

CHAPTER 4.0

ENVIRONMENTAL SETTING

The City of Orange is located in north-central Orange County, approximately 12 miles northeast of the Pacific Ocean and 32 miles southeast of Los Angeles.

The planning area encompasses approximately 23,800 acres, including about 22,400 acres within the City's corporate limits and 1,400 acres of unincorporated land within the sphere of influence. An additional 15,800 acres of Orange's remaining sphere of influence are located east of the City and outside the planning area.

Orange shares its boundaries with Anaheim to the north and west, Garden Grove to the west, Santa Ana to the west and south, and Tustin to the southeast. To the east of Orange is unincorporated Orange County. The City of Villa Park is completely contained within the borders of Orange.

Orange is located near six major freeways that connect the City to other locations in Orange, Los Angeles, and Riverside counties. Interstate and regional access to the City is provided predominantly by I-5 (Santa Ana Freeway). In addition, connections to the City from northern Orange County, and San Diego, Los Angeles, Riverside, and San Bernardino counties are provided by SR-57 (Orange Freeway), SR-55 (Costa Mesa Freeway), and SR-22 (Garden Grove Freeway). SR-91 (Riverside Freeway) passes just outside the northern edge of the planning area. SR-241 (Eastern Transportation Corridor) is a toll facility that directly serves the eastern portions of the City.

The planning area is characterized by generally flat or gently sloping topography. An alluvial plain underlies the central and western portions of the planning area, while a series of low hills (foothills of the Santa Ana Mountains) is found in the eastern portion of the planning area. Generally, the alluvial plain is underlain by many thousands of feet of fluvial and floodplain sediments. The low hills are underlain by bedrock. Orange is vulnerable to ground shaking caused by seismic events along large regional faults in the area, in addition to two faults that traverse the planning area. Portions of the planning area are susceptible to liquefaction and landslide potential. Wildland fire hazard areas are located generally in the eastern portion of the planning area.

Orange is located within the South Coast Air Basin (SCAB), which is composed of all of Los Angeles, Orange, and Riverside counties as well as the western two-thirds of San Bernardino County. In terms of overall air quality, the SCAB is considered to have some of the worst pollution in the United States, and the SCAB is considered a nonattainment area due to exceedances of the California Ambient Air Quality Standards (CAAQS) for ozone and inhalable particulate matter (PM₁₀). The South Coast Air Quality Management District (SCAQMD) is the regulatory agency responsible for ensuring that the SCAB meets or has plans to meet both state and federal air quality standards.

The majority of the planning area is characterized by urbanized areas that generally have low habitat value for wildlife. However, a significant amount of the eastern portion of the planning area is currently undeveloped, including the Irvine Ranch Land Reserve (IRLR) and the Nature Reserve of Orange County established by the Central/Coastal Natural Communities Conservation Plan (NCCP). These areas contain valuable ecological and biological resources. Important vegetation communities located in these areas include scrub, woodlands, cliff and rock, grassland, chaparral, and riparian. These communities support numerous sensitive mammal, bird, fish, amphibian, and reptile species. Orange also contains nonreserve areas of the NCCP such as lands identified as “special linkage areas” and “existing use areas” (generally located east of SR-55) which also contain valuable vegetation communities and species.

Very little agricultural land exists within the City of Orange, as the majority of the planning area is urbanized. However, a few small, scattered parcels throughout the City remain designated as agricultural lands and are identified by the California Department of Conservation as Unique Farmland and Farmland of Statewide Importance. None of these designated farmland areas are actively cultivated.

The Santa Ana River serves as the City’s western boundary. Other water bodies in the planning area include Santiago Creek, Handy Creek, Irvine Lake, Villa Park Reservoir, and Peters Canyon Reservoir. The City’s water supply comes from several sources, including water from northern California via the State Water Project, the Colorado River, local groundwater basins, local watersheds, reclamation, and water reuse projects. The City obtains approximately 75 percent of its water from City-owned wells and purchases approximately 25 percent from the Metropolitan Water District and the Municipal Water District of Orange County. The City is also served by the East Orange County Water District, Golden State Water Company, Irvine Ranch Water District, and Serrano Water District.

The primary noise source within the planning area is vehicular traffic on the local arterial system, highways, and freeways that surround the City. Other sources of noise include passenger and freight rail operations, aircraft overflights, light-industrial facilities, and retail centers, as well as schools and parks.

As noted above, Orange is largely urbanized. As of 2004, there were approximately 43,372 dwelling units in the City, 35 million square feet of nonresidential development, and a population of about 136,699.

Land use distribution within the City as illustrated in the existing General Plan is shown in Table 4-1. The density, intensity, and policy assumptions in the existing General Plan determined that, at buildout of the existing General Plan, the planning area would contain an estimated 53,000 dwelling units and about 58 million square feet of nonresidential development. Table 4-1 indicates that land area within the municipal boundaries of the City of Orange is 24,072 acres; however, Chapter 3.0, Project Description, of this EIR indicates that the municipal land area is 22,386 acres. This difference is due to increased accuracy of the mapping software used to calculate the area. Table 4-2 shows existing development in the planning area.

**Table 4-1
Existing General Plan Distribution of Land Use City of Orange Planning Area**

Existing GP Land Use Designations	Acres	Percent	Total Units, Thousand Square Feet
Residential	11,314	47.0%	53,512 DU
Estate Low Density Residential	1,108		1,662 DU
Low-Density Residential	7,738		29,273 DU
Low-Medium Density Residential	1,675		11,240 DU
Medium Density Residential	793		11,337 DU
Commercial	1,848	7.7%	27,644 SF
Old Towne	106		1,158 SF
General Commercial	1,314		21,435 SF
Office Professional	60		884 SF
Recreation Commercial	218		1,661 SF
Commercial Recreational	150		2,506 SF
Industrial	1,387	5.8%	23,458 SF
Public Facilities	988	4.1%	6,456 SF

Existing GP Land Use Designations	Acres	Percent	Total Units, Thousand Square Feet
Open Space	7,666	31.8%	NA
Parks	1,878		NA
Ridgeline	83		NA
Other Open Space	5,705		NA
Resource Areas	208	0.8%	NA
Transportation	661	2.8%	NA
TOTAL	24,072	100%	NA

DU = Dwelling Units; SF = Square Feet; NA = Not Applicable

Source: P&D Consultants and Keyser Marston Associates 2005; California Department of Finance 2004

**Table 4-2
Existing Development, City of Orange Planning Area, 2004**

Existing Development	Dwelling Units or Thousand Square Feet
Residential Development	
Estate and Low Density Residential	24,304 DU
Low-Medium Density Residential	4,234 DU
Medium Density Residential	14,834 DU
Total Residential Development	43,372 DU
Nonresidential Development	
Commercial	18,453 SF
Industrial	15,173 SF
Public Facilities	1,844 SF
Total Nonresidential Development	35,470 SF

DU = Dwelling Units; SF = Square Feet

Source: P&D Consultants and Keyser Marston Associates 2005; California Department of Finance 2004