

## 3.0 ENVIRONMENTAL SETTING

### 3.1 PHYSICAL CHARACTERISTICS OF THE SAN DIEGO REGION

Located in the southwest corner of the United States, the San Diego region comprises approximately 4,200 square miles and three general physiographic subregions: southern California coast, southern California mountains and valleys, and Colorado desert (McNab et al. 2005). To the north, the region is bordered by Orange and Riverside counties, although largely separated from Orange County by Camp Pendleton. To the south of the region is the U.S. border with Mexico. The Pacific Ocean forms a natural border to the west, and the region shares a border with Imperial County to the east.

The southern California coast subregion ranges in elevation from sea level to approximately 2,900 feet above mean sea level (AMSL). Although much of the coastal plain has been developed for commercial, industrial, recreational, and residential uses, the coastal plain also contains state parks, beaches, wetlands, and ecological reserves. Marine terraces step up the coastal plain west to east toward the inland foothills. The southern California coast subregion also contains the foothills and mesas with river valleys and narrow canyons. Several rivers run from the mountain area and through the southern California coast subregion, flowing into intermittent drainages or the Pacific Ocean. The most intensive urban development, including population, housing, and employment within incorporated and unincorporated communities, is found in the southern California coast subregion where topography and mild coastal climatic conditions are favorable.

Elevations in the southern California mountains and valleys subregion range from 100 to 6,500 feet AMSL. The mountains are generally steep and covered with conifer and broadleaf trees, granitic boulders, meadows, and chaparral vegetation. The eastern portion of the San Diego region is the Colorado desert subregion. Elevations range from sea level to 3,400 feet AMSL and the terrain includes mountains, alluvial fans, and desert floor. The mountain and desert subregions are sparsely populated in scattered towns as part of the unincorporated area of San Diego County. Much of the Colorado desert subregion is part of the Anza-Borrego State Park, the largest state park in California.

The climate of the San Diego region varies by location. Temperatures in the region are typically moderate on the coast, with an average high temperature of 69.9 degrees Fahrenheit (°F) and an average low temperature of 56.5°F. Average monthly temperatures rarely exceed 75°F. Average annual precipitation on the coast is 10.13 inches (WRCC 2014). In contrast, the average high temperature of the unincorporated town of Borrego Springs in the desert subregion is 88.3°F, and the average low is 63.6°F. Average monthly temperatures in the desert subregion typically exceed 100°F in summer months, which are very dry and see little precipitation. Average annual precipitation in the desert subregion is 5.32 inches (U.S. Climate Data 2014).

### 3.2 RARE AND UNIQUE ENVIRONMENTAL RESOURCES

Due to its diverse topography, geological conditions, and moderate climate, the San Diego region contains several rare and unique ecological and biological resources. The region encompasses a variety of habitats such as coastal sage scrub, chaparral, grassland, riparian, woodlands, forest, and desert. Several habitats and species in the region are considered sensitive by state and federal agencies, local jurisdictions, and conservation organizations. In fact, the San Diego region is considered a biological “hot spot” for biodiversity and species endangerments, as many unique and endangered species are found only in this region.

Along the coast, the Torrey Pines State Natural Reserve is home to the Torrey pine, the rarest pine in North America. Coastal sage scrub is another unique vegetation community. An important habitat for many species, coastal sage scrub is found from the coast to the mountain regions. As a wetland, the riparian vegetation community (scrub, woodland, and forest) found in the region is one of the most sensitive habitats in California. The San Diego Bay is another important natural resource in the region.

### **3.3 EXISTING LAND USE AND DEVELOPMENT PATTERNS**

This section describes existing land use and development patterns as of 2012, the year in which the Notice of Preparation was published. Urban development is primarily within the western third of the region. Development concentrations are mostly centered along the coast with areas of urbanization branching eastward. This land use pattern is shown in Figure 4.11-1. More than 50 percent of the total land area in the region is not available for urban development, including public lands, dedicated parks and open space, lands constrained for environmental reasons, and military use. Of the 2,726,964 total acres in San Diego County, over half are currently developed, and 526,582 acres are vacant. These existing land uses are listed in Table 4.11-1 in Section 4.11, Land Use.

Many incorporated cities, both large and small in size and population, are located along the coast and tend to have fairly high density relative to other portions of the region. Historically, development has centered along the coastal areas due to desirability of the location, access to infrastructure and transportation options, and access to employment and commercial centers, among other factors. As shown in Figure 4.11-1, land uses in the western portion of the region generally include residential development, commercial and office use, industrial uses, public and transportation facilities, and interspersed areas of parks and open space. Many of the region's military facilities are also in coastal proximity.

The cities and portions of the unincorporated county that are situated in more inland and eastern locations tend to have lower-density development and are typically located along major roadways. Historically, many inland locations have focused on maintaining more rural and nonurban characteristics. Land uses in the eastern portion of the region include some centers of urban development, typically along transportation corridors, including SR 78, SR 79, and SR 94 with rural, agricultural, commercial, and industrial uses. However, the majority of the land remains as undeveloped and open space parks with some agricultural lands throughout. Throughout the region, approximately 424,273 acres of land are vacant but planned for development. Most vacant land planned for development is planned for single-family residential uses. In addition to the available development acreage, approximately 1,455,691 acres of land throughout the region are constrained and not available for development due to preservation or protection requirements, physical limitations such as steep slopes, or other development restrictions.

### **3.4 EXISTING TRANSPORTATION NETWORK**

This section describes the existing transportation network as of 2012, the year in which the Notice of Preparation was published. The existing transportation network consists of freeways, highways, managed lanes, a toll road, regional arterials, local streets and roads, light rail systems, heavy rail, rapid bus service, local bus service, bikeways, commercial and general aviation facilities, seaport facilities, and ports of entry at the United States/Mexico border (Figures 4.15-1 through 4.15-3). These facilities serve the region's 18 cities and the County's unincorporated areas, as well as interregional and international commuting.

The largest proportion of major transportation facilities is located in the western third of the region to best serve the largest and fastest growing population areas. This includes the following major interstate highways and state highway routes:

- Interstate 5 (I-5)
- Interstate 8 (I-8)
- Interstate 15 (I-15)
- Interstate 805 (I-805)
- State Route 15 (SR 15)
- State Route 52 (SR 52)
- State Route 54 (SR 54)
- State Route 56 (SR 56)
- State Route 67 (SR 67)
- State Route 75 (SR 75)
- State Route 76 (SR 76)
- State Route 78 (SR 78)
- State Route 79 (SR 79)
- State Route 94 (SR 94)
- State Route 125 (SR 125)
- State Route 163 (SR 163)
- State Route 188 (SR 188)
- State Route 282 (SR 282)
- State Route 905 (SR 905)

San Diego Metropolitan Transit System operates the San Diego Trolley. The existing San Diego Trolley network is comprised of electrified light rail vehicles operating on the Blue, Orange, and Green Lines. The Blue Line operates between America Plaza in Downtown San Diego and San Ysidro at the international border with Mexico via National City and Chula Vista. The Orange Line also terminates at America Plaza, with service extending east to El Cajon via southeastern San Diego, Lemon Grove and La Mesa. The Green Line operates from 12th Street and Imperial Avenue in Downtown San Diego north to Old Town along the bayside, then east to Santee via Mission Valley and San Diego State University.

In North County, NCTD operates the SPRINTER light rail system that operates diesel-powered light rail vehicles along a 22-mile east-west route serving 15 stations connecting Oceanside, Vista, San Marcos, and Escondido generally along SR 78. NCTD also operates the COASTER commuter rail service along the San Diego region's portion of the Los Angeles – San Diego, San Luis Obispo (LOSSAN) rail corridor from Oceanside to Downtown San Diego.

Amtrak operates the intercity Pacific Surfliner on the LOSSAN corridor connecting San Diego to the rest of the Southern California and nationwide rail system. Metrolink, a regional commuter and passenger train system that operates in Los Angeles, Orange, Riverside San Bernardino, and Ventura counties, connects with the COASTER and SPRINTER systems via service to the Oceanside Transit Center. There also are three rail freight operators, the Burlington Northern and Santa Fe (BNSF), Pacific Sun Railroad, and the San Diego and Imperial Valley Railroad (SDIV).

Commuter and local bus service is provided throughout the region, including high-volume service to the North County, central, and south bay/border areas. Regional corridor bikeways are primarily aligned in conjunction with major transportation corridors and are supported by an extensive feeder network and local streets.

The movement of goods in the San Diego region involves intermodal systems of air cargo, border crossings, maritime, pipeline, rail, and roadways/truckways. Situated between major production, trade, and population centers, the San Diego region possesses a wide array of transportation and infrastructure assets. The existing transportation system includes interstate highways and state highways, a Class I railroad, a short line railroad, airport cargo systems, the Port of San Diego, and three international border crossings: San Ysidro, Otay Mesa, and Tecate.

Ocean cargo and cruise ship facilities are located on San Diego Bay, providing facilities necessary for the transfer of goods to and from the region via cargo vessels and for the cruise industry. Maritime commerce is carried out at two marine terminals located on San Diego Bay: the 10th Avenue Marine Terminal in the City of San Diego and the National City Marine Terminal at 24th Street. Ferry service operates between Downtown San Diego and Coronado.

The San Diego region is served by three commercial airports: San Diego International Airport (SDIA), McClellan-Palomar Airport, and Tijuana International Airport. These airports are part of the San Diego County Airport System of 12 public use airports in the San Diego region, along with Tijuana International. SDIA, McClellan-Palomar, and Tijuana International accommodate commercial, general aviation, and corporate services. Airports accommodating only general aviation and corporate services are Brown Field Municipal, Gillespie Field, Montgomery Field, and Ramona. The remaining airports accommodate general aviation only. In general, the San Diego County Regional Airport Authority (SDCRAA) is the government entity with jurisdiction over airport planning. In addition, SDCRAA operates SDIA. SANDAG and SDCRAA work together to address long-term ground access improvements to SDIA.

The existing bicycle network in the San Diego region consists of a combination of standard bicycle facilities and regional corridors, including about 159 miles of Class I bike paths, 890 miles of Class II bike lanes, 244 miles of Class III bike routes, and 47 miles of freeway shoulder (SANDAG 2010). In addition, the California Coastal Trail (CCT) is made up of a series of trails stretching 1,300 miles up and down the California coastline, 60 miles of which are within the San Diego region spanning from the Orange County boundary to downtown San Diego.

Chapter 4 of this EIR provides additional, more specific information relating to the existing environmental setting in the San Diego region pertaining to aesthetics and visual resources; agriculture and forest resources; air quality; biological resources; cultural and paleontological resources; energy; geology, soils, and mineral resources; greenhouse gas emissions; hazards and hazardous materials; hydrology and water quality; land use; noise and vibration; population and housing; public services and utilities; transportation; and water supply.

### **3.5 PLAN CONSISTENCY**

Land use authority is vested in eighteen incorporated cities and the unincorporated County. Consistency of the proposed Plan with these agencies' land use plans is discussed in Section 4.11 Land Use. Consistency of the proposed Plan with applicable regional plans prepared for specific resources is discussed in Section 4 subsections that analyze impacts on those specific resources.