4. Environmental Setting

4.1 INTRODUCTION

The purpose of this section is to provide, pursuant to provisions of the California Environmental Quality Act (CEQA) and the State CEQA Guidelines, a "description of the physical environmental conditions in the vicinity of the project, as they exist at the time the notice of preparation is published, from both a local and a regional perspective." The environmental setting will provide a set of baseline physical conditions that will serve as a tool from which the lead agency will determine the significance of environmental impacts resulting from the proposed project.

4.2 REGIONAL ENVIRONMENTAL SETTING

4.2.1 Regional Location

The City of San Bernardino is located approximately 60 miles east of the City of Los Angeles, at the southern base of the San Bernardino Mountains in the upper Santa Ana River Valley. This valley is framed by the San Bernardino Mountains on the northeast and east, Blue Mountain and Box Springs Mountain abutting the Cities of Loma Linda and Redlands to the south, and the San Gabriel Mountains and the Jurupa Hills to the northwest and southwest, respectively. The City is surrounded by the National Forest to the north, the Cities of Highland to the east, Redlands to the southeast, Loma Linda to the South, Colton to the southwest, and Rialto to the west. Arrowhead Springs is located in the same region, situated on the northern boundary of the City.

4.2.2 Regional Planning Considerations

4.2.2.1 Regional Comprehensive Plan and Guide

The Southern California Association of Governments (SCAG) is a council of governments representing Imperial, Los Angeles, Orange, Riverside, San Bernardino, and Ventura Counties. SCAG is a regional planning agency and serves as a forum for addressing regional issues concerning transportation, the economy, community development and the environment. Policies and programs adopted by SCAG to achieve regional objectives are expressed in its Regional Comprehensive Plan and Guide (RCPG). Some of these polices are advisory in nature. SCAG also serves as the regional clearinghouse for projects requiring environmental documentation under federal and state law. In this role, SCAG reviews proposed development and infrastructure projects to analyze their impacts on regional planning programs.

4.3 LOCAL ENVIRONMENTAL SETTING

4.3.1 Location and Land Use

4.3.1.1 San Bernardino

The City of San Bernardino is located in the south western portion of San Bernardino County, which is surrounded by Los Angeles County, Orange County, Riverside County, Kern County, and Inyo County, and the states of Nevada and Arizona. Major freeways traversing the City include the SR-259, SR-30, SR-330, SR-18, I-215, and I-10 Freeways. The City of San Bernardino encompasses an area that stretches from the 10 Freeway on the south to the Cajon Creek Wash and the San Bernardino Mountains on the north. The City's total planning area, including the SOI is 45,231 acres, or 71 square miles. This includes 38,402 acres, or 60 square miles, of incorporated territory and 6,829 acres, or 11 square miles of unincorporated lands.

4.3.1.2 Arrowhead Springs

Three hundred sixty eight acres of the Arrowhead Springs Specific Plan area are currently located in the incorporated City. The remaining 1,548 acres are located in unincorporated County of San Bernardino. The majority of the Arrowhead Springs property is currently undeveloped. As of 2005, the developed portions of the property consisted of less than 200 acres and approximately 300,000 square feet of buildings, including the historic 1939 hotel/spa resort, which consists of approximately 135 rooms, steam caves, ten residential-styled bungalows, an historic swimming pool, tennis courts, outdoor theater, meeting halls, and maintenance buildings.

4.3.2 Biological Resources

4.3.2.1 San Bernardino

The City of San Bernardino is largely urbanized and is surrounded by other developed cities. The biological conditions in San Bernardino and throughout the region are highly modified from a pristine environment, although some areas still retain significant biological resource value. Upland areas support inland coastal sage brush scrub vegetation with a fauna typical of such habitats in southern California. Alluvial fans and floodplains of the valley floor support distinctive scrub vegetation containing an assortment of plant life characteristic of alluvial fan sage scrub, coastal sage, scrub, and chaparral communities. Deep canyons support riparian and oak woodland habitats that provide a high quality habitat for a diverse assemblage of large and small wildlife species. Broad canyons and mountain slopes support mainly chaparral and woodland vegetation of relatively undisturbed nature. San Bernardino also supports a wide variety of plant, and animal species within its boundaries and SOI.

4.3.2.2 Arrowhead Springs

The Arrowhead Springs biological conditions have prior disturbances within the project site resulting from the construction and use of the Arrowhead Springs Hotel and Spa, associated facilities, roads and infrastructure. Outside the developed areas, plant communities support ruderal, mixed annual grassland and scrub, chaparral, riparian woodlands, and lower montane coniferous forest. In addition to its diverse natural communities, Arrowhead Springs Specific Plan area supports a wide variety of plant, tree, animal, and fish species within its boundaries.

4.3.3 Climate and Air Quality

The City of San Bernardino and Arrowhead Springs are located within the South Coast Air Basin (SCAB). The SCAB is a 6,600 square mile coastal plain bounded by the Pacific Ocean to the west and the San Gabriel, San Bernardino, and San Jacinto Mountains to the north and east. The SCAB includes all of the non-desert portions of San Bernardino, Los Angeles, Riverside counties and all of Orange County. Basin-wide conditions are characterized as warm summers, mild winters, infrequent rainfall, moderate onshore daytime breezes and moderate humidity. The yearly average temperature in the City of San Bernardino is 65.9°F[1], the average low is reported at 39.4°F in December/January, and the average high is 96.6°F in July. The average rainfall is 16.7 inches, with occasional summer thundershowers.

All seasons generally exhibit onshore flows during the day and offshore flows at night, after the land cools below the temperature of the ocean. The likelihood of strong offshore flows, including Santa Ana winds is greater during winter than summer.

[1] Western Regional Climate Center. City of San Bernardino. Obtained March, 2005 from http://www.wrcc.dri.edu/cgi-bin/cliMAIN.pl?casanb

The topography and climate of Southern California combine to produce unhealthful air quality in the South Coast Air Basin. Low temperature inversion, light winds, shallow vertical mixing, moist semi-arid climate, and extensive sunlight, in conjunction with a shallow marine layer that hinder horizontal and vertical dispersion of air pollutants, combine to create degraded quality.

4.3.4 Geology and Landform

4.3.4.1 San Bernardino

The City of San Bernardino lies on a gently sloping lowland located at the southwest margin of the San Bernardino Mountains. The area was primarily formed by alluvial sediments eroded from bedrock in the adjacent mountains and washed by rivers and creeks into the valley region. Sedimentary formations underlying the City are comprised of accumulated layers of gravel, sand, sandy silt, silt, clay, and conglomerates from the younger Holocene to late Mesozoic age. Many varieties of soils underlying the city are subject to soil-slip susceptibility and wind and water erosion.

There are two major fault systems that run within the City of San Bernardino; the San Andreas Fault system and the San Jacinto fault system. The San Andreas Fault system, including the north and south branches, forms the dominant fault feature in the City of San Bernardino area. The San Jacinto fault system includes the Glen Helen, San Jacinto, and Loma Linda Faults in the City of San Bernardino.

4.3.4.2 Arrowhead Springs

The Arrowhead Springs Specific Plan area can generally be described as hilly marked with sharp terrain, valleys, and inaccessible steep slopes of the San Bernardino Mountains. Ridges are underlain by either Potato Formation or by granitic-metamorphic complex. Within areas of the upper plateau and ridges, near the south, the subgrade soils are comprised of moderately dense, deeply weathered gravely sand with some silts.

4.3.5 Hydrology

4.3.5.1 San Bernardino

The City of San Bernardino is located within the Santa Ana River Basin (Region 8). The Santa Ana River is the major drainage system in the City. The river originates in the San Bernardino Mountains, traveling in a southwesterly direction to the sea at the Huntington Beach/Newport Beach city boundary. The Santa Ana River has a number of tributaries in the vicinity of San Bernardino that contribute flow to the main stem of the river including Lytle Creek, Waterman Canyon, Warm Creek, and East and West Twin Creek. The east branch of the California Aqueduct traverses the northwestern portion of the City. The City is located within the Bunker Hill Groundwater Basin and receives over 60 percent of its recharge from the Santa Ana River, Mill Creek, and Lytle Creek.

4.3.5.2 Arrowhead Springs

Arrowhead Springs is located within the Waterman Canyon and East Twin Creek watersheds. There are three primary water courses that flow through the Arrowhead Springs property. The East Twin Creek, Strawberry Creek, and West Twin Creek that flows through Waterman Canyon compose the major waterways. Natural springs and geothermal springs occur throughout the area.

4.3.6 Noise

4.3.6.1 San Bernardino

The City of San Bernardino is located in a transportation hub containing several major State Routes and Interstates (SR-18, SR-30, SE-330, SR-66, I-10, and I-215), major arterials, railways, and the San Bernardino International Airport and Trade Center that are the major contributors of noise. The General Plan area consists of industrial, commercial, business office, residential and hotel and retail land uses that are not generally considered to be noise sensitive. Noise sources include state highways, arterials, railroad, and aircraft overflights.

Temporary construction noise is generally high-level, short-duration noise, generated from heavy construction equipment and excavation and grading activities. Long term noise sources result predominately from automobiles, trucks, and railroad stations. Railroad operations serve as a prevalent source of noise depending on the volume of train traffic each lines represents. Trains travel on three different Southern Pacific Transportation Company (SPTC) rail lines; the Cajon Pass Line, the Main Line-Redlands, and the Main Line-Colton. In addition, the Atchison, Topeka and Santa Fe Railway Company also operate three rail lines within the City; the Santa Fe Subdivision Two Line, the Santa Fe Subdivision Three Line, and the Santa Fe Cajon Pass Line.

4.3.6.2 Arrowhead Springs

Temporary construction noise is from the MWD tunnel for the Inland Feeder Project and Noise levels from SR-18 Freeway.

4.3.7 Scenic Features

4.3.7.1 San Bernardino

The City of San Bernardino contains gradually sloping topography and is primarily urban in character. The low-lying valley is framed by the San Bernardino Mountains on the northeast and east, Blue Mountain and Box Springs Mountain to the south, and the San Gabriel Mountains and the Jurupa Hills to the northwest and southwest, respectively. The San Bernardino Mountains, to the north of the City of San Bernardino, climb to an elevation of 4,237 feet above mean sea level (msl) at Arrowhead Peak while the low lying valley is located at an elevation of approximately 1,000 feet above msl slowly rising toward the San Bernardino Mountains to the north. Although much of the character of San Bernardino can be derived from its unique setting adjacent to the San Bernardino Mountains, unique geothermal resources, and central location in the San Bernardino Valley, the City of San Bernardino also obtains much of its character from its distinct neighborhoods. Rivers, creeks, and washes and their unique natural biological communities that transverse the city, including the Santa Ana River, East and West Twin Creeks, Warm Creek, Cajon Creek, and Lytle Creek also add to the visual setting of the city.

There are no designated State Scenic Highways located within the City of San Bernardino or SOI areas, Highway 18, which travels through the San Bernardino Mountains past the Arrowhead Springs Specific Plan area is an eligible state scenic highway.

4.3.7.2 Arrowhead Springs

Arrowhead Springs shares much of the same visual character as the City of San Bernardino; however, being adjacent to the San Bernardino National Forest provides for vast areas of open space, buffering the small community from urban areas of the City of San Bernardino. The foreground of the Arrowhead Springs Specific Plan area is comprised of historic structures, such as the Arrowhead Springs Hotel.

Arrowhead Springs is named after its unique geologic formation that resembles an arrowhead, located on the slopes above the hotel and is featured predominately in photos of the area.

4.3.8 Public Services and Utilities

4.3.8.1 San Bernardino

Public services such as police and fire protection are currently provided by the City of San Bernardino to incorporated areas. Police services are provided by the San Bernardino Police Department and Fire services are provided by the San Bernardino City Fire Department. School services would be provided by the San Bernardino City Unified School District, the San Bernardino County Superintendent of Schools and a small portion of the Colton, Redlands and Rialto School Districts. Parks and recreation services are provided by the City of San Bernardino Community Services Department. Library services are provided by the City of San Bernardino.

Utilities are currently provided to the City of San Bernardino by a number of utility providers. Electricity would be provided by Southern California Edison (SCE). Natural gas is provided by the Southern California Gas Company (SGC. Telephone services are provided by Verizon and SBC and cable TV service is provided by Adelphia Cable, Mountain Shadows Cable, and Charter Communications. Water, wastewater, and sewer service are provided by the San Bernardino Municipal Water Department (SBMWD) and the East Valley Water District (EVWD). Solid waste pickup is provided by City of San Bernardino Public Services Department, Refuse & Recycling, plus a limited number of outside haulers through agreement with the City.

4.3.8.2 Arrowhead Springs

Public services are currently provided to Arrowhead Springs by a number of providers. Police services are provided to the incorporated portions of the Specific Plan area by the San Bernardino Police Department and the San Bernardino County Sheriffs Department provides service to the unincorporated portions. Fire services for incorporated portions of the Specific Plan Area are provided by the San Bernardino City Fire Department. Unincorporated areas are serviced by the County Fire Department. School services are provided by the SBCUSD. There are no public parks and recreation facilities currently located within Arrowhead Springs. Library services are provided by the City of San Bernardino.

Utilities are currently provided to the Arrowhead Springs area by a number of utility providers. Water and sewer are provided by Arrowhead Water & Power (AWP). Electricity is provided by Southern California Edison. Natural gas is provided by the Southern California Gas Company (SGC). Solid waste pickup is provided by City of San Bernardino Public Services Department, Refuse & Recycling.

4.3.9 General Plan and Zoning

4.3.9.1 San Bernardino

The existing General Plan Land Use plan and Zoning Map consists of 39 land use designations grouped under five broad categories: Residential, Commercial, Industrial, Other, and Open Space. Residential land use comprises 59.21 percent of the planning area. Commercial uses are divided into zoning designnations, representing 8.8 percent of the total planning area. Industrial uses are divided into six designations, representing 17.25 percent of the total planning area. Other uses are divided into five designations, representing 12.26 percent of the total planning area. Open Space is divided into three zoning designations, representing 2.48 percent of the total planning area. The SOI is comprised of 6,828 acres, or 10 square miles, of unincorporated County territory. The County of San Bernardino has jurisdiction over these areas and the County's General Plan Land Use Plan provides land use designations for the SOI These land use designations within the SOI include: rural living, single- and

multiple-family residential, neighborhood commercial, office commercial, floodway, resource conservation, institutional, and community and regional industrial. The San Bernardino International Airport and Trade Center (SBIA) is located in the southeastern edge of the City. The SBIA is comprised of two portions: the airport and related facilities of the former Norton Air Force Base and the Trade Center, which encompasses the non-airport portions of the property.

4.3.9.2 Arrowhead Springs

The incorporated portions of Arrowhead Springs are currently subject to the City of San Bernardino General Plan and Development Code. These areas are designated for Residential Estate (RE), Residential Low (RL), Residential Suburban (RS), and Public Flood Control (PFC) in the existing General Plan. The unincorporated portions of Arrowhead Springs are subject to the County of San Bernardino General Plan and Zoning Code. These areas are designated for Resource Conservation (RC), Rural Living-3 (RL-3), and Single Residential-1 (RS-1) by the County General Plan.

4.4 ASSUMPTIONS REGARDING CUMULATIVE IMPACTS

Section 15130 of the CEQA Guidelines states that cumulative impacts shall be discussed where they are significant. It further states that this discussion shall reflect the level and severity of the impact and the likelihood of occurrence, but not in as great a level of detail as that necessary for the project alone. Section 15355 of the Guidelines defines cumulative impacts to be "…two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts." Cumulative impacts represent the change caused by the incremental impact of a project when added to other proposed or committed projects in the vicinity.

The CEQA Guidelines [(Section 15130 (b)(1)] state that the information utilized in an analysis of cumulative impacts should come from one of two sources, either:

1) A list of past, present and probable future projects producing related cumulative impacts, including, if necessary, those projects outside the control of the agency; or

2) A summary of projections contained in an adopted general plan or related planning document designed to evaluate regional or area-wide conditions.

The cumulative impact analyses contained in this DEIR uses method 2, as described above. The proposed project consists of a comprehensive General Plan Update for the City of San Bernardino and its Sphere of Influence. Consistent with Section 15130(b)(1)(B) of the CEQA Guidelines, this DEIR analyzes the environmental impacts of development in accordance with the proposed General Plan Update. As a result, this DEIR addresses the cumulative impacts of development within the City of San Bernardino and its Sphere of Influence. Included in that Sphere of Influence is the entire Arrowhead Springs Specific Plan and consequently, it is also included in the cumulative impact analysis of the General Plan Update as a whole. Please refer to Section 5 of this DEIR for a discussion of the impacts associated with development and growth within the City and the SOI.