IMPERIAL COUNTY
CONSERVATION AND OPEN SPACE ELEMENT

Prepared by:

Planning and Development Services Department
County of Imperial
801 W. Main Street
El Centro, California 92243-2875

Jim Minnick
Planning Director

Adopted by:

Imperial County Board of Supervisors

March 8, 2016

SECTION PAGE

LIST OF FIGURES

LIST OF TABLES

This page intentionally left blank

I. INTRODUCTION

A. PREFACE

The County of Imperial is rich in natural and cultural resources. The landscape is dominated by native desert habitat and stark topographic features. Prime soils, Colorado River water, and year-round sunlight facilitate productive agricultural operations. Natural mineral resources are extracted for commercial purposes. The wide expanses of open space are useful for military maneuvers and recreational activities.

Population growth and subsequent development have intensified the rate of resource use and regional environmental degradation. Urban expansion is decreasing the amount of land available for agriculture and mineral extraction. The pollution of air and water has diminished regional aesthetics, limited recreational opportunities, and threatened public health. Native desert biological communities are being impacted by accelerated human activity in Imperial Valley.

The Conservation and Open Space Element is the official conservation guide for all decision makers including the County Board of Supervisors, Planning Commission, Airport Land Use Commission, and various Departments in addition to other Federal, State, or County governmental decision-making bodies. It shall also serve as a guide to the private sector, business community, investors, and developers in the County.

This Conservation and Open Space Element is concerned with the following environmental resources:

- Biological Resources
- Cultural Resources
- Geology and Soils
- Mineral Resources
- Regional Aesthetics
- Air Quality and Climate Change
- Open Space and Recreation

Separate elements have been prepared for the conservation of water, agricultural, and renewable energy resources. These three types of resources are critical to the long-term economic stability of Imperial County. In addition, the issues surrounding these resources are particularly complex. The Water Element, Agricultural Element, and Renewable Energy and Transmission Element contain focused goals and objectives, and an implementation program specific to each resource.

The implementation of this Element does not negate the environmental review process required by the California Environmental Quality Act (CEQA) and the National Environmental Policy Act (NEPA). While a proposed project may conform to the Conservation and Open Space Element, it may still be subject to environmental impact assessment pursuant to CEQA and NEPA. This Element supports environmental review for proposed projects in addition to determining the extent that proposed projects promote the Element goals and objectives.

B. PURPOSE OF THE ELEMENT

The County is charged with the responsibility of conserving environmental and cultural resources while encouraging economic development and growth. The Conservation and Open Space Element identifies goals and policies to ensure the managed use of environmental resources. The goals and policies are also designed to prevent limiting the range of resources available to future generations.

The purpose of the Conservation and Open Space Element is to:

- Promote the protection, maintenance, and use the County's natural and cultural resources with particular emphasis on scarce resources and resources that require special control and management.
- Prevent the wasteful exploitation, destruction, and neglect of the State's natural and cultural resources.
- Recognize that natural resources must be maintained for their ecological value as well as for the direct benefit to the public.
- Protect open space for the conservation of natural and cultural resources, the managed production of resources, outdoor recreation, and public health and safety.

C. APPLICABILITY

The Conservation and Open Space Element applies to all unincorporated land within the County of Imperial. Each incorporated City must adopt its own general plan and subsequent conservation and open space elements. It is the intent of the County to be consistent and supportive of complementary plans of incorporated areas. Since natural and cultural resources characteristically cross political boundaries, planning for the use and conservation of resources requires cooperation between various governmental divisions and departments. When an area falls under more than one jurisdiction, each should consider the Conservation and Open Space Element goals and programs of the other jurisdiction when making decisions. All public and private projects are subject to this Element.

It is not the intent of this Element to impose any restriction on the use of any private land which would constitute a taking or a damaging of property for public use. In the event that the County Board of Supervisors, Planning Commission, or an official of the County determines that the application of any provision of this Element to any private property constitutes such a taking, the restrictions should be modified or waived to the extent necessary to avoid the taking or damaging.

It is specifically not the intent of this Element to preclude the placement, construction, or the use of one single-family residence on any parcel that existed as a legal parcel of record at the time of the adoption of the Element, and no individual or public safety hazard or danger would result from such placement or construction. Furthermore, the inventory of conservation issues and subsequent policy discussed in this Element are not intended to be all inclusive and may be amended when additional information or studies become available or are required.

II. EXISTING CONDITIONS AND TRENDS

This report focuses on specific environmental resources in Imperial County, including biological and cultural resources, soils, minerals, regional aesthetics, air quality, and open space.

A. BIOLOGICAL RESOURCES

1. Plants and Vegetation Communities

An extensive range of vegetation communities have been identified in the County, including native and nonnative communities on which sensitive and common plant and wildlife species are dependent. Native communities include wetland and riparian habitats within fresh and saltwater systems and high and low elevation woodland and scrub habitats, some with saline and alkali soil conditions. Nonnative communities include agriculture, annual grasslands, and tamarisk or salt cedar stands.

2. Sensitive Habitats and Conservation Areas

A number of sensitive vegetation communities, identified by the California Department of Fish and Wildlife (CDFW) and others as rare and worthy of consideration in California, occur in Imperial County. Of the total 2,942,080 acres in the County, approximately 215,220 are sensitive habitats. Sensitive vegetation and habitats are a conservation priority for local, State, and Federal regulatory agencies because they have limited distribution and support a variety of sensitive plants and wildlife.

Several areas in Imperial County have been designated as environmentally sensitive areas by various public agencies or entities. These include US Fish & Wildlife Service (USFWS)-designated critical habitat, USFWS National Wildlife Refuges, Bureau of Land Management (BLM), National Landscape Conservation System (NLCS) lands, BLM Desert Wildlife Management Areas (DWMAs) and Areas of Critical Environmental Concern (ACECs), wilderness and wildlife areas, State parks, and other protective designations by Federal and State agencies in the County. Many of these areas have development restrictions or prohibitions to facilitate conservation of biological resources or other sensitive resources. These areas are shown on **Figures 1 through 3.**

Critical habitat is a Federal designation to provide essential habitat for listed species. While development is not precluded from designated critical habitat, these areas have been afforded legal protection which requires developers to consult with the USFWS if a project would affect critical habitat or any listed species. Critical habitat units support important habitat and often support more than one listed species. Critical habitat is designated in Imperial County for the following species:

- Desert pupfish
- Razorback sucker
- Desert tortoise
- Peirson's milk-vetch
- Peninsular bighorn sheep
- Yellow-billed cuckoo (proposed as of October 2014)

3. Sensitive Species

A number of species listed or candidates for listing as endangered or threatened under the Endangered Species Act or California Endangered Species Act, or listed as rare under the

California Native Plant Protection Act, have been recorded or potentially occur in Imperial County. Listed species documented in the California Natural Diversity Database (CNDDB) for the County include:

- Desert tortoise
- Barefoot gecko
- Townsend's big-eared bat
- Peninsular bighorn sheep
- Western yellow-billed cuckoo
- Southwestern willow flycatcher
- Least Bell's vireo
- Arizona Bell's vireo
- Western snowy plover
- California black rail
- Yuma clapper rail
- Gilded flicker
- Gila woodpecker
- Elf owl
- Bald eagle
- Desert pupfish
- Bonytail
- Colorado pikeminnow
- Razorback sucker
- Peirson's milk-vetch
- Wiggins' croton
- San Diego button-celery
- Algodones Dunes sunflower

Numerous other special-status species occur in the County, including wildlife designated as California fully protected species or California Species of Special Concern as well as plants identified as California Rare Plant Rank. Several California Species of Special Concern are of particular conservation focus in Imperial County including the burrowing owl and flat-tailed horned lizard. Approximately two-thirds of the burrowing owl population in California occurs in agricultural areas in the Imperial Valley. There are three regional populations of flat-tailed horned lizard in California; two of these (representing the majority of the range in the State) occur in Imperial County. These are on the west side of the Salton Sea/Imperial Valley and on the east side of the Imperial Valley; both populations extend south into Mexico.

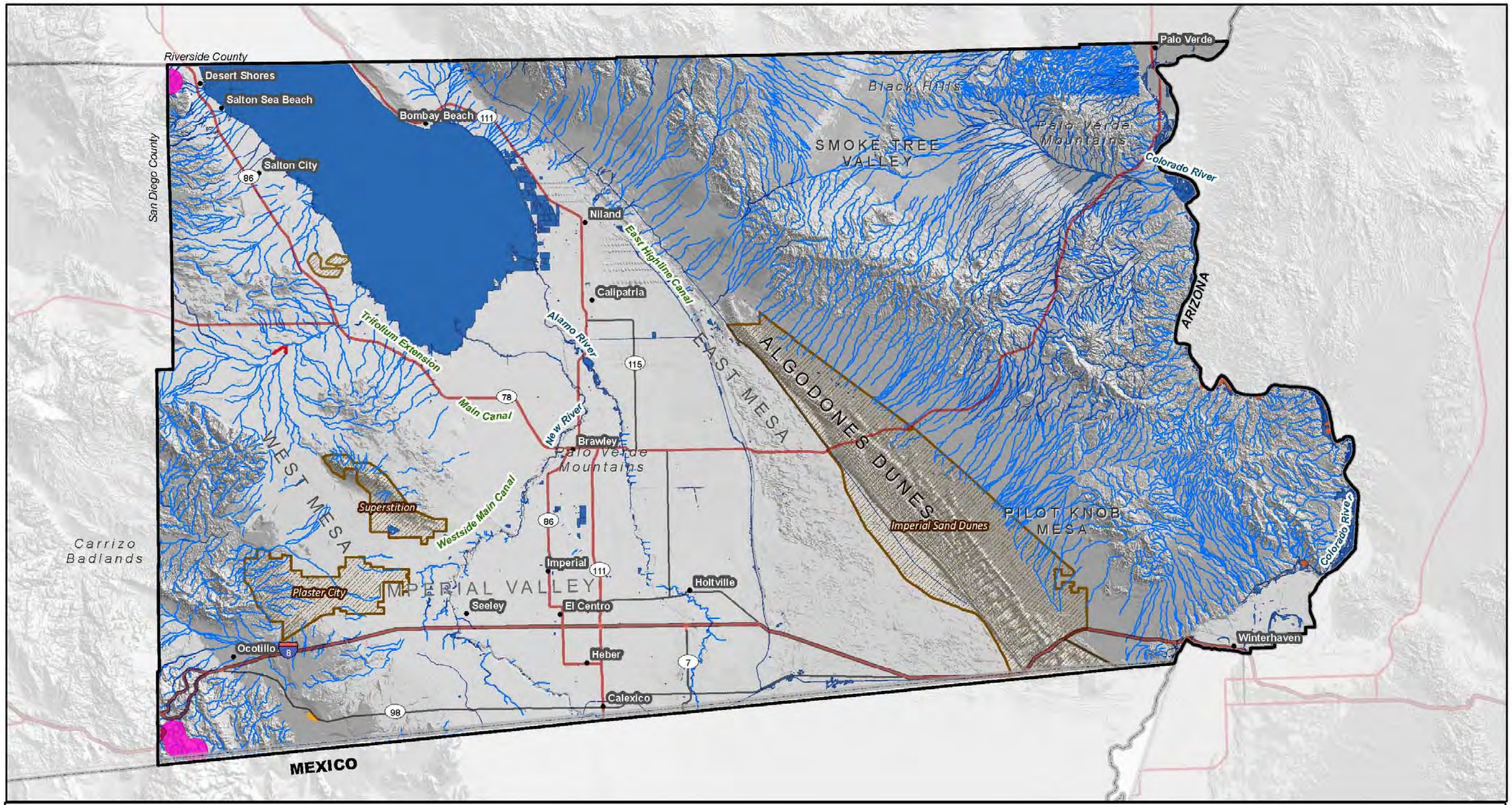

Figure 1

Imperial County Sensitive Habitats

March 2016

This page intentionally left blank.

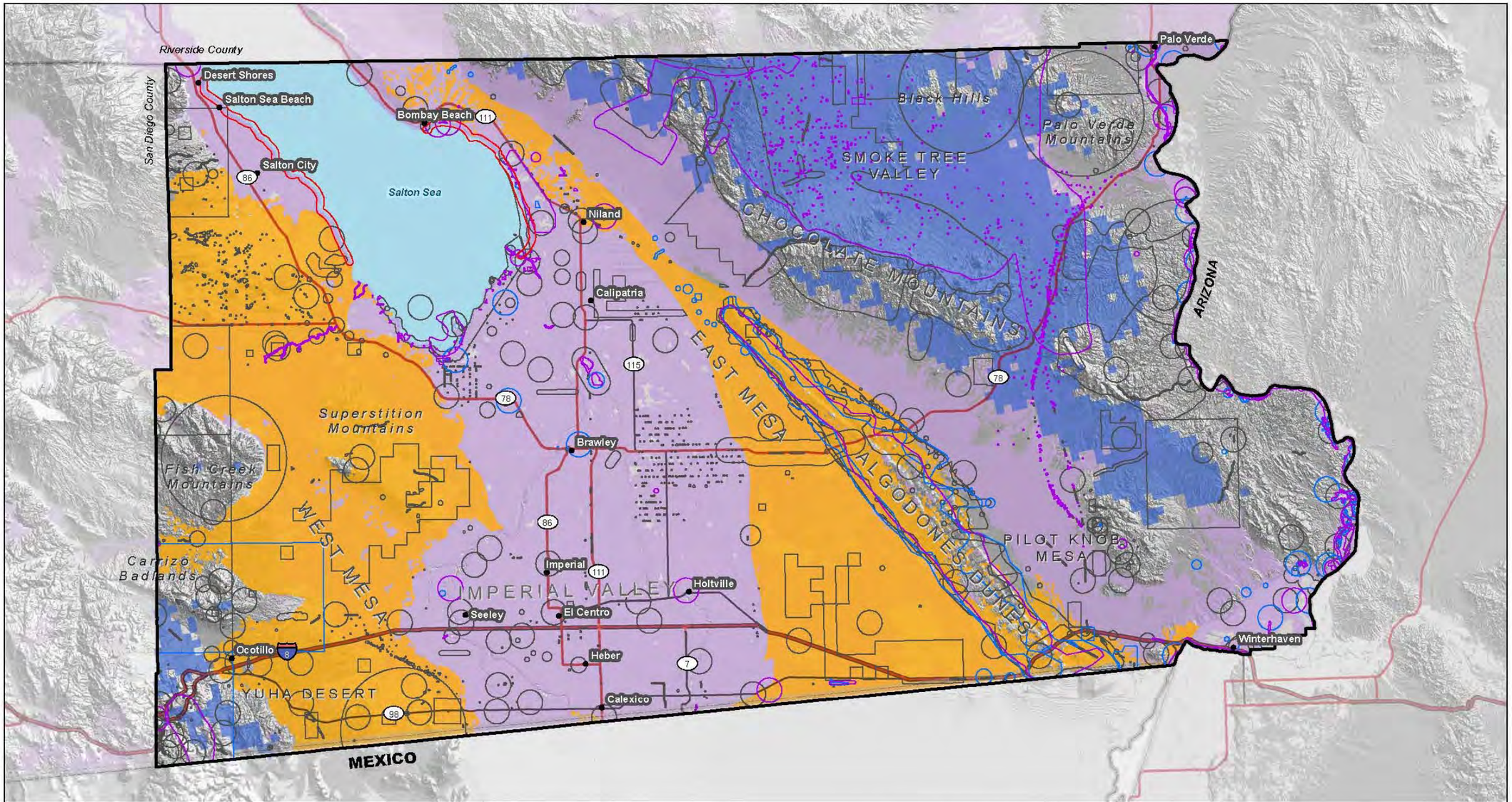

Figure 2

Imperial County Sensitive Species

February 2015

This page intentionally left blank.

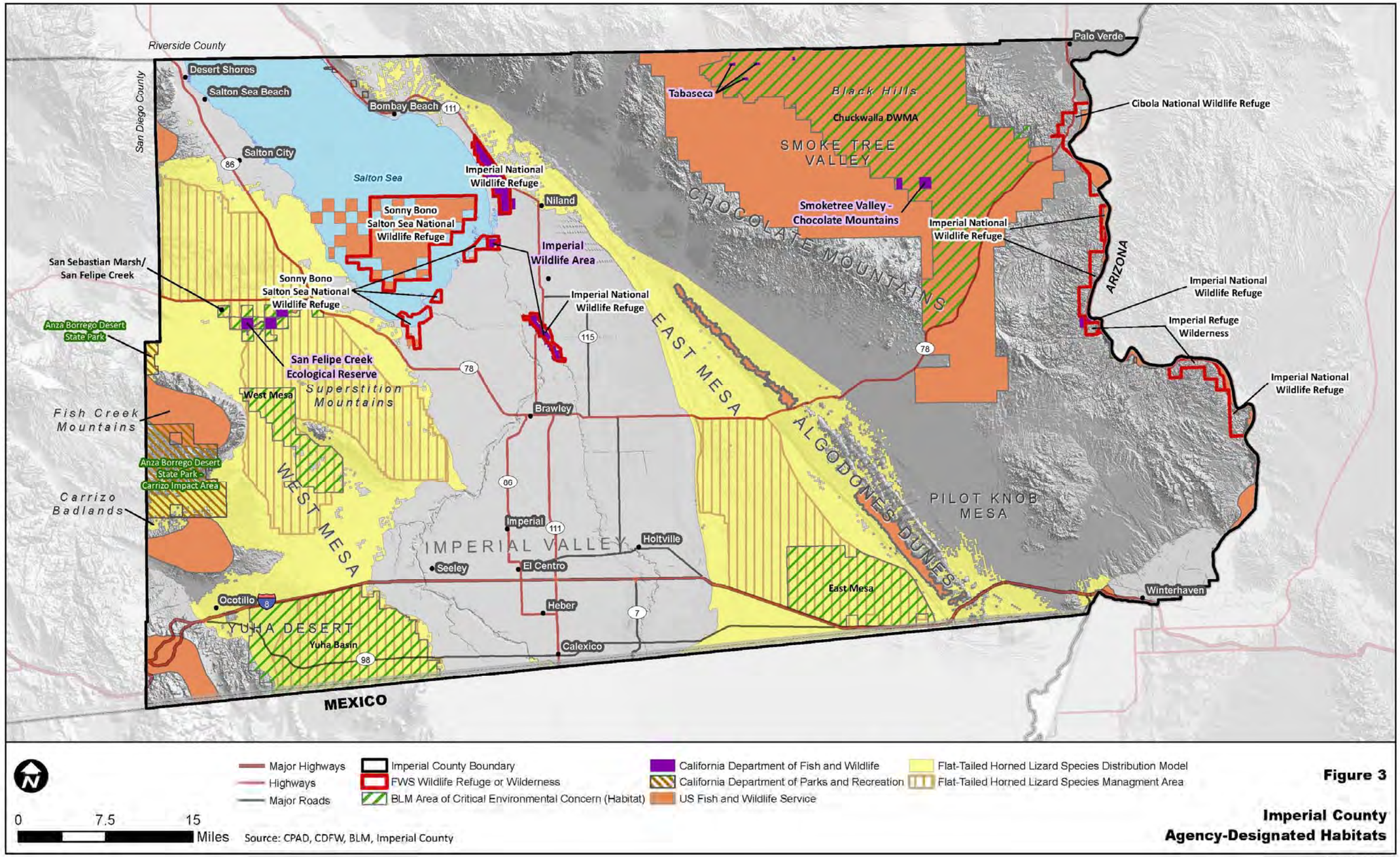

Figure 3

Imperial County
Agency-Designated Habitats

March 2016

This page intentionally left blank.

B. CULTURAL RESOURCES

In Imperial County most archeological resources can be separated into two distinct sections: prehistoric and historic. All prehistoric archeology involves indigenous culture that existed prior to Spanish colonization in 1769. Additional cultural resources, which have been identified by the State of California, include sacred lands that are manifested in cultural landscapes.

1. Prehistoric Resources

Prehistoric resources are the remains of activities in the past prior to sustained European contact. The Cahuilla, Tipai, and Quechan inhabited the Imperial County area since before Spanish contact. The Cahuilla people occupied a territory in south-central California, between the San Bernardino Mountains in the north to Borrego Springs and the Chocolate Mountains in the south, east to the Colorado Desert, and west into the San Jacinto Plain near Riverside and the Palomar Mountains. The Tipai, previously called Diegueño or Kamia, occupied an area that roughly extended from the Pacific Coast at San Diego eastward to the Sand Hills of Imperial County as well as south into modern-day Mexico. The Quechan, also known as the Yuma, continue to occupy their traditional territory at the confluence of the Gila and Colorado rivers at the edge of the California, Arizona, and Mexican borders. From here their territory stretched north along the Colorado River and to the east of the Gila River.

The previous studies conducted in the County identified resources including villages, rock shelters, habitation sites, lithic scatters, trails, rock art localities, and milling stations. Isolated artifacts not associated with the larger sites have also been identified in Imperial County. In addition, cultural landscapes and ethnographic resources are elements of the natural resource types that are assigned cultural significance by traditional users or groups, such as geographic features. Previously identified prehistoric resources can be used as a general guideline to understanding the nature of localized prehistoric inhabitation and provide assistance in determining areas of known sensitivity for prehistoric resources.

The most important feature in the study of the prehistory and history of Imperial County is Lake Cahuilla, the modern iteration of which is the Salton Sea. This enormous lake periodically formed when flooding in the Colorado River broke through low-lying areas and flooded the Salton Trough, inundating up to an average elevation of about 40 feet above mean sea level. Because Lake Cahuilla was a rare source of fresh water in the desert, human populations would have been attracted to live and gather plant and animal resources near the lake. Human occupation sites mark the ancient shorelines both above the high stand mark and along the lower, retreating shorelines.

To date, 14,860 prehistoric and historic period resources have been recorded in Imperial County. Of those, 12,398 are archaeological sites and the rest are either isolates or historic structures. As the entire County has not been surveyed, additional sensitive prehistoric and historic period cultural resource are likely to exist throughout Imperial County.

A prehistoric predictive model was developed in order to provide a general idea of potential locations of cultural resources present in the County. This model focused on proximity to water sources, access to food, access to tool-making sources (obsidian), and geographic slope. Using this criteria, regions most sensitive for prehistoric resources were determined to be those areas within 1,000 meters of a water source (in this case, named streams, waterbodies, wetlands, and playas/dry lakes), within 200 meters of an ecotone boundary (access to food), near obsidian stone tool sources, and less than 16.1 percent slope. These sensitive areas are depicted on **Figure 4.**

2. Historic Resources

The historic period in California is generally broken into three parts: the Spanish period (1769 to 1821), the Mexican period (1821 to 1848), and the American period (1848 to present).

Although the first Europeans arrived in Imperial County with the Hernando de Alcarón expedition of 1540, the Spanish did not begin to colonize what was then known as Alta California until 1769. Spanish settlements were largely restricted to the West Mesa, now known as the Yuha Desert, in the southwestern portion of the County. Inhospitable terrain of the Algodones Dunes discouraged early exploration and colonization of the eastern portions of the County. Included in the early settlement sites of the Spanish period are the Mission Puerto de Purísima Concepción (1780) and Mission San Pedro y San Pablo de Bicuñer (1781) along the de Anza Trail, along the Colorado River in the southeast portion of the County. As described above, both missions were destroyed in 1781 in conflicts between the Spanish and the Quechan.

The Mexican Period in Imperial County was characterized by efforts to reestablish an overland route from Sonora to the California coast in order to encourage trade and settlement. Following several expeditions, the Sonora Road was established in 1825, following portions of the Juan Bautista de Anza Trail through the County before turning westward through the Carrizo Corridor and branching toward both San Diego and Temecula **(see Figure 5)**.

The American Period in Imperial County is marked by further exploration and by development of the agricultural potential of the Imperial Valley. The signing of the Treaty of Guadalupe Hidalgo in 1848 and the U.S. acquisition of California was immediately followed by the establishment of the Southern Emigrant Trail, which largely followed the old Sonora Road. This route was extensively used by settlers, miners, and the military on their way to California. Until the twentieth century, few people permanently settled in Imperial County. Irrigation measures, vital to the County's development during this period, were first made by the California Development Corporation using water from the Colorado River, which was then diverted to the Alamo River via the Alamo Canal. Irrigation from the Alamo Canal Project soon prompted a large population boom in the area; the town sites of Imperial, Brawley, Calexico, Heber, and Silsbee were constructed as part of irrigation projects to entice settlers to become permanent residents. In 1904, heavy silting greatly reduced the amount of water reaching the Imperial Valley farmers. Under stress, the California Development Company attempted to create a breach at the banks of the Colorado River; however, this action caused uncontrolled flooding of the Salton Sink through 1905 and resulted in the Salton Sea. Flooding to the region was not completely halted until 1907. Railroad lines, including a branch of the Southern Pacific Railroad extending through the Imperial Valley to Calexico (1903), were constructed throughout portions of the County. The introduction of automobiles also prompted the development of new and better roads.

Identified historic period built-environment and archaeological resources represent a range of activities including, but not limited to, mining, transportation, and ranching/homesteading and are represented throughout the County. The number of previously identified historic period resources is smaller than prehistoric resources, making determination of areas of known or established sensitivity difficult. It is possible, however, to make informed deductions about the types of resources likely to be encountered based on the previously identified sites in combination with the documented history of the area.

Similar to the prehistoric model, a historic period predictive model was developed based on criteria that includes proximity to water sources, proximity to exploration routes/surveys/trails, locations of historic period railroad towns, and the locations of dams/mines/wells over 50 years

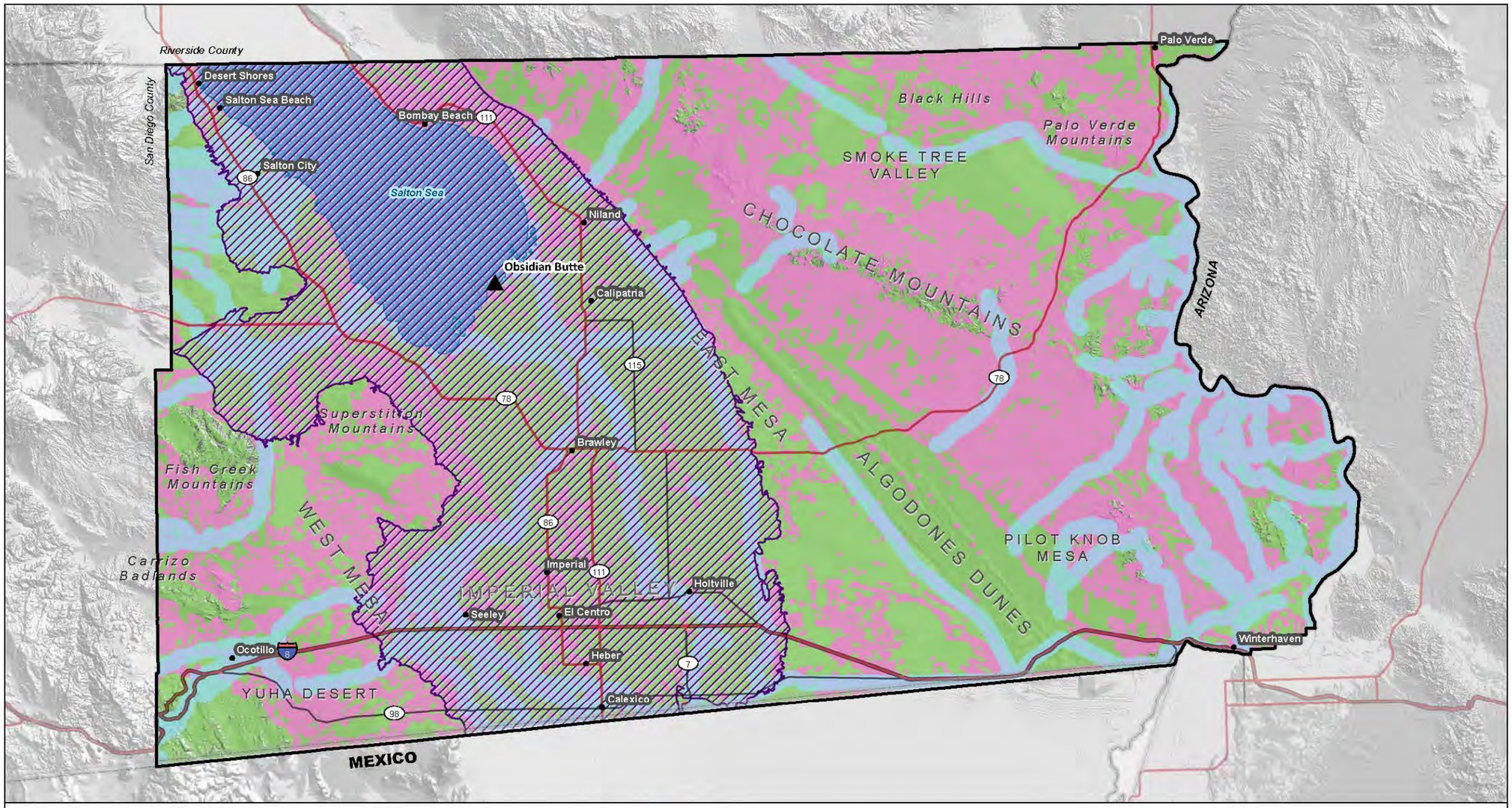

Figure 4

Imperial County
Areas of Heightened Prehistoric Sensitivity

February 2015

This page intentionally left blank.

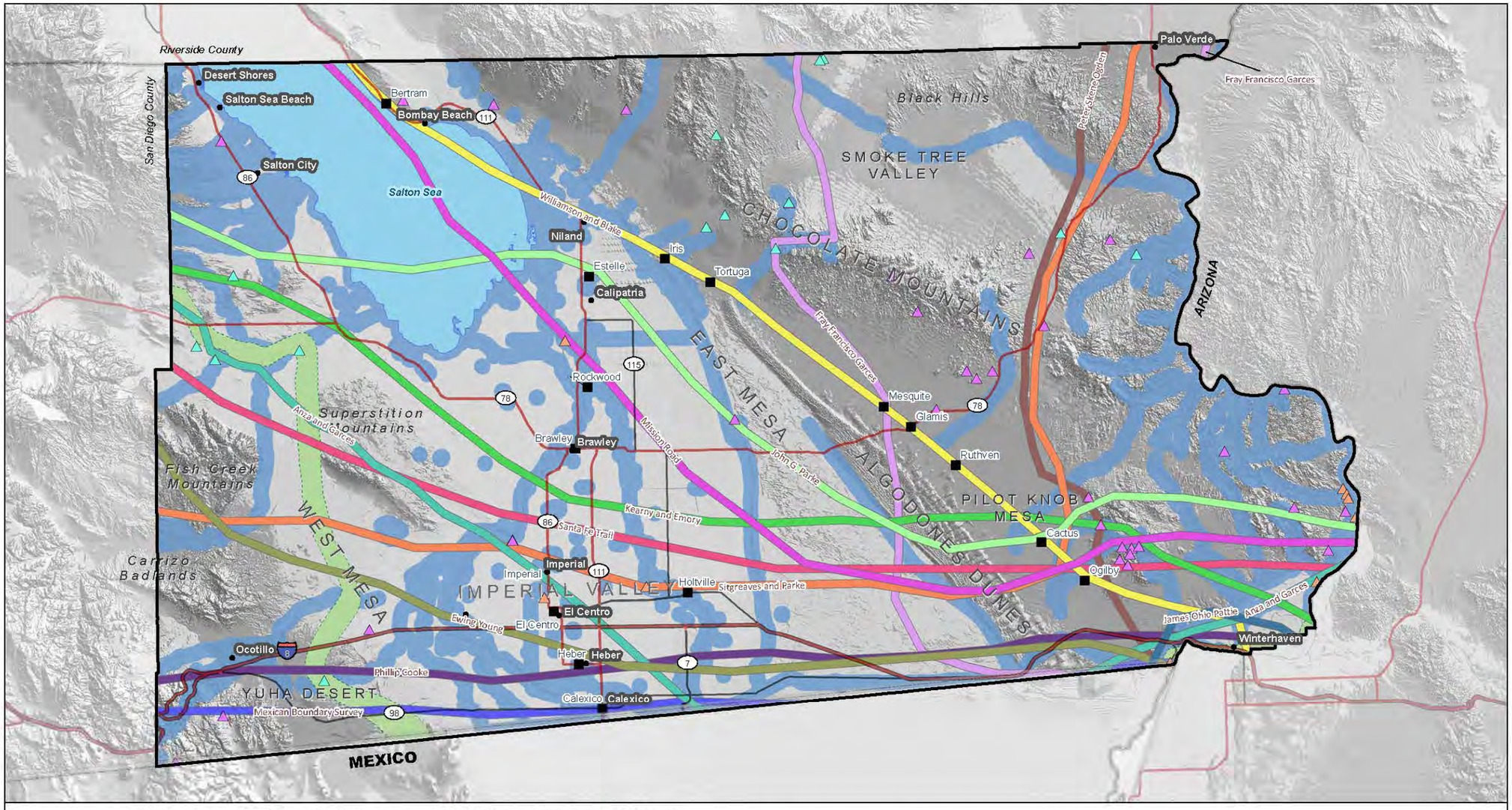

Figure 5
Imperial County
Areas of Heightened
Historic Period Sensitivity

February 2015

This page intentionally left blank.

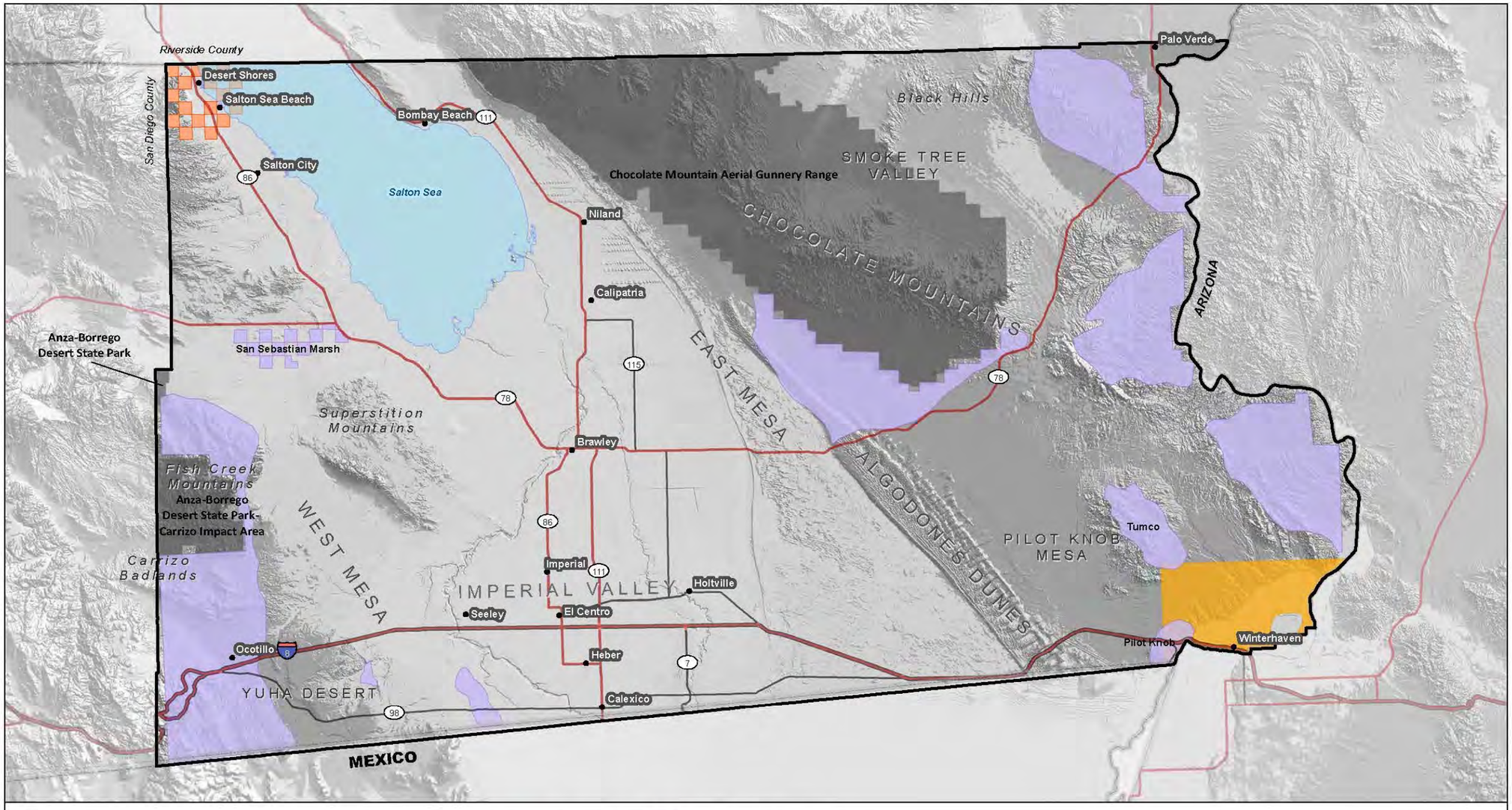

Figure 6

Imperial County
Known Areas of Native American Cultural Sensitivity

February 2015

This page intentionally left blank.

C. GEOLOGY AND SOILS

Imperial County is underlain by three natural geomorphic provinces: the Peninsular Ranges, the Colorado Desert, and the Mojave Desert. Each of these provinces is a naturally defined geologic region that displays a distinct landscape or landform with defining features based on geology, faults, topographic relief, and climate.

Soils in Imperial County are formed by stratified alluvial deposits. A large portion of the County includes fine-textured lakebed sediments. Approximately 28 known soil types occur in Imperial County: Aco, Antho, Carrizo, Carsitas, Chuckwalla, Cibola, Coachella, Fluvaquents, Gadsden, Gilman, Glenbar, Holtville, Imperial, Indio, Kofa, Lagunita, Laposa, Laveen, Mecca, Meloland, Niland, Orita, Ripley, Rositas, Salorthids, Superstition, Torriorthents, and Vint. Parent material includes Glenbar, Holtville, and Imperial soils. Indio, Vint, Meloland, and Rositas soils are derived from windblown and channel silts. Rositas and Carsitas soils were formed in beach deposits. Sand and gravelly fan materials are the parent materials of Carsitas and Rositas soils.

The clay material deposited in riverine environments during the formation of the Colorado River delta terrace is the source of the Holtville and Imperial soils. Niland soils occur in clayey lakebed. Several large gullies have formed from runoff water leading into the Salton Sea. The Antho, Laveen, Niland, and Superstition soils were formed from fan sediment. Fine-textured basin deposits provide the source material for Glenbar, Holtville, and Imperial soils.

The Imperial Formation is a geologic area that occurs in Imperial County and is exposed in the southeast Coyote Mountains on three major facies. Facies A includes shoreline deposits associated with alluvial fans. Facies B includes supratidal gypsum to low-tide terraces. Facies C includes siltstones and clays, indicating a filling of the Salton Trough by fine clastic material from the Colorado River. Rock units in Imperial County can be described as Precambrian and placed into two groups, the Chuckwalla complex and the Orocopia Schist. The rocks in the Chuckwalla complex include quartz biotite gneiss and various foliated hybrid granitic rocks and granophyres that range in composition from gabbro to granite. Rocks in the Orocopia Schist include weatherized mica-covered surfaces. The rock units are sericite-albite schist, quartz sericite schist, phyllite, and quartzite. Marble occurs in the schist in the Orocopia Mountains. Rock types or geological material known to occur in Imperial County include alluvium, andesite, basalt, conglomerate, dune sand, gneiss, granodiorite, limestone, mica schist, plutonic rock, rhyolite, sandstone, schist, and tonalite.

Existing conditions for geologic activity in Imperial County include earthquakes, the principal geologic activity affecting public safety in the County. Imperial County contains several major active faults, including the Brawley Fault Zone, the Coyote Creek Fault and the Elmore Ranch Fault (in the San Jacinto Fault Zone), the Elsinore Fault, the Imperial Fault, the Laguna Salada Fault (in the Elsinore Fault Zone), the San Andreas Fault, the Superstition Hills Fault, and the Wienert Fault (in the San Jacinto Fault Zone).

Figure 7 shows the major faults and seismic hazard ratings in Imperial County.

This page intentionally left blank

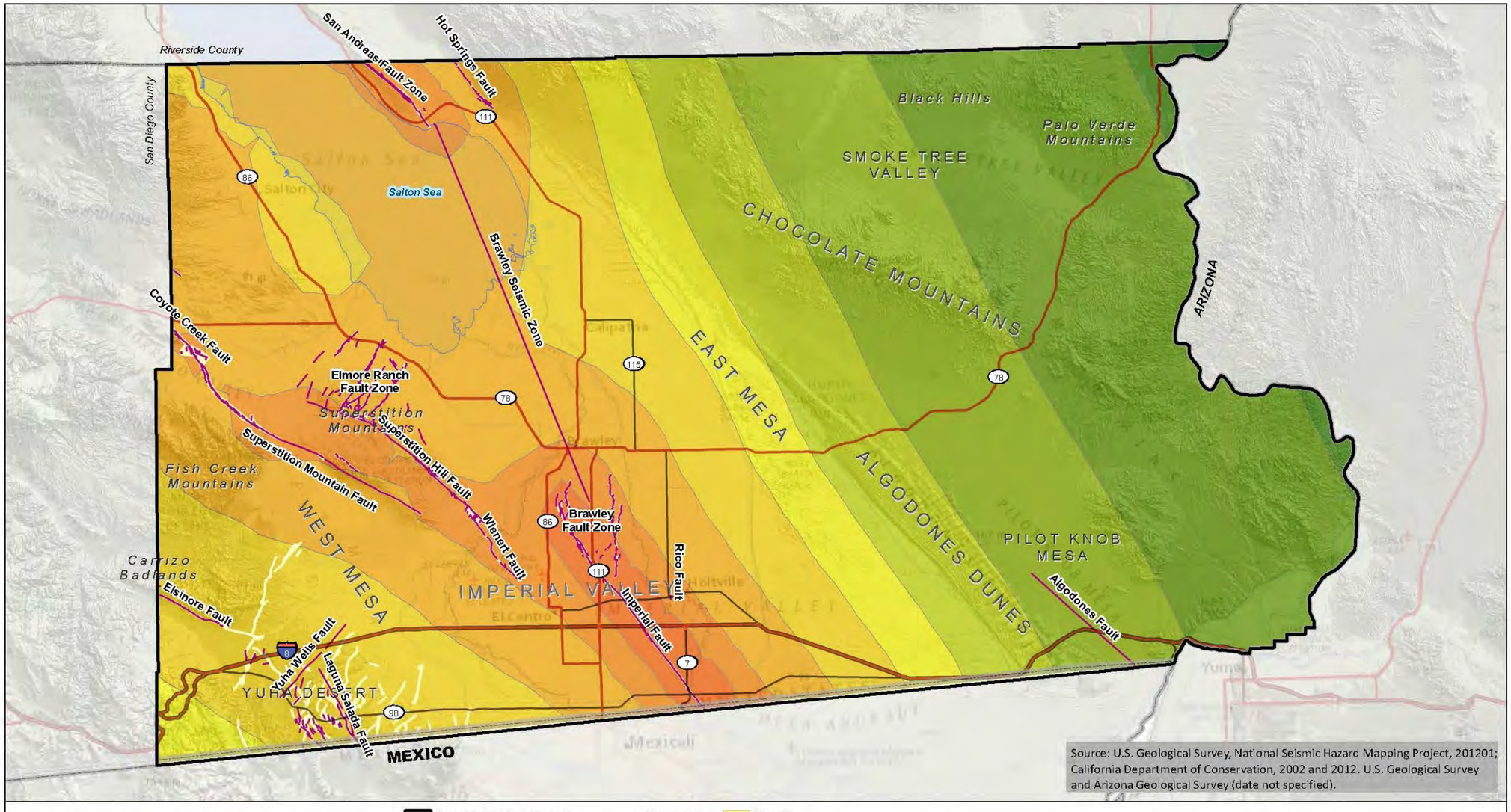

Figure 7

Imperial County Seismic Hazards

February 2015

This page intentionally left blank.

D. MINERAL RESOURCES

A number of mineral resources in Imperial County are currently being extracted. These mineral resources include gold, gypsum, sand, gravel, lime, clay, stone, kyanite, limestone, sericite, mica, tuff, salt, potash, and manganese. Several issues influence the extraction of mineral deposits in Imperial County, including the location of geologic deposition, the potential for impacts to the environment, and land use conflicts. As a result, the extraction of mineral resources is limited to a relatively small number of sites throughout the County. **Figure 8** depicts the distribution and location of mineral resources and mining sites in Imperial County.

Mineral deposits are an important natural resource that contribute to the economic development of the State and the County and provide essential raw materials for construction projects throughout the region. However, mineral extraction can result in numerous environmental impacts, including air pollution and degradation of air quality, noise pollution, accentuation of geologic hazards, surface and groundwater pollution, risks to public safety, destruction of cultural resources, and impacts to wildlife and plant species.

This page intentionally left blank.

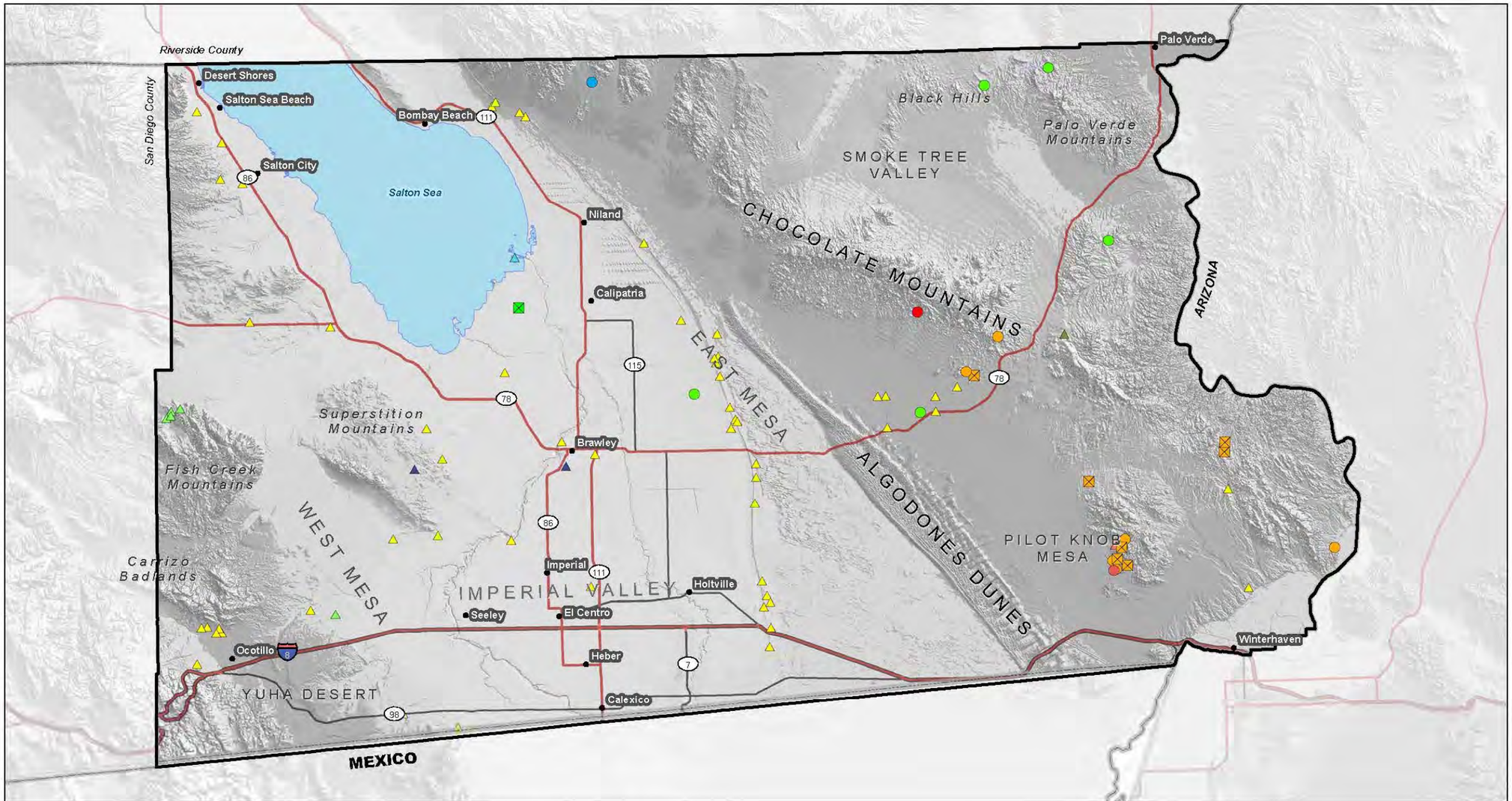

Figure 8

Imperial County
Existing Mineral Resources

February 2015

This page intentionally left blank.

E. REGIONAL AESTHETICS

1. Scenic Visual Resources

Imperial County extends over 4,597 square miles between Riverside County to the north, Mexico to the south, San Diego County to the west, and Arizona to the east. The County's visual character varies greatly. It includes natural scenic visual resources such as deserts, sand dunes, mountains, and the Salton Sea. Many of the natural scenic resources are located on land under Bureau of Land Management (BLM) jurisdiction. County areas for BLM-managed lands are shown on **Figure 9**, and depict the values of the County's visual resources based on their Visual Resource Inventory (VRI) process. Areas with a moderate to high value for maintenance of visual quality could represent opportunities for conservation and open space areas. Although these areas are within BLM lands, private inholdings under the County's jurisdiction may be available for conservation or open space designations. The County also includes agricultural areas and built environments such as urban areas and solar, wind, and geothermal energy development.

The desert areas include the Yuha Desert, West Mesa, lower Borrego Valley, East Mesa, and Pilot Knob Mesa. The Yuha Desert contains unique geologic features including sand chimneys and painted gorge formations that add scenic value to the natural landscape. Cultural features in the Yuha Desert include large earth sculptures, or geoglyphs, constructed by prehistoric Native Americans. The West Mesa, lower Borrego Valley, East Mesa, and Pilot Knob Mesa consist of desert vegetation from the creosote scrub community. Other plants include ocotillo, mesquite, palo verde, saltbush, and encelia.

Also contributing to the scenic quality of the desert areas are the springtime blooms of desert wildflowers. In springtime, up to 60 species of annuals may be viewed. A typical scene would include large, white evening primroses gleaming over variegated carpets of sand verbena, sunny desert dandelion, and desert sunflower, which are often joined by desert marigold, coreopsis, and other daisy family species.

Mountains are a significant visual resource in Imperial County. The eastern foothills of the Peninsular Range run along the County's southwest side. These foothills include the In-Ko-Pah or Jacumba Mountains, Coyote Mountains, and Fish Creek Mountains. East of these mountain/wilderness areas is Mount Signal, located along the international border on the eastern edge of the Yuha Desert, west of Calexico, which is visible from most of the Imperial Valley.

The southeast foothills of the Santa Rosa-San Jacinto Mountains are a prominent feature from State Route (SR) 86. The Superstition Mountains and Superstition Hills, located in West Mesa southeast of the lower Borrego Valley and west of Westmorland and Brawley, are visible looking north from I-8 west of El Centro and from SR 86 between El Centro and the Salton Sea. In the northeastern part of the County, the Chocolate Mountains, named because of their color, stretch northwest by southeast between Riverside County and the Colorado River. They are bisected by SR 78 between Glamis and the Palo Verde area. Portions of these mountain areas are designated by the BLM as Wilderness Areas, part of the National Wilderness Preservation System. The intention of this designation is to secure natural areas for the public purposes of recreation, scenic, scientific, educational, conservation, and historical use.

The Algodones Dunes are the largest sand dunes in California. This dune system covers approximately 160 square miles, extending for 45 miles along the eastern edge of the Imperial Valley agricultural region in a band averaging 6 miles in width. They extend lengthwise in a northwest–southeast direction and are situated between the East Mesa and Pilot Knob Mesa areas. The dunes consist of shifting sands and attain a thickness of at least 200 feet in some parts.

Rising to heights of over 300 feet above the surrounding desert floor, the dunes are a well-known landmark to County residents, and thousands of highway travelers pass them annually. The Imperial Sand Dunes are considered a significant visual resource in the County due to their unique scenic qualities, historic features, and prominent visibility to a large number of people.

The Salton Sea is located in the northwestern portion of the County and extends into Riverside County, measuring 35 miles in length and a surface area of approximately 376 square miles. The Salton Sea has been sustained by agricultural drainage from the Imperial, Coachella, and Mexicali valleys; rainfall; storm runoff from the surrounding mountains; and groundwater inflow. The area represents an important wildlife habitat area and provides migrating and wintering habitat for thousands of waterfowl and other birds. Masses of these birds are visible from the shores of the Salton Sea. This waterbody represents a unique visual resource because of its size, its location in a desert area, and its value to wildlife.

Anza-Borrego Desert State Park is located on the eastern side of San Diego County, with portions extending east into Imperial County and north into Riverside County. The park features washes, wildflowers, palm groves, cacti, sweeping vistas, and many miles of hiking trails.

The Osborne Overlook offers scenic views of the Imperial Sand Dunes Recreation Area, North Algodones Dunes Wilderness, and surrounding area. The overlook is located among the largest and tallest dunes. The Juan Bautista de Anza Overlook provides a view of the Yuha Basin and surrounding landscape.

2. Scenic Highways

The California Department of Transportation (Caltrans) manages the California Scenic Highway Program. The goal of the program is to preserve and protect scenic highway corridors from changes that would affect the aesthetic value of the land adjacent to the scenic corridor. No State scenic highways have been designated in Imperial County; however, the following four routes in Imperial County are considered eligible for a State scenic highway designation:

- Interstate 8: The initial segment for future scenic highway designation status lies between the San Diego County line and its junction with SR 98 near Coyote Wells. This segment, known as Mountain Springs Grade, has a long, rapid elevation change, remarkable rock and boulder scenery, and plant life variations.

- SR 78: The portion of SR 78 from the junction with SR 86 near Julian to the San Diego County line is eligible for a future scenic highway designation. That area is considered scenic because of its desert characteristics and view of Salton Sea.

- SR 111: SR 111 travels along the northeast shore of the Salton Sea and is eligible for a future scenic highway designation from Bombay Beach to the County line. The drive contrasts the flat, wide portions of the Salton Sea with the rugged variations of the Chocolate Mountains.

- Borrego-Salton Seaway: County Highway S-22 is also known as Borrego-Salton Seaway; it begins in Salton City and ends at the community of Borrego Springs in San Diego County. This route includes views of Clay Point, the Anza Verde Wash, and scenic viewpoints.

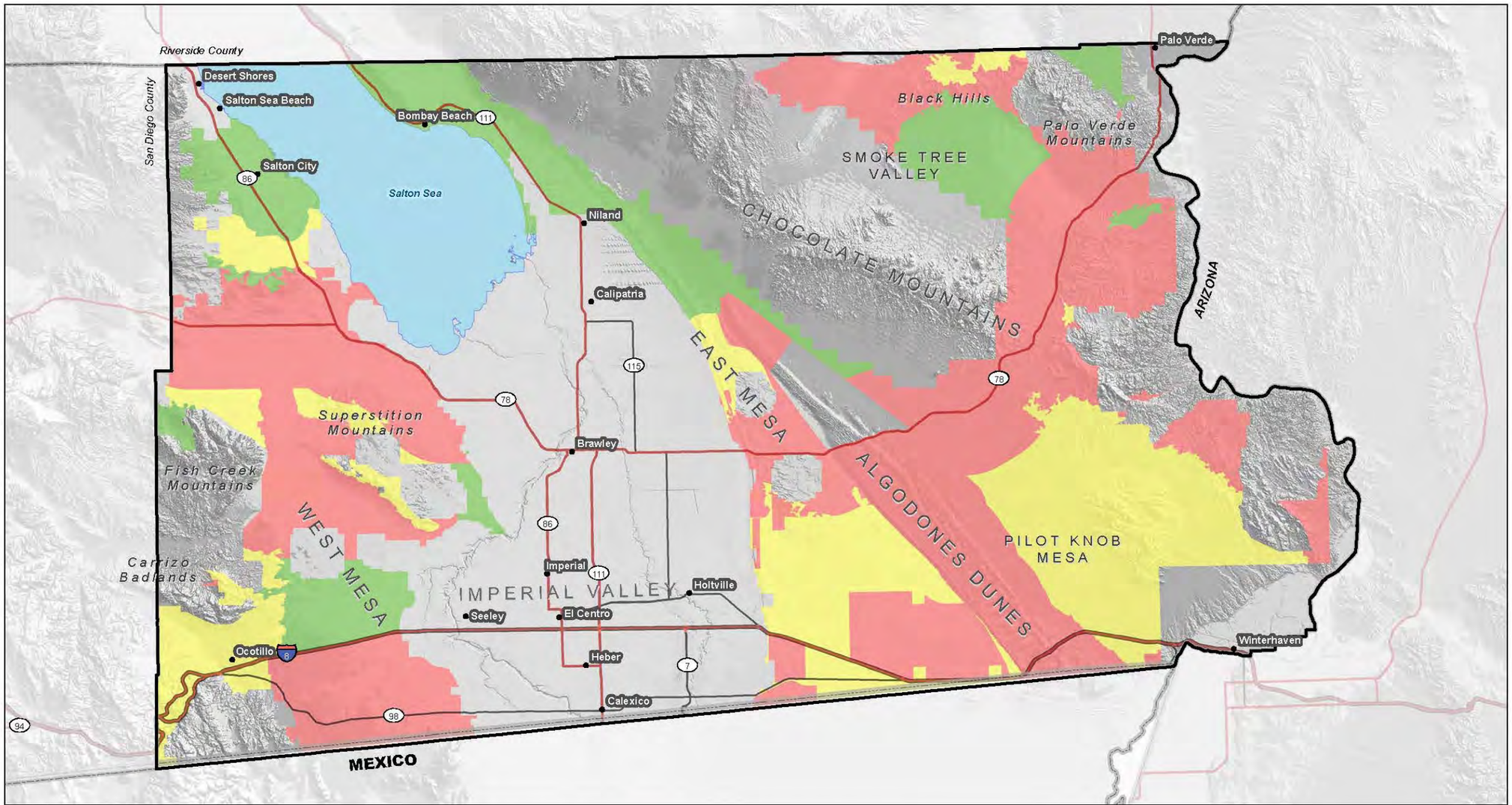

Figure 9

Imperial County
VRI Sensitivity Level Ratings for BLM-Managed Lands

February 2015

This page intentionally left blank.

3. Other Visual Characteristics

Agricultural areas dominate the visual scenes in Imperial Valley 115 and are characterized by square or rectangular fields, typically 40 to 80 acres in area, that are sometimes interspersed with scattered farmhouses and related agricultural structures. These agricultural regions are crossed by irrigation canals and drainages that parallel dirt farm roads. Several cattle feed yards, other animal ranches, and aquaculture farms are located throughout the Imperial Valley, as are a few agricultural processing/packaging plants including Spreckels Sugar, fertilizer/chemical plants, and other agricultural-related operations.

Imperial County's urban areas include the areas surrounding seven incorporated cities (Brawley, El Centro, Imperial, Westmorland, Holtville, Calipatria, and Calexico) and five unincorporated communities (Heber, Niland, Seeley, West Shores/Salton City, and Winterhaven). These areas are characterized by low-rise, mixed-use development and contain or propose a broad range of residential, commercial, and industrial uses.

Military activities are centered at the Naval Air Facility El Centro, located north of Seeley, with military field and aerial operations conducted on approximately 350,000 acres in the Chocolate Mountains, 76,800 acres in the Superstition Mountains, and at other smaller sites throughout the County.

Certain areas previously used as farmland are being converted to solar power facilities. If all solar projects currently proposed and under review are approved, Imperial County would have over 23,000 acres of solar development.

4. Sources of Light and Glare

Light and glare may be created day or night from various residential, commercial, and industrial uses throughout the County. Potential sources of glare during the day may include surface water, motor vehicles either parked or traveling on surrounding roadways, paved surfaces, building windows, and solar facilities. At night, light sources include street lamps, accent and security lighting on buildings, parking lot lighting, vehicle headlights, existing transmission lines, and some park facilities. The Ocotillo Wind Energy Facility is located along I-8 near the western border between Imperial and San Diego counties. This project has red and white flashing lights on the towers that dominate nighttime views for Ocotillo residents and travelers along Interstate 8.

F. Air Quality and Climate Change

Air quality is defined by the concentration of pollutants related to human health. Concentrations of air pollutants are determined by the rate and location of pollutant emissions released by pollution sources and the atmosphere's ability to transport and dilute such emissions. Concentrations of air pollutants are determined by the rate and location of pollutant emissions released by pollution sources and the atmosphere's ability to transport and dilute such emissions.

Imperial County is located in the southeastern corner of California in a relatively flat desert valley surrounded by mountain ranges to the east and west. The State and Federal air quality regulations designated this region as the Salton Sea Air Basin (SSAB), which is under the jurisdiction of the Imperial County Air Pollution Control District (ICAPCD). The SSAB encompasses the entirety of Imperial County and the southeast portion of Riverside County and is generally an arid desert region, with a significant portion located below sea level. A semi-permanent high-pressure cell blocks mid-latitude storms and causes sunny skies most of the time. The SSAB contains relatively few major emissions sources, but may experience emissions from significant vehicular traffic,

particularly near the two international port of entries. Emissions sources consist of geothermal power generation, food processing, plaster manufacturing, and other light industrial facilities. Additionally, the continued decrease in surface elevation of the Salton Sea is expected to generate dust containing decades' worth of agricultural runoff from exposure of land currently underwater.

Air quality in the County is measured at air quality monitoring stations located in Calexico, El Centro, Niland, Westmorland, and Brawley.

1. State and Federal Air Quality Standards

The Federal Clean Air Act (CAA) of 1971 and the CCA Amendments (1977) established the national ambient air quality standards (NAAQS), which are promulgated by the EPA. The State of California has also adopted its own California ambient air quality standards (CAAQS), which are promulgated by the California Air Resources Board (CARB). Both the State of California and the Federal government have established health-based ambient air quality standards for six air pollutants. These pollutants include O3, CO, NO2, SO2, PM10 and subset PM2.5, and lead. In addition, the State has set standards for sulfates, hydrogen sulfide, vinyl chloride, and visibility-reducing particles. These standards are designed to protect the health and welfare of the populace with a reasonable margin of safety.

Specific geographic areas are classified as attainment, nonattainment, or unclassified areas for each pollutant, based on the comparison of measured data with Federal and State standards. The unclassified designation is used in an area that cannot be classified on the basis of available information as meeting or not meeting the standards. The Imperial County portion of the SSAB is currently designated as a nonattainment area for the 8-hour O3 NAAQS and CAAQS. The entire County is designated as a nonattainment area for the PM10 NAAQS and CAAQS. The central portion of Imperial County is designated as a nonattainment area for the PM2.5 NAAQS. The Imperial County portion of the SSAB is in attainment or unclassified with the NAAQS and CAAQS for the other applicable criteria pollutants. **Table 1** shows the Federal and State attainment status for the Imperial County portion of the SSAB.

TABLE 1
FEDERAL AND STATE AMBIENT AIR QUALITY ATTAINMENT STATUS FOR IMPERIAL COUNTY

Pollutant	Federal	State
8-Hour Ozone (O_3)	Nonattainment	Nonattainment
Coarse Particulate Matter (PM_{10})	Nonattainment	Nonattainment
Fine Particulate Matter ($PM_{2.5}$)	Nonattainment (central portion) Unclassified (remainder)	Attainment
Carbon Monoxide (CO)	Unclassified/Attainment	Attainment
Nitrogen Dioxide (NO_2)	Unclassified/Attainment	Attainment
Sulfur Dioxide (SO_2)	Attainment	Attainment
Lead	Unclassified/Attainment	Attainment
Sulfates	—	Attainment
Hydrogen Sulfide	—	Unclassified
Visibility Reducing Particles	—	Unclassified

The Environmental Protection Agency (EPA), under the provisions of the CAA, requires each State with regions that have not attained the NAAQS to prepare a State Implementation Plan (SIP),

detailing how these standards are to be met in each local area. The SIP is a legal agreement between each State and the Federal government to commit resources to improving air quality. It serves as the template for conducting regional and project-level air quality analysis. CARB is the lead agency for developing the SIP in California. Local air districts, such as the ICAPCD, prepare air quality attainment plans or air quality management plans and submit them to CARB for review, approval, and incorporation into the applicable SIP. The air districts develop the strategies stated in the SIPs for achieving air quality standards on a regional basis.

For 8-Hour Ozone (O3), the ICAPCD adopted the Final 2009 8-hour Ozone Modified Air Quality Management Plan in July 2010. The plan includes control measures which are an integral part of how the ICAPCD currently controls the ROG and NOX emissions within the O3 nonattainment areas. The overall strategy includes programs and control measures which represent the implementation of Reasonable Available Control Technology (40 CFR 51.912) and the assurance that stationary sources maintain a net decrease in emissions.

For Coarse Particulate Matter (PM10), the ICAPCD adopted the PM10 SIP in August 2009 that developed fugitive dust control measures (Regulation VIII). On April 23, 2013, the EPA approved Regulation VIII fugitive dust rules into the Imperial County portion of the California SIP.

For Fine Particulate Matter (PM2.5), the ICAPCD adopted the PM2.5 SIP in December 2014. This SIP concluded that the majority of the PM2.5 emissions resulted from transport in nearby Mexico. Specifically, the SIP demonstrates attainment of the 2006 PM2.5 NAAQS "but for" transport of international emissions from Mexicali, Mexico. In accordance with the CAA, the PM2.5 SIP satisfies the attainment demonstration requirement satisfying the provisions of the CAA.

The ICAPCD is working cooperatively with counterparts from Mexico to implement emissions reductions strategies and projects for air quality improvements at the border. The two countries strive to achieve these goals through local input from states, County governments, and citizens. Within the Mexicali and Imperial Valley area, the Air Quality Task Force (AQTF) has been organized to address those issues unique to the border region known as the Mexicali/Imperial air shed. The AQTF membership includes representatives from Federal, State, and local governments from both sides of the border, as well as representatives from academia, environmental organizations, and the general public. This group was created to promote regional efforts to improve the air quality monitoring network, emissions inventories, and air pollution transport modeling development, as well as the creation of programs and strategies to improve air quality.

2. Climate Change

According to the State of California Climate Change Center, temperatures in California will rise significantly during this century as a result of the greenhouse gas (GHG) emissions humans release into the atmosphere. Generally, research indicates that California should expect overall hotter and drier conditions, with a continued reduction in winter snow (with concurrent increases in winter rains), as well as increased average temperatures and accelerating sea-level rise.

In addition to changes in average temperatures, sea level, and precipitation patterns, the intensity of extreme weather events is also changing. Mean annual minimum temperatures are projected to substantially increase in Imperial County, as temperature change projections indicate mean annual, monthly median, and minimum and maximum temperature increases over 2°C. Projections also show a change in the distribution of precipitation and vegetation shift due to climate change, based on the capacity of species to migrate and keep up with geographic change.

Further State studies and assessments are expected to better understand the scope, timing, cost, and feasibility of various management options to address climate risks. Understanding these risks will allow the State to prioritize actions and investments to safeguard the people, economy, and natural resources from climate change impacts. In addition, these further studies will assist in determining how future climate change is expected to impact the air quality of Imperial County and how the ICAPCD can address those impacts.

G. Open Space and Recreation

Parks and recreation in Imperial County are enhanced by the natural resources of the Sonoran Desert, including the mountains, sandy hills, Colorado River, and Salton Sea. Because of the varied terrain throughout the County, abundant opportunities for recreation exist, such as hiking, boating, fishing, hunting, and off-highway activities. Many of these opportunities are located on land under Federal or State jurisdiction, but multiple smaller parks are located in the urban areas of the County.

Much of Imperial County is open space. Open space is considered any parcel or area of land or water that is essentially unimproved and devoted to conservation of natural resources, outdoor recreation, and protection of the public health and safety. The State and Federal governments manage large amounts of open space in Imperial County, the largest being the California Desert Conservation Area under Bureau of Land Management (BLM) jurisdiction. State and Federal protected areas, including a number of wilderness areas, are shown on **Figure 10**.

The Imperial County Planning and Development Services Department (ICPDS) operates five parks: Sunbeam Lake Park, Wiest Lake Park, Red Hill Marina Park, Ocotillo Community Park, and Palo Verde Park. These County parks offer a variety of passive and active recreation opportunities, including playground equipment, basketball courts, picnic tables, barbecue grills, campsites, walking trails, boating and fishing opportunities, and open space for passive recreation.

Imperial County hosts the El Centro Naval Air Facility, Imperial County Airport and other airports adjacent to open space areas. Countywide aircraft facilities are identified in the Airport Land Use Compatibility Plan and include land use compatibility and open space designations that protect people and property from potential aircraft accidents in the flight path.

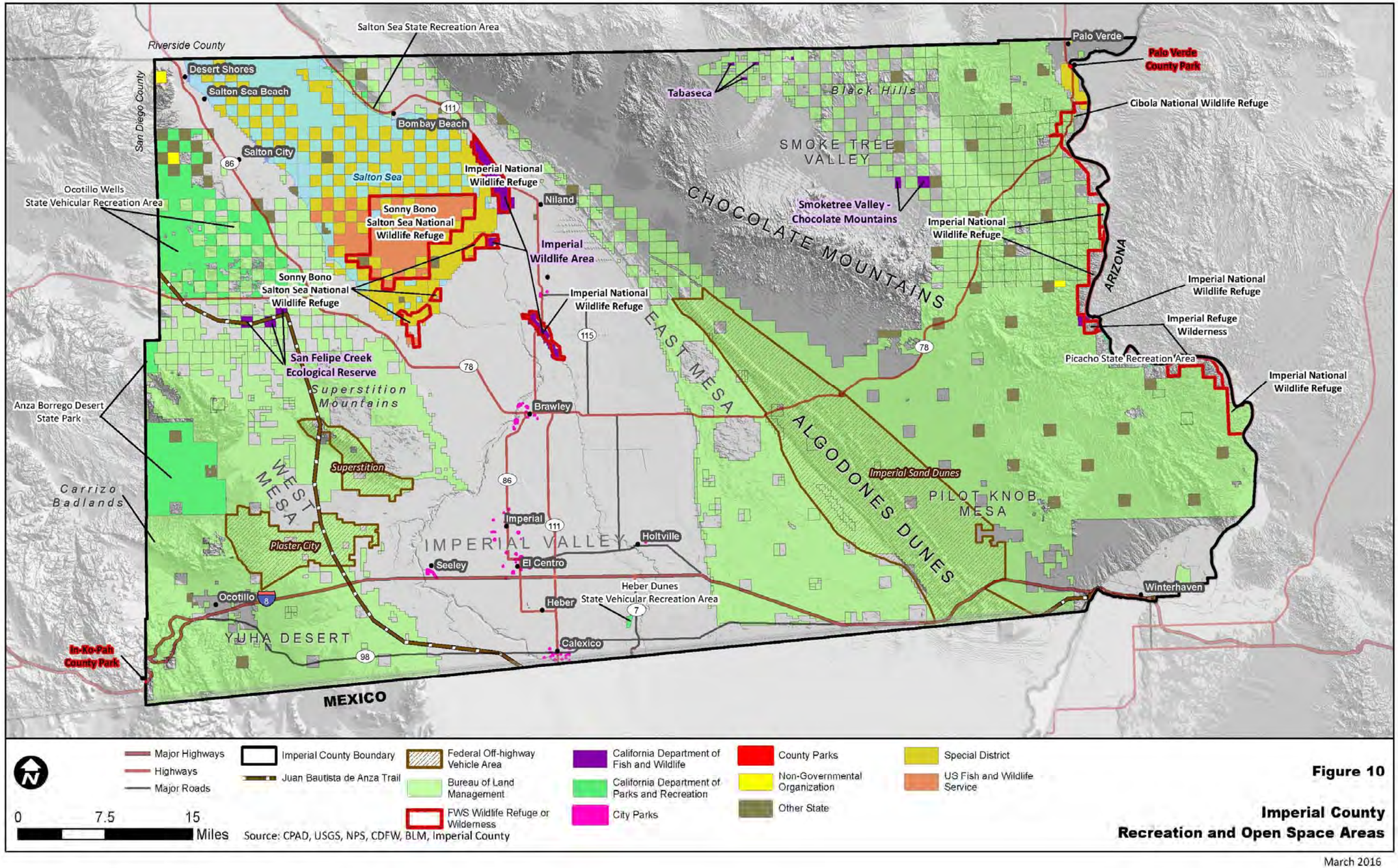

Figure 10

Imperial County
Recreation and Open Space Areas

March 2016

This page intentionally left blank.

III. GOALS AND OBJECTIVES

A. PREFACE

The Conservation and Open Space Element of the General Plan serves as the primary policy statement by the Board of Supervisors for implementing policies to conserve the natural environment of Imperial County. The County recognizes that the degradation of one natural resource will have a cumulative effect upon the total resource base, including water, vegetation, air, wildlife, soil, minerals, and cultural landscapes. This section of the Element presents Imperial County's Goals and Objectives relative to planning for the natural environment of the unincorporated areas of the County.

The Goals and Objectives, together with the Implementation Programs and Policies in Chapter IV, are the statement that shall provide direction for private development and industry as well as government actions and programs. Imperial County's Goals and Objectives are intended to serve as long-term principles and policy statements representing ideals which have been determined by the citizens as being desirable and deserving of community time and resources to achieve. These Goals and Objectives, therefore, are important guidelines for decision making relative to proposed projects and land use planning. It is recognized, however, that other social, economic, environmental, and legal considerations are involved in land use decisions and that these Goals and Objectives, and those of the other General Plan Elements, should be used as guidelines but not doctrines.

B. GOALS AND OBJECTIVES

Conservation of Environmental Resources for Future Generations

Goal 1: Environmental resources shall be conserved for future generations by minimizing environmental impacts in all land use decisions and educating the public on their value.

Objective 1.1: Encourage uses and activities that are compatible with the fragile desert environment and foster conservation.

Objective 1.2: Coordinate the acquisition, designation, and management of important natural and cultural resource areas in Imperial County with other governmental agencies as appropriate.

Objective 1.3: Develop standards to protect significant natural and cultural resource areas for the purpose of enhancing both the planning and decision-making process.

Objective 1.4: Ensure the conservation and management of the County's natural and cultural resources.

Objective 1.5: Provide opportunities for enjoyment of a quality natural experience to present and future generations.

Objective 1.6: Promote the conservation of ecological sites and preservation of cultural resource sites through scientific investigation and public education.

Conservation of Biological Resources

Goal 2: The County will integrate programmatic strategies for the conservation of critical habitats to manage their integrity, function, productivity, and long-term viability.

Objective 2.1: Designate critical habitats for Federally and State-listed species.

Objective 2.2: Develop management programs, including preservation of habitat for flat-tailed horned lizard, desert pupfish, and burrowing owl.

Objective 2.3: Support investigation of long-term climate change effects on biological resources.

Objective 2.4: Use the CEQA and NEPA process to identify, conserve and restore sensitive vegetation and wildlife resources.

Objective 2.5: Give conservation of sensitive species and habitat a high priority in County park acquisition and development programs.

Objective 2.6: Attempt to identify, reduce, and eliminate all forms of pollution; including air, noise, soil, and water.

Preservation of Cultural Resources

Goal 3: Preserve the spiritual and cultural heritage of the diverse communities of Imperial County.

Objective 3.1: Protect and preserve sites of archaeological, ecological, historical, and scientific value, and/or cultural significance.

Objective 3.2: Develop management strategies to preserve the memory of important historic periods, including Spanish, Mexican, and early American settlements of Imperial County.

Objective 3.3: Engage all local Native American Tribes in the protection of tribal cultural resources, including prehistoric trails and burial sites.

Conservation of Geological Resources

Goal 4: The County will identify and protect geologic, soil, aggregate, and mineral resources for extraction while minimizing the effect of mining on surrounding land uses and other environmental resources.

Objective 4.1: Require use of latest technologies for extraction of mineral and quarry/aggregate resources that protect the natural desert environment.

Objective 4.2: Require that mineral extraction and reclamation operations be performed in a way that is compatible with surrounding land uses and minimize adverse effects on the environment.

Objective 4.3: Safeguard the use and full development of all mineral deposits.

Objective 4.4: Regulate the development adjacent to or near all mineral deposits and geothermal operations due to the potential for land subsidence.

Objective 4.5: Preserve significant geological features such as rock outcroppings, the Algodones Dunes, Imperial Sand Dunes, Salton Buttes, and Shell Beds in Yuha Basin.

Conservation of Visual Resources

Goal 5: The aesthetic character of the region shall be protected and enhanced to provide a pleasing environment for residential, commercial, recreational, and tourist activity.

Objective 5.1: Encourage the conservation and enhancement of the natural beauty of the desert and mountain landscape.

Objective 5.2: Utilize the Code Enforcement process to eliminate visually dilapidated buildings that impact the visual character of rural communities.

Conservation of Water Resources

Goals 6: The County will conserve, protect, and enhance water resources in the County.

Objective 6.1: Ensure the use and protection of all the rivers, waterways, and groundwater sources in the County for use by future generations.

Objective 6.2: Ensure proper drainage and provide accommodation for storm runoff from urban and other developed areas in manners compatible with requirements to provide necessary agricultural drainage.

Objective 6.3: Protect and improve water quality and quantity for all water bodies in Imperial County.

Objective 6.4: Eliminate potential surface and groundwater pollution through regulations as well as educational programs.

Objective 6.5: Reclaim polluted water bodies, such as the New and Alamo Rivers.

Objective 6.6: Ensure protection of water bodies that are important for recreational fishing.

Objective 6.7: Prohibit the inappropriate siting of solid or hazardous waste facilities next to water bodies or over sources of potable groundwater or recharge basins. In association with the cleanup of the New River, all existing landfills in or near the river should eventually be closed.

Objective 6.8: Discourage the use of hazardous materials in areas of the County where significant water pollution could pose hazards to humans or biological resources.

Objective 6.9: Identify and protect watersheds and key recharge areas for the protection of water quality and groundwater.

Objective 6.10: Encourage water conservation and efficient water use among municipal and industrial water users, as well as reclamation and reuse of wastewater.

Objective 6.11: Coordinate with the appropriate agencies for the availability of water to meet future domestic, industrial/commercial and agricultural needs.

Protection of Air Quality and Addressing Climate Change

Goal 7: The County shall actively seek to improve the quality of air in the region.

Objective 7.1: Ensure that all project and facilities comply with current Federal, State, and local requirements for attainment of air quality objectives.

Objective 7.2: Develop management strategies to mitigate fugitive dust. Cooperate with all Federal, State and local agencies in the effort to attain air quality objectives.

Objective 7.3: Work cooperatively with the EPA and CARB in evaluating air quality monitoring in Imperial County.

Objective 7.4: Enforce and monitor environmental mitigation measures relating to air quality.

Objective 7.5: Coordinate efforts with Imperial County Transportation Commission (ICTC) and other appropriate agencies to reduce fugitive dust from unpaved streets.

Objective 7.6: Explore and assess strategies to reduce greenhouse gas emissions in the County.

Protection of Open Space and Recreational Opportunities

Goal 8: Open space shall be maintained to protect the aesthetic character of the region, protect natural resources, provide recreational opportunities, and minimize hazards to human activity.

Objective 8.1: Confine future urbanization within adopted Urban and Community areas.

Objective 8.2: Focus all new renewable energy development within adopted Renewable Energy Overlay Zones.

Objective 8.3: Recognize the regional significance of the development and conservation of recreational opportunities in Imperial County.

Objective 8.4: Provide a broad range of recreational facilities for all ages and economic groups emphasizing family-oriented opportunities.

Objective 8.5: Encourage the acquisition and development of additional County recreational facilities.

Objective 8.6: Recreational activities should be developed in such a manner as to minimize any significant environmental impact on humans and existing natural resources.

Objective 8.7: Encourage the development and improvement of recreational facilities in Imperial County.

Objective 8.8: Coordinate Federal, State, and County agencies for trail-oriented recreational uses.

Objective 8.9: Conserve desert lands, within the County's jurisdiction for wildlife protection, recreation, and aesthetic purposes.

Conservation and Restoration of Salton Sea

Goal 9: The County shall work towards comprehensive restoration of the Salton Sea in order to provide recreation, healthy habitat for wildlife, and economic revitalization in the region.

Objective 9.1: Develop programs in association with County, State, and Federal agencies and the Salton Sea Joint Powers Authority (JPA) to restore the Salton Sea.

Objective 9.2: Encourage renewable energy developments that include Salton Sea restoration components.

Objective 9.3: Coordinate with US Fish and Wildlife Service, California Department of Fish and Wildlife, and the Salton Sea JPA in developing programs to protect and restore migratory bird habitat, desert pup fish, and other sensitive or endangered species associated with the Salton Sea.

Objective 9.4: Develop educational programs to promote a greater understanding of the value and importance of the Salton Sea habitat management areas among County residents.

C. Relationship to Other Elements

Table 2 identifies the relationship between the Conservation and Open Space Element Goals and Objectives to other Elements of the Imperial County General Plan. The Issue Area identifies the broader goals of the Element and the "Xs" identify that related objectives are contained in the corresponding Elements.

TABLE 2
CONSERVATION AND OPEN SPACE ELEMENT POLICY MATRIX

Conservation and Open Space Issue Areas	General Plan Elements								
	Agricultural	Circulation/ Scenic Highways	Housing	Land Use	Noise	Parks/ Recreation	Renewable Energy/ Transmission	Seismic/ Public Safety	Water
Biological Resources				X			X		X
Cultural Resources				X			X		
Geologic Resources				X			X		
Mineral Resources				X			X		
Salton Sea Restoration	X			X			X		X
Visual Resources		X		X			X		
Water Resources	X			X		X	X	X	X
Air Quality and Climate Change		X		X			X		
Open Space and Recreation			X	X		X	X		

IV. IMPLEMENTATION PROGRAMS AND POLICIES

A. PREFACE

The primary mechanism to implement the Goals and Objectives of the Conservation and Open Space Element is to incorporate environmental concerns into land use planning. This occurs primarily through the discretionary permit process of subdivision map review, rezones, conditional use permits, specific plans, and general plan amendments. Accompanying all of these applications is an environmental review process to identify significant site resources and evaluate project impacts.

In addition, the process of updating the County's resource data base needs to be a continual process of information exchange with County, State, and Federal resource agencies. This includes the Bureau of Land Management, California Department of Fish and Wildlife, U.S. Fish and Wildlife Service, Imperial Irrigation District, Soil Conservation Service, State Department of Conservation, Regional Water Quality Control Board, Air Pollution Control District, and others.

B. POLICIES AND PROGRAMS

The following policies and programs describe activities which are intended to implement the Goals and Objectives that have been described in the previous section.

1. Biological Resource Conservation

Policy

Provide a framework for the conservation and enhancement of natural and created open space which provides wildlife habitat values.

Programs

- Identify Resource Areas (see Figures 1 through 3) to conserve and enhance native vegetation and wildlife. These areas include agency designated sensitive habitats with the US Fish & Wildlife, BLM Areas of Critical Environmental Concern (ACECs), and California Department of Fish & Wildlife. These designated lands are designed for the protection and perpetuation of rare, endangered, and threatened species and areas important for scientific study.

- Projects within or in the vicinity of a Resource Area should be designed to minimize adverse impacts on the biological resources it was created to protect.

- Accept donations of land which have high wildlife value. Where appropriate, Imperial County shall attempt to exchange donated lands of high wildlife value with other State, Federal, or other resource agencies equipped to protect and manage such lands for other lands more appropriate to County needs.

- Develop an environmental mitigation program that protects, and restores Salton Sea wildlife habitats as offsets to biological disturbances identified through the CEQA review process for development projects. The program would allow the County and/or Salton Sea JPA to restore habitat through financing mechanisms including land banks and/or direct financial contributions from the developers to mitigate their impacts.

- Conserve the native habitat of sensitive plants and animals through the dedication of open space easements, or other means that will ensure their long-term protection and survival. Such easements may preclude the erecting of any structures (temporary or permanent), vegetation removal, or any other activities. These dedicated open space easements would also serve to reduce potential indirect impacts to sensitive biological resources that may result from human activities associated with future developments.

- Areas designated for biological open space conservation shall include buffers, which provide important breeding and foraging habitats for native and migratory birds and animals. Such buffers shall serve to separate future development from adjacent native habitat areas to ensure the perpetual regeneration of these habitats.

- Protect riparian habitat and other types of wetlands from loss or modification by dedicating open space easements with adequate buffer zones, and by other means to avoid impacts from adjacent land uses. Road crossings or other disturbances of riparian habitat should be minimized and only allowed when alternatives have been considered and determined infeasible.

- Rock outcrops which serve as significant boulder habitat for sensitive biological resources should be considered within open space easements.

- Preserve existing California fan palms in natural settings and other individual specimen trees which contribute to the community character and provide wildlife habitat.

- Preserve and encourage the open space designation of wildlife corridors which are essential to the long-term viability of wildlife populations.

- Integrate open space dedications in private developments with surrounding uses to maximize a functional open space/recreation and wildlife management system.

Policy

Landscaping should be required in all developments to prevent erosion on graded sites and, if the area is contiguous with undisturbed wildlife habitat, the plan should include revegetation with native plant species.

Programs

- Revegetation plans shall be submitted and approved by the Imperial County Planning and Development Services Department and relevant resource agencies for the mitigation of sensitive habitat lost, and for disturbed areas created by roads or installation of facilities adjacent to native habitat. Such plans shall mitigate for the loss of sensitive habitat and habitat value based on a ratio consistent with accepted policy, as recommended by the State and Federal resource agencies. These specifications shall include, at a minimum, the following:

    - Locations of ecologically appropriate planting areas.

    - Site preparation/remedial grading.

    - Amounts, sizes, and locations of appropriate over-story tree species to be planted.

    - Hydroseed/container stock planting mixes and locations for appropriate understory shrub species and groundcovers.

    - Timing of planting (for example, most plantings should be conducted during the rainy season).

    - Protective measures during and after plant installation, such as temporary chain-link fencing to keep out construction equipment/personnel; caging to avoid potential herbivory (animal browsing); and permanent wood-rail fencing or signage to deter human intrusions. This would also reduce potential impacts caused by future active uses, or "edge effects", from adjacent residential areas.

    - Irrigation schedule which specifies timing, frequency, length, and method of watering to ensure successful plant establishment. For example, temporary irrigation through the use of drip emitters should be installed around each tree to encourage deep tap rooting. Irrigation may only be necessary for the first one or two years, but could be extended throughout the monitoring period as determined necessary by the consulting biologist.

- The proposed habitat restoration sites shall be monitored for an appropriate period of time to ensure long-term plant survivorship. Monitoring shall be conducted by a qualified biologist proficient at horticultural and botanical sampling methods. The biological monitor shall be present at the time of plant installation to ensure correct implementation. The monitoring program shall clearly specify success criteria (e.g., percent vegetative cover for shrub species, percent canopy cover for tree species, etc.) to be evaluated by the biological monitor on a quarterly basis. Annual reports detailing the progress of the revegetation effort in attaining these goals shall be submitted to the Imperial County Planning and Development Services Department and relevant resource agencies.

- A maintenance program shall be implemented for the length of the monitoring period. Primary goals of the maintenance program shall include staking, weed control and replacement of planted material that is diseased or has died. If the proposed restoration sites are not meeting stated goals of the Plan, supplemental remedial measures, such as additional weed control or replacement plantings, shall be recommended during the monitoring and maintenance period.

- When appropriate, a bond or other security shall be provided for all required revegetation plans, which would be released by the County only after: 1) the consulting biologist has concluded that all specified success criteria have been met; and, 2) the County and other relevant permitting agencies have approved the successful completion of the plan.

- Clearing of shrubs, vines, and other native vegetation for purposes of fire control shall be coordinated with the local fire district, particularly in fire-prone areas. Where clearing is necessary, high-fuel plants shall be replaced with native, low-fuel plants. Where feasible or necessary for habitat protection, fire buffer clearing shall be done by hand so as to minimize disturbance to understory species. A list of important understory groundcover, shrubs, vines, ferns, and other vegetation shall be compiled by a qualified biologist, and included in all required landscape plans prior to final approval of individual projects.

2. Cultural Resources Conservation

Policy

Identify and document significant historic and prehistoric resources, and provide for the preservation of representative and worthy examples; and recognize the value of historic and prehistoric resources, and assess current and proposed land uses for impacts upon these resources.

Programs

- The County will use the CEQA process to conserve cultural resources and conform to Senate Bill 18 "Consultation with Tribal Governments" and Assembly Bill 52 "Consultation with Tribal Governments". Public awareness of cultural heritage will be stressed. All information and artifacts recovered in this process will be stored in an appropriate institution and made available for public exhibit and scientific review.

- Encourage the use of open space easements in the conservation of high value cultural resources.

- Consider measures which would provide incentives to report archeological discoveries immediately to the Imperial Valley Desert Museum.

- Coordinate with appropriate Federal, State, local and tribal agencies to provide regular updates to the "Sensitivity Map for Cultural Resources" (Figure 6).

- Discourage vandalism of cultural resources and excavation by persons other than qualified archaeologists. The County shall study the feasibility of implementing policies and enacting ordinances toward the protection of cultural resources such as can be found in California Penal Code, Title 14, Point 1, Section 622-1/2. The County should maintain confidentiality of specific resource locations to prevent vandalism and desecration of sensitive cultural resources.

3. Mineral Resources Conservation

Policy

Control the extraction of mineral resources in order to assure minimal disturbance to the environment, conservation of significant mineral deposits, and to protect mining operations from encroachment by incompatible land use.

Programs

- The County shall require all surface mine operators to submit surface mining and reclamation plans prior to beginning mining operations. Surface mining includes surface work incident to an underground mine. Such plans shall be processed by the Planning and Development Services Department and shall require the approval of the Planning Commission. Following the approval of those plans, the issuance of all other required regulatory permits, and the commencement of surface mining operations, the Planning and Development Services Department shall inspect each surface mining operation at least once a year, for the life of the operation to assure compliance with the mining plans. The County should coordinate with the Department of Conservation's Office of Mine Reclamation (OMR) and the State Mining and Geology Board (SMGB) to ensure proper administration of the Surface Mining and Reclamation Act of 1975 (SMARA).

- The County shall protect known mineral deposits and mining operations from the encroachment of incompatible urban land uses. All protected areas shall be reevaluated in light of future State reports identifying areas of regional and statewide mineral significance. The Existing Mineral Resources Map (Figure 8) for Imperial County provides the details and locations of mining activities.

4. Visual Resources Conservation

Policy

Develop planning programs to conserve and protect visual resources and scenic views from incompatible development and land uses.

Programs

- Through the development review and CEQA process, encourage designs that are compatible with the natural landscape and with recognized historical character, and discourage designs that are clearly out of place within rural areas.

- Through the development review and CEQA process, encourage designs that emphasize native vegetation and conform grading to existing natural forms. Encourage abundant native landscaping that screens buildings and parking lots and blends development with the natural landscape.

- Amend the Land Use Ordinance, and/or Community Area Plans, as applicable, to enact or revise ordinance standards to protect scenic resources. Adoption and implementation of scenic protection standards shall not interfere with agricultural uses on private lands. Standards for land use permits, including industrial and processing uses, and subdivisions should include visual assessments by qualified experts; visually effective setbacks near highways and roadways; siting in unobtrusive locations; and standards for height, architectural design, landscaping, lighting, and signs. The standards should emphasize avoiding visual impacts through alternative locations and designs where feasible. Establish consistent Countywide Viewshed Protection Standards.

Policy

Develop a Scenic Highway program that identifies scenic highways for future state-designation and visual resource preservation.

Program

- Coordinate with Caltrans and the County to develop a scenic corridor program that establishes specific guidelines for identifying scenic corridors and analysis for new projects in the vicinity. At a minimum, the guidelines should:

    a) specify the features that need to be protected through a site-specific analysis of each Viewshed

    b) state why it is important to protect those features

    c) where applicable, establish specific mapped boundaries that define the minimum area necessary to protect the identified features

    d) identify the type of inappropriate development that should be regulated

    e) involve area property owners

    f) be accompanied by an economic assessment

- Coordinate with Caltrans to identify the candidate roads and highways for future scenic highway designation. The potential candidates considered eligible for designation include:

    - Interstate 8

    - State Route 78

- State Route 111
- County Highway S-22

- Work with property owners to preserve prominent ridgelines and scenic backdrops through open space agreements, contracts, or other appropriate instruments along designated scenic corridors.

5. Protection of Air Quality and Addressing Climate Change

Policy

Reduce PM10 and PM2.5 emissions from unpaved roads, agricultural fields, and exposed Salton Sea lakebed.

Programs

- Implement all ICAPCD particulate matter (PM) emission controls including the Final PM10 2009 State Implementation Plan and the 2013 State Implementation Plan for the 2006 24-Hour PM2.5 Moderate Nonattainment Area.

- Support programs, policies, and efforts to restore the Salton Sea and reduce fugitive dust emissions from exposed playa.

Policy

Work cooperatively with ICTC and other appropriate agencies to reduce vehicle miles traveled countywide in order to improve air quality and reduce greenhouse gas emissions.

Programs

- Direct most new residential development away from rural and agricultural areas and concentrate it in higher density residential areas located near major transportation corridors, transit routes, community centers, and town/urban centers where resources and services are available.

- Cooperate in a countywide VMT Reduction Program in partnership with the ICAPCD, SCAG, ICTC, and Imperial Valley Transit (IVT).

Policy

Promote alternative transportation programs, policies, and development in order to reduce vehicle miles traveled and address air quality and greenhouse gas emissions.

Programs

- Review development applications to identify opportunities for connecting land uses to non-motorized routes, incorporating safe road crossings at major intersections, and including secure, weatherproof bicycle parking and storage facilities. Ensure long-term maintenance of all such facilities.

- Coordinate with SCAG, ICTC, IVT, and local cities to identify and map existing and future bus lines (routes) and transit corridors for inclusion in the Land Use and Circulation Element.

- Adopt a "Complete Streets" Ordinance to ensure that the County's streets and roads are designed and operated as a balanced, multimodal transportation network that enables safe access for all users. "All users" includes pedestrians, bicyclists, persons with disabilities, movers of commercial goods, transit vehicles, and users, and motorists of all ages and abilities.

6. Open Space and Recreation Conservation

Policy

Identification of lands appropriate for open space conservation shall be included in the development review process. The application of regulatory controls must be non-confiscatory, non-arbitrary, and reasonable. It is not the intent of any of these measures to deny any landowners the reasonable use of his land, or be considered a "taking" under the law. The following are examples of various regulatory techniques:

Programs

- Ensure consistency with the Parks and Recreation Element and pertinent factors such as existing park conditions, funding sources, and anticipated recreational needs.

- Ensure consistency and compliance with the Quimby Act which allows the County to impose fees in order to ensure provision of 3 acres of park area per 1,000 residents. Assembly Bill 1359 allows fees collected from new housing development to be used on parks outside of the housing development's neighborhood.

- Ensure compliance with Imperial County Land Use Ordinance (Title 9) Division 29: Parks and Recreation Regulations to ensure the provision of specific rules and regulations for County parks and recreational areas in order to promote public health, safety, and general public welfare.

- Agricultural lands shall require a minimum parcel size of 40 acres for the conservation and protection of productive agricultural lands.

- Continue use of the "S" Open Space Zone for all unincorporated areas of the County not included in a precise zoning map.

- There are some lands in public ownership at the present time. The value and potential uses of these lands should be evaluated, and the possibility of exchanges for desirable open space or recreation lands explored.

- The acquisition of development rights can also be used to permit the retention of the open character of certain land uses, notably agriculture. Incentive for owners to sell these rights would result from a considerably lower tax assessment in view of the absence of development potential.

Policy

The County shall participate in conducting detailed investigations into the significance, location, extent, and condition of natural resources in the County.

Programs

- Encourage State and Federal acquisition or management of areas or sites determined by the County and other agencies to possess important natural resource values, including small but significant landscape features and scientific sites.

- Participate in the process of site and area evaluation and analysis after an area is determined to possess natural resource value.

- Encourage acquisition of unique archaeological or scientific sites by State and Federal Agencies or non-profit organizations interested in preserving our cultural heritage.

- Allow only compatible land uses and consistent zoning adjacent to protected areas.

- Zone areas of natural resource value to conserve and protect their intrinsic values when applicable.

- Preserve unique sites and areas by controlling direct public access.

- Notify any agency responsible for protecting plant and wildlife before approving a project which would impact a rare, sensitive, or unique plant or wildlife habitat.

Policy

The County shall discourage urban development on State-designated important agricultural lands including Prime Farmland, Farmland of Statewide Importance, Unique Farmland, and Farmland of Local Importance.

Programs

- Recognize the incompatibility of small parcels to agricultural uses by adopting and enforcing large minimum acreage requirements in agricultural zones (excluding the A-1 Zone).

- Relate minimum acreage requirements in each zone to soil characteristics, climate, water availability, crop types, existing land use ownership patterns, and proximity to urban development.

- Encourage development of agriculturally related industries, such as packing and processing, on marginally productive lands.

- Continue a fee or assessment on new development which converts land presently in agricultural use. The revenue could be used to purchase development rights or fee title to other land still in production or open space, as deemed necessary.

Policy

The County shall take a pro-active role in working with local, State, and Federal agencies to maintain and develop lands for outdoor recreation.

Programs

- Encourage State and Federal Agencies to develop and operate recreational facilities which are determined by the County to possess more than local significance.
- Provide County input into State and Federal recreation and wilderness areas so that the natural values of the area are conserved.
- Support controlled development of recreation facilities in primitive or wilderness areas so that the natural values of the area are conserved.
- Off-road vehicle (ORV) use is recognized as a popular recreational pursuit in the Imperial Valley. Areas which are not environmentally sensitive should be identified for this purpose.
- Encourage the recreational use of lands located in hazardous areas such as flood plains.
- Establish adequate development standards for private recreation facilities to assure the conservation of natural and scenic values.
- Encourage the identification and designation of historic buildings, landmarks, and sites within the County.
- Encourage the acquisition of historic and cultural sites by public agencies or nonprofit organizations interested in their preservation.
- With the Imperial Irrigation District, explore the possibility of utilizing and improving certain portions of the canal system for picnic and fishing sites.
- Encourage the use of unobtrusive materials, structures, and color in power line transmission corridors. Vegetative screening is encouraged wherever possible.

Policy

The County shall establish a program to identify open space necessary for the protection of public health and safety, such as floodplains, geologic risk areas, and airport flight zones, and maintain these areas in open space, agriculture, or other appropriate low intensity uses.

Programs

- Floodway and floodplain boundaries shall be identified on County zoning maps when required studies have been completed.
- Structural development normally shall be prohibited in the designated floodways. Only structures which comply with specific development standards (Flood Drainage Prevention Regulation, Division 6) should be permitted in the floodplain.
- Limit use of floodplains to natural wildlife habitat, non-structural recreational use, and agricultural production.

- Some encroachment into floodplain areas may be permitted with proper hydrologic design, review by the Department of Public Works and the floodplain administrator to assure that no public safety hazard is created, and a determination made that no significant impact to wildlife is created.

- Identify areas of known seismic activity and delineate on County zoning maps general areas in which development should be restricted.

- Control structural development upon or in the vicinity of an active fault.

- Require detailed engineering or soil studies on a case-by-case basis for development proposals located in an area characterized by soils of limited structural capabilities.

- Control development in areas of soil with properties which exhibit problems of erosion, limited bearing capacity, subsidence, shrink-swell, or slippage.

- Adopt General Plan designations and appropriate zoning to control residential uses in the aircraft flight zones and in areas which may be subjected to severe noise levels.

- Coordinate the review and consistency of projects near airports with the Airport Land Use Commission.

Policy

The County will establish a policy to clean up the Salton Sea and the rivers of Imperial County, specifically the New River and the Alamo River, in order to promote water recreation activities, habitat conservation, water quality, and other beneficial uses.

Programs

- The County of Imperial will work with Mexico to establish clean up procedures for the New and Alamo Rivers.

- Landfills located in or near the New River should eventually be closed as part of the New River cleanup program.

- The County will coordinate with local, State and Federal agencies to implement Salton Sea restoration efforts that include the Salton Sea Ecosystem Restoration Program and Salton Sea Restoration and Renewable Energy Initiative.

- Develop an environmental mitigation program that protects and restores Salton Sea wildlife habitats as offsets to water quality and biological disturbances identified through the CEQA preview process for development projects. The program would allow the County and/or Salton Sea JPA to restore habitat through financing mechanisms including land banks and/or direct financial contributions from the developers to mitigate their impacts.