

## 3.4 Cultural Resources

This section describes the existing cultural resources conditions of the Northside Specific Plan Area (SPA) and vicinity, identifies associated regulatory requirements, evaluates potential impacts, and identifies mitigation measures (MMs) related to implementation of the proposed project. This section expands upon the Cultural Resources Baseline Report for the Northside Specific Plan, Cities of Riverside and Colton, Riverside and San Bernardino Counties, California (Appendix B).

### 3.4.1 Existing Conditions

#### **Prehistoric Overview**

Evidence for continuous human occupation in Southern California spans the last 10,000 years. Various attempts to parse out variability in archaeological assemblages over this broad period have led to the development of several cultural chronologies; some of these are based on geologic time; most are based on temporal trends in archaeological assemblages; and others are interpretive reconstructions. Each of these reconstructions describes essentially similar trends in assemblage composition in more or less detail. However, given the direction of research and differential timing of archaeological study following intensive development in Riverside County and San Bernardino County, chronology building in the Inland Empire must rely on data from neighboring regions to fill the gaps. To be more inclusive, this research employs a common set of generalized terms used to describe chronological trends in assemblage composition: Paleoindian (pre-5500 BC), Archaic (8000 BC–AD 500), Late Prehistoric (AD 500–1769), and Ethnohistoric (post-AD 1769).

#### ***Paleoindian Period (pre-5500 BC)***

Evidence for Paleoindian occupation in the region is tenuous. Our knowledge of associated cultural pattern(s) is informed by a relatively sparse body of data that has been collected from within an area extending from coastal San Diego, through the Mojave Desert, and beyond. One of the earliest dated archaeological assemblages in coastal Southern California (excluding the Channel Islands) derives from SDI-4669/W-12 in La Jolla. A human burial from SDI-4669 was radiocarbon dated to 9,590–9,920 years before present (95.4% probability) (Hector 2006). The burial is part of a larger site complex that contained more than 29 human burials associated with an assemblage that fits the Archaic profile (i.e., large amounts of ground stone, battered cobbles, and expedient flake tools). In contrast, typical Paleoindian assemblages include large stemmed projectile points, high proportions of formal lithic tools, bifacial lithic reduction strategies, and relatively small proportions of ground stone tools. Prime examples of this pattern are sites that were studied by Emma Lou Davis (1978) on Naval Air Weapons Station China Lake near Ridgecrest, California. These sites contained fluted and unfluted stemmed points and large numbers of formal flake tools (e.g., shaped scrapers, blades). Other typical Paleoindian sites include the Komodo site (MNO-679)—a multi-component fluted point site, and MNO-680—a single component Great Basin stemmed point site (see Basgall et al. 2002). At MNO-679 and MNO-680, ground stone tools were rare while finely made projectile points were common.

Warren et al. (2004) claimed that a biface manufacturing tradition present at the Harris site complex (SDI-149) is representative of typical Paleoindian occupation in the San Diego region that possibly dates between 10,365 and 8200 BC (Warren et al. 2004). Termed San Dieguito (see also Rogers 1945), assemblages at the Harris site are qualitatively distinct from most others in the San Diego region because the site has large numbers of finely made bifaces (including projectile points), formal flake tools, a biface reduction trajectory, and relatively small amounts of processing tools (see also Warren 1964, 1968). Despite the unique assemblage composition, the definition of

San Dieguito as a separate cultural tradition is hotly debated. Gallegos (1987) suggested that the San Dieguito pattern is simply an inland manifestation of a broader economic pattern. Gallegos's interpretation of San Dieguito has been widely accepted in recent years, in part because of the difficulty in distinguishing San Dieguito components from other assemblage constituents. In other words, it is easier to ignore San Dieguito as a distinct socioeconomic pattern than it is to draw it out of mixed assemblages.

The large number of finished bifaces (i.e., projectile points and non-projectile blades), along with large numbers of formal flake tools at the Harris site complex, is very different than nearly all other assemblages throughout the San Diego region, regardless of age. Warren et al. (2004) made this point, tabulating basic assemblage constituents for key early Holocene sites. Producing finely made bifaces and formal flake tools implies that relatively large amounts of time were spent for tool manufacture. Such a strategy contrasts with the expedient flake-based tools and cobble-core reduction strategy that typifies non-San Dieguito Archaic sites. It can be inferred from the uniquely high degree of San Dieguito assemblage formality that the Harris site complex represents a distinct economic strategy from non-San Dieguito assemblages.

San Dieguito sites are rare in the inland valleys, with one possible candidate, RIV-2798/H, located on the shore of Lake Elsinore. Excavations at Locus B at RIV-2798/H produced a toolkit consisting predominately of flaked stone tools, including crescents, points, and bifaces, and lesser amounts of groundstone tools, among other items (Grenda 1997). A calibrated and reservoir-corrected radiocarbon date from a shell produced a date of 6630 BC. Grenda (1997) suggested this site represents seasonal exploitation of lacustrine resources and small game and resembles coastal San Dieguito assemblages and spatial patterning.

If San Dieguito truly represents a distinct socioeconomic strategy from the non-San Dieguito Archaic processing regime, its rarity implies that it was not only short-lived, but that it was not as economically successful as the Archaic strategy. Such a conclusion would fit with other trends in Southern California deserts, where hunting-related tools were replaced by processing tools during the early Holocene (see Basgall and Hall 1990).

#### ***Archaic Period (8000 BC–AD 500)***

The more than 2,500-year overlap between the presumed age of Paleoindian occupations and the Archaic period highlights the difficulty in defining a cultural chronology in Southern California. If San Dieguito is the only recognized Paleoindian component in coastal Southern California, then the dominance of hunting tools implies that it derives from Great Basin adaptive strategies and is not necessarily a local adaptation. Warren et al. (2004) admitted as much, citing strong desert connections with San Dieguito. Thus, the Archaic pattern is the earliest local socioeconomic adaptation in the region (see Hale 2001, 2009).

The Archaic pattern, which has also been termed the Millingstone Horizon (among others), is relatively easy to define with assemblages that consist primarily of processing tools, such as millingstones, handstones, battered cobbles, heavy crude scrapers, incipient flake-based tools, and cobble-core reduction. These assemblages occur in all environments across the region with little variability in tool composition. Low assemblage variability over time and space among Archaic sites has been equated with cultural conservatism (see Basgall and Hall 1990; Byrd and Reddy 2002; Warren 1968; Warren et al. 2004). Despite enormous amounts of archaeological work at Archaic sites, little change in assemblage composition occurred until the bow and arrow was adopted around AD 500, as well as ceramics at approximately the same time (Griset 1996; Hale 2009). Even then, assemblage formality remained low. After the bow was adopted, small arrow points appear in large quantities and already low amounts of formal flake tools are replaced by increasing amounts of expedient flake tools. Similarly, shaped millingstones and handstones decreased in proportion relative to expedient, unshaped ground stone tools (Hale

2009). Thus, the terminus of the Archaic period is equally as hard to define as its beginning because basic assemblage constituents and patterns of manufacturing investment remain stable, complemented only by the addition of the bow and ceramics.

### ***Late Prehistoric Period (AD 500–1769)***

The period of time following the Archaic and before Ethnohistoric times (AD 1769) is commonly referred to as the Late Prehistoric (Rogers 1945; Wallace 1955; Warren et al. 2004); however, several other subdivisions continue to be used to describe various shifts in assemblage composition. In general, this period is defined by the addition of arrow points and ceramics, as well as the widespread use of bedrock mortars. The fundamental Late Prehistoric assemblage is very similar to the Archaic pattern, but includes arrow points and large quantities of fine debitage from producing arrow points, ceramics, and cremations. The appearance of mortars and pestles is difficult to place in time because most mortars are on bedrock surfaces. Some argue that the Ethnohistoric intensive acorn economy extends as far back as AD 500 (Bean and Shipek 1978). However, there is no substantial evidence that reliance on acorns, and the accompanying use of mortars and pestles, occurred before AD 1400. In Riverside County and the surrounding region, millingstones and handstones persisted in higher frequencies than mortars and pestles until the last 500 years (Basgall and Hall 1990); even then, weighing the economic significance of millingstone-handstone versus mortar-pestle technology is tenuous due to incomplete information on archaeological assemblages.

### ***Ethnohistoric (post-AD 1769)***

The history of the Native American communities prior to the mid-1700s has largely been reconstructed through later mission-period and early ethnographic accounts. The first records of the Native American inhabitants of the region come predominantly from European merchants, missionaries, military personnel, and explorers. These brief, and generally peripheral, accounts were prepared with the intent of furthering respective colonial and economic aims and were combined with observations of the landscape. They were not intended to be unbiased accounts regarding the cultural structures and community practices of the newly encountered cultural groups. The establishment of the missions in the region brought more extensive documentation of Native American communities, though these groups did not become the focus of formal and in-depth ethnographic study until the early twentieth century (Bean and Shipek 1978; Boscana 1846; Fages 1937; Geiger and Meighan 1976; Harrington 1934; Laylander 2000; Sparkman 1908; White 1963). The principal intent of these researchers was to record the precontact, culturally specific practices, ideologies, and languages that had survived the destabilizing effects of missionization and colonialism. This research, often understood as “salvage ethnography,” was driven by the understanding that traditional knowledge was being lost due to the impacts of modernization and cultural assimilation. Alfred Kroeber applied his “memory culture” approach (Lightfoot 2005:32) by recording languages and oral histories within the region. Ethnographic research by Dubois, Kroeber, Harrington, Spier, and others during the early twentieth century seemed to indicate that traditional cultural practices and beliefs survived among local Native American communities.

It is important to note that even though there were many informants for these early ethnographies who were able to provide information from personal experiences about native life before the Europeans, a significantly large proportion of these informants were born after 1850 (Heizer and Nissen 1973); therefore, the documentation of pre-contact, aboriginal culture was being increasingly supplied by individuals born in California after considerable contact with Europeans. As Robert F. Heizer (1978) stated, this is an important issue to note when examining these ethnographies, since considerable culture change had undoubtedly occurred by 1850 among the Native American survivors of California.

Based on ethnographic information, it is believed that at least 88 different languages were spoken from Baja California Sur to the southern Oregon state border at the time of Spanish contact (Johnson and Lorenz 2006: 34). The distribution of recorded Native American languages has been dispersed as a geographic mosaic across California through six primary language families (Golla 2007).

Victor Golla has contended that one can interpret the amount of variability within specific language groups as being associated with the relative “time depth” of the speaking populations (Golla 2007:80). A large amount of variation within the language of a group represents a greater time depth than a group’s language with less internal diversity. One method that he has employed is by drawing comparisons with historically documented changes in Germanic and Romantic language groups. Golla has observed that the “absolute chronology of the internal diversification within a language family” can be correlated with archaeological dates (2007:71). This type of interpretation is modeled on concepts of genetic drift and gene flows that are associated with migration and population isolation in the biological sciences.

The tribes of this area have traditionally spoken Takic languages that may be assigned to the larger Uto–Aztecan family (Golla 2007:74). These groups include the Gabrielino, Cahuilla, and Serrano. Golla has interpreted the amount of internal diversity within these language-speaking communities to reflect a time depth of approximately 2,000 years. Other researchers have contended that Takic may have diverged from Uto–Aztecan ca. 2600 BC–AD 1, which was later followed by the diversification within the Takic speaking tribes, occurring approximately 1500 BC–AD 1000 (Laylander 2010).

### **Ethnographic Overview**

The current SPA is located at the intersection of the traditional territory for four ethnographic groups: the Gabrielino/Tongva, the Cahuilla, Serrano, and the Luiseño. A brief discussion of each group is presented below.

#### ***Gabrielino/Tongva***

The name “Gabrielino” denotes those people who were administered by the Spanish from Mission San Gabriel Arcángel, which included people from the Gabrielino area proper as well as other social groups (Bean and Smith 1978:538; Kroeber 1925: Plate 57). Therefore, in the post-contact period, the name does not necessarily identify a specific ethnic or tribal group. The names by which Native Americans in Southern California identified themselves have, for the most part, been lost. Many contemporary Gabrielino identify themselves as descendants of the indigenous people living across the plains of the Los Angeles Basin and refer to themselves as the Tongva (King 1994:12). This term is used in the remainder of this section to refer to the pre-contact inhabitants of the Los Angeles Basin and their descendants.

The Tongva language, as well as that of the neighboring Luiseño/Juaneño, Tatataviam/Alliklik, and Serrano, belongs to the Takic branch of the Uto-Aztecan language family, which can be traced to the Great Basin area (Mithun 2001:539, 543–544). The Tongva language consisted of two main dialects, Eastern and Western; the Western included much of the coast and the Channel Islands population. Lands of the Western group encompassed much of the western Los Angeles Basin and San Fernando Valley, northward along the coast to the Palos Verdes Peninsula (McCawley 1996:47).

The Tongva established large, permanent villages in the fertile lowlands along rivers and streams, and in sheltered areas along the coast, stretching from the foothills of the San Gabriel Mountains to the Pacific Ocean. A total tribal population has been estimated of at least 5,000 (Bean and Smith 1978:540), but recent ethnohistoric work suggests a number approaching 10,000 seems more likely (O’Neil 2002). At least one Tongva village was located near Glendora: Ashuukshanga (also Azucsagna), located near the mouth of the San Gabriel River in present-day Azusa (McCawley 1996:44).

The Tongva subsistence economy was centered on gathering and hunting. The surrounding environment was rich and varied, and the tribe exploited mountains, foothills, valleys, and deserts as well as riparian, estuarine, and open and rocky coastal eco-niches. Like most native Californians, acorns were the staple food (an established industry by the time of the early Intermediate Horizon). Acorns were supplemented by the roots, leaves, seeds, and fruits of a variety of flora (e.g., islay, cactus, yucca, sages, and agave). Freshwater and saltwater fish, shellfish, birds, reptiles, and insects, as well as large and small mammals, were also consumed (Bean and Smith 1978:546; Kroeber 1925:631–632; McCawley 1996:119–123, 128–131).

The Tongva participated in an extensive exchange network, trading coastal goods for inland resources. They exported Santa Catalina Island steatite products, roots, seal and otter skins, fish and shellfish, red ochre, and lead ore to neighboring tribes, as well as to people as far away as the Colorado River. In exchange, they received ceramic goods, deerskin shirts, obsidian, acorns, and other items. This burgeoning trade was facilitated by the use of craft specialists, a standard medium of exchange (*Olivella* bead currency), and the regular destruction of valuables in ceremonies, which maintained a high demand for these goods (McCawley 1996:112–115).

#### **Cahuilla**

Cahuilla territory was bounded on the north by the San Bernardino Mountains; on the east by the Orocopia Mountains; on the west by the Santa Ana River, the San Jacinto Plain, and the eastern slope of the Palomar Mountains; and on the south by Borrego Springs and the Chocolate Mountains (Bean 1978).

The diversity of the territory provided the Cahuilla with a variety of foods. It has been estimated that the Cahuilla exploited more than 500 native and non-native plants (Bean and Saubel 1972). Acorns, mesquite, screw beans, piñon nuts, and various types of cacti were used. A variety of seeds, wild fruits and berries, tubers, roots, and greens were also a part of the Cahuilla diet. A marginal agricultural existence provided corn, beans, squashes, and melons. Rabbits and small animals were hunted to supplement the diet. During high stands of ancient Lake Cahuilla (the predecessor of today's Salton Sea), fish, migratory birds, and marshland vegetation were taken for sustenance and utilitarian purposes (Bean 1978).

Structures within permanent villages ranged from small brush shelters to dome-shaped or rectangular dwellings. Villages were situated near water sources, in the canyons near springs, or on alluvial fans at man-made walk-in wells (Bean 1972). Mortuary practices entailed cremation of the dead. Upon a person's death, the body was bound or put inside a net and then cremated. Secondary interments also occurred. A mourning ceremony took place about a year after death. During this ceremony, an image of the deceased was burned along with other goods (Lando and Modesto 1977; Strong 1929).

Pre-contact Cahuilla population has been estimated as low as 2,500 to as high as 10,000. At the time of first contact with Europeans, around 1774, the Cahuilla numbered approximately 6,000. Although they were the first to come into contact with the Cahuilla, the Spanish had little to do with those of the desert region. Some of the Cahuilla who lived in the plains and valleys west of the desert and mountains, however, were missionized through the *asistencia* located in present day Redlands. Cahuilla political, economic, and religious autonomy was maintained until 1877 when the United States government established Indian reservations in the region. At about that time, protestant missionaries came into the area to convert the Native American population. During this era, traditional cultural practices, such as cremation of the dead, were prohibited. Today, the Cahuilla reside on eight separate reservations in Southern California, located from Banning in the north to Warner Springs in the south and from Hemet in the west to Thermal in the east (Bean 1978).

### **Serrano**

The Serrano occupied an area in and around the San Bernardino Mountains between approximately 1,500 and 11,000 feet above mean sea level. Their territory extended west along the northern slope of the San Gabriel Mountains, east as far as Twentynine Palms, north along the Mojave River, and south to the San Jacinto area. The Serrano were mainly hunters and gatherers who occasionally fished. Game hunted included mountain sheep, deer, antelope, rabbits, small rodents, and various birds, particularly quail. Vegetable staples consisted of acorns, piñon nuts, bulbs and tubers, shoots and roots, berries, mesquite, barrel cacti, and Joshua tree (Bean and Smith 1978; Cultural Systems Research 2005:15).

A variety of materials was used for hunting, gathering, and processing food, as well as for shelter, clothing, and luxury items. Shells, wood, bone, stone, plant materials, and animal skins and feathers were used for making baskets, pottery, blankets, mats, nets, bags and pouches, cordage, awls, bows, arrows, drills, stone pipes, musical instruments, and clothing (Bean and Smith 1978).

Settlement locations were determined by water availability, and most Serranos lived in small villages near water sources. Houses and *ramadas* were round and constructed of poles covered with bark and tule mats (Kroeber 1925). Most Serrano villages also had a ceremonial house used as a religious center. Other structures within the village might include granaries and sweathouses (Bean and Smith 1978).

Serrano social organization was based on patrilineal and patrilocal lineages. Exogamy rules required that a man could not marry a woman related to them within five generations. Women moved to their husband's village, but kept their identity as a member of their natal lineage (Cultural Systems Research 2005:15).

Partly due to their mountainous inland territory, contact between Serrano and European-Americans was minimal prior to the early 1800s. In 1819, an *asistencia* or outpost of the San Gabriel Mission was established near present-day Redlands and was used to help relocate many Serrano to the mission. However, small groups of Serrano remained in the area northeast of the San Gorgonio Pass and were able to preserve some of their native culture. Today, most Serrano live either on the Morongo or San Manuel reservations (Bean and Smith 1978).

### **Luiसेño**

Luiसेño territory encompassed an area from roughly Agua Hedionda Creek on the coast, east to Lake Henshaw, north to Lake Elsinore, and west through San Juan Capistrano to the coast (Bean and Shipek 1978; Kroeber 1925). The Luiसेño shared boundaries with the Gabrielino and Serrano to the west and northwest, the Cahuilla from the deserts to the east, the Cupeño to the southeast, and the Kumeyaay to the south.

The Uto–Aztecan inhabitants of western Riverside County and northern San Diego County were called Luiसेños by Franciscan friars, who named the San Luis Rey River and established the San Luis Rey Mission in the heart of Luiसेño territory. Luiसेño population estimates at the time of Spanish contact range from 3,000–4,000 (Kroeber 1925) to upwards of 10,000 (White 1963). In either case, the arrival of the Spanish undoubtedly decimated Native peoples through disease and changed living conditions (Bean and Shipek 1978).

The Luiसेño were organized into patrilineal clans or bands centered on a chief, comprised of 25–30 people (Kroeber 1925), each of which had their own territorial land or range where food and other resources were collected at different locations throughout the year (Sparkman 1908). The title of chief was heritable along family lines. Inter-band conflict was most common over trespassing. Sparkman observed that “when questioned as to when or how

the land was divided and sub-divided, the Indians say they cannot tell, that their fathers told them that it had always been thus” (1908). Place names were assigned to each territory, often reflecting common animals, plants, physical landmarks, or cosmological elements that were understood as being related to that location. Marriages were generally arranged by parents or guardians. Free and widowed women had the option to choose their partner. Polygamy occurred though was not common, often with a single man marrying a number of sisters and wives. Shamanism was a major component in tribal life. The physical body and its components was thought to be related to the power of an individual, and wastes such as fluids, hair, and nails were discarded with intent. Hair, once cut, was often carefully collected and buried to avoid being affected negatively or controlled by someone who wishes them harm. Some locations and natural resources were of cultural significance. Springs and other water-related features were thought to be related with spirits. These resources, often a component of origin stories, had power that came with a variety of risks and properties to those who became affected. Puberty ceremonies for both boys and girls were complex and rigorous. Mourning ceremonies were similar throughout the region, generally involving cutting of the hair, burning of the deceased’s clothes a year after death, and redistribution of personal items to individuals outside of the immediate tribal group (Sparkman 1908; Kroeber 1925).

The staple food of the Luiseños during the ethnohistoric period was acorns (Sparkman 1908). Of the at least six oak species within this tribal groups traditional territory, the most desirable of these was the black oak (*Quercus kelloggii*) due to its ease of processing, protein content, and digestibility. Acorns were stored in granaries to be removed and used as needed. The acorns were generally processed into flour using a mortar and pestle. The meal was most commonly leached with hot water and the use of a rush basket; however, there are also accounts of placing meal into excavated sand and gravel pits to allow the water to drain naturally. The acorn was then prepared in a variety of ways, though often with the use of an earthen vessel (Sparkman 1908). Other edible and medicinal plants of common use included wild plums, choke cherries, Christmas berry, gooseberry, elderberry, willow, *Juncus*, buckwheat, lemonade berry, sugar bush, sage scrub, currents, wild grapes, prickly pear, watercress, wild oats, and other plants. More arid plants such as *Yucca*, *Agave*, mesquite, chia, bird-claw fern, *Datura*, yerba santa, *Ephedra*, and cholla were also of common use by some Luiseño populations. A number of mammals were commonly eaten. Game animals included back-tailed deer, antelope, rabbits, hares, birds, ground squirrels, woodrats, bears, mountain lions, bobcats, coyotes, and others. In lesser numbers, reptiles and amphibians may have been consumed. Fish and marine resources provided some portion of many tribal communities, though most notably those nearest the coast. Shellfish would have been procured and transported inland from three primary environments, including the sandy open coast, bay and lagoon, and rocky open coast. The availability of these marine resources changed with the rising sea levels, siltation of lagoon and bay environments, changing climatic conditions, and intensity of use by humans and animals.

### Historic-Period Overview

Post-contact history for the State of California is generally divided into three periods: the Spanish Period (1769–1821), Mexican Period (1821–1848), and American Period (1846–present). Although Spanish, Russian, and British explorers visited the area for brief periods between 1529 and 1769, the Spanish Period in California begins with the establishment in 1769 of a settlement at San Diego and the founding of Mission San Diego de Alcalá, the first of 21 missions constructed between 1769 and 1823. Independence from Spain in 1821 marks the beginning of the Mexican Period, and the signing of the Treaty of Guadalupe Hidalgo in 1848, ending the Mexican–American War, signals the beginning of the American Period when California became a territory of the United States.

### **Spanish Period (1769–1821)**

Spanish explorers made sailing expeditions along the coast of Southern California between the mid-1500s and mid-1700s. In search of the legendary Northwest Passage, Juan Rodríguez Cabrillo stopped in 1542 at present-day San Diego Bay. With his crew, Cabrillo explored the shorelines of present Catalina Island as well as San Pedro and Santa Monica Bays. Much of the present California and Oregon coastline was mapped and recorded in the next half-century by Spanish naval officer Sebastián Vizcaíno. Vizcaíno's crew also landed on Santa Catalina Island and at San Pedro and Santa Monica Bays, giving each location its long-standing name. The Spanish crown laid claim to California based on the surveys conducted by Cabrillo and Vizcaíno (Bancroft 1885; Gumprecht 1999).

More than 200 years passed before Spain began the colonization and inland exploration of Alta California. The 1769 overland expedition by Captain Gaspar de Portolá marks the beginning of California's Historic period, occurring just after the King of Spain installed the Franciscan Order to direct religious and colonization matters in assigned territories of the Americas. With a band of 64 soldiers, missionaries, Baja (lower) California Native Americans, and Mexican civilians, Portolá established the Presidio of San Diego, a fortified military outpost, as the first Spanish settlement in Alta California. In July of 1769, while Portolá was exploring Southern California, Franciscan Fr. Junípero Serra founded Mission San Diego de Alcalá at Presidio Hill, the first of the 21 missions that would be established in Alta California by the Spanish and the Franciscan Order between 1769 and 1823 (Bancroft 1885; Gumprecht 1999).

Included in the 21 missions is the Mission San Luis Rey de Francia at the Luiseño village of Temecula. In 1819, the Mission granted land to Leandro Serrano, the highest locally appointed official (or "*mayordomo*") of San Antonio de Pala Asistencia, for the Mission of San Luis Rey for Rancho Temescal. From around 1819 until his death in 1852, Serrano built and occupied three separate adobe residences in the county. In 1828, Leandro was elected as the *mayordomo* of Mission San Juan Capistrano. Serrano's family resided in the third adobe residence until around 1898 (Elderbee 1918).

### **Mexican Period (1821–1846)**

It was in the early 1820s that Spain's grip on its expansive subjugated territories began to unravel, which greatly affected the political and national identity of the Southern California territory. Mexico established its independence from Spain in 1821, secured California as a Mexican territory in 1822, and became a federal republic in 1824. After the Mexican independence and the 1833 confiscation of former Mission lands, Juan B. Alvarado became governor of the territory. In 1836, Alvarado began the process of subdividing the County of Riverside into large ranchos: Rancho Jurupa in 1838; El Rincon in 1839; Rancho San Jacinto Viejo in 1842; Rancho San Jacinto y San Gorgonio in 1843; Ranchos La Laguna, Pauba, and Temecula in 1844; Ranchos Little Temecula and Potreritos de San Juan Capistrano in 1845; and Ranchos San Jacinto Sobrante, La Sierra (Sepulveda), La Sierra (Yorba), Santa Rosa, and San Jacinto Nuevo y Potrero in 1846 (Brown and Boyd 1922; Fitch 1993).

While these ranchos were established in documentation, the cultural and commercial developments of the Ranchos were punctuated and generally slow with little oversight or assistance from the government in Mexico. In September 1838, Governor Alvarado granted "7 leagues" or 31,000 acres to be called Rancho Jurupa to a Peruvian and Mexican War of Independence veteran, Don Juan Bandini (Stonehouse 1965; Vickery 2007).

In 1843, La Placita de los Trujillos, or "San Salvador" (also known as "Spanish Town"), was established in Riverside County and has been since recognized as one of the first non-native settlements in the San Bernardino Valley (Brown and Boyd 1922). A group of *genízaro* colonists from Abiquiú, New Mexico, arrived in the area in the early

1840s (Nostrand 1996). *Genízaro* is a term used by the Spanish to describe one of the racial castes of displaced Native Americans, usually Plains Indians, sold by other tribes into bonded slavery, and typically worked off their bond in 10–20 years. Lorenzo Trujillo, the leader of the *genízaro* colonists, led 10 of the colonist families from New Mexico to Jurupa Valley via the Old Spanish Trail. Don Juan Bandini donated a portion of Rancho Jurupa to them on the condition that they would assist in protecting his livestock from raiding Native American bands. This amounted to 2,000 acres on the “Bandini Donation” on the southeast bank of the Santa Ana River and formed the village of La Placita de los Trujillos. In 1852, the same year that Leandro Serrano died, the Los Angeles County Board of Supervisors established a town called “San Salvador” encompassing a number of small, growing communities in the area initially known as “La Placita” (Elderbee 1918; Vickery 2007).

#### ***American Period (1846–Present)***

The Mexican-American War from 1846 to 1848 ended with Mexico ceding the Alta California lands to the United States, and the establishment of land ownership via court orders and surveys soon followed. The Treaty of Guadalupe Hidalgo, which ceded 525,000 square miles to the United States, established a peace while also preserving the rancho land grants. Bandini’s Jurupa Rancho was preserved in its entirety, as was the Bandini Donation and San Salvador. San Salvador was mainly a community of agriculture and animal husbandry until the Great Flood of 1862, which destroyed most of the established town when the Santa Ana River broke banks in February 1862. Though the San Salvatorans began rebuilding right away, the flood damaged and changed the Santa Ana River course, cutting off their access to natural spring water and depositing over fertile farming soil with sand. As a result, rebuilding effort concentrated to the southeast of the Santa Ana River on the higher ground below the La Loma Hills. A smallpox epidemic and then a multi-year drought finally forced the community to seek work away from San Salvador, further fragmenting the community. Abel Stearns, a Los Angeles-based developer, who acquired Don Juan Bandini’s lands in 1859, began to seek legal means to evict the San Salvatorans from the Bandini Donation. Stearns brought an eviction suit in 1869, claiming that the San Salvatoran’s post-flood move invalidated the terms of the Bandini Donation, but he was overturned and the land remained in San Salvatoran settler possession (Vickery 2007; Howell-Ardila 2018).

However, in the rest of the Jurupa Valley, issues concerning the land rights immediately ensued with results that often largely favored newly introduced American interests (Starr 2007; Hale 1888). In the 1860s and 1870s there were several Riverside County and San Bernardino County colony and association-style settlements established to generate new settlements. A heavy influx of new immigrants from not only across the United States but international travelers, many from Asian and Latin American countries, changed the dynamics of the local populations. The local population growth was further facilitated by the creation of the Temescal Station of the Butterfield Overland Mail Route in 1857, as well as the completion of the transcontinental railroad. Two such colonies appeared east and south of San Salvador: the Slover Mountain Colony Association (now, Colton) formed in 1873, and the Southern California Colony Association (now, downtown Riverside) formed in 1870 (Elderbee 1918; Vickery 2007).

It was the large commercial market for orchard fruits, particularly the Washington Navel Orange, that would come to dominate the economic growth of the region. Water rights and irrigation channeling began to take water away from and further upriver from the San Salvatoran irrigation canals. Ensuing water rights battles would play out in court until the twentieth century (Elderbee 1918; Vickery 2007).

## Northside SPA Historic Context

### *City of Riverside Historical Overview*

In March of 1870, John Wesley North issued a circular entitled “A Colony for California” to promote the idea of founding an agriculture-based colony in California. Prospective investors met in Chicago on May 18, and the interest expressed led to formation of the Southern California Colony Association. This success prompted North to head to Los Angeles. North arrived on May 26, initially intending to settle the colony near Los Angeles. However, the association directors decided on the Jurupa Rancho along the banks of the Santa Ana River, purchasing it from the California Silk Association in August 1870. By the end of the year, Riverside was surveyed and platted with 10-acre parcels and a 1-square-mile townsite (Grimes and Chiang 2009). North then took up residence on site for the purpose of surveying and developing the colony. He envisioned small-scale farmers growing fruits appropriate to paradise: oranges, lemons, figs, walnuts, olives, almonds, grapes, sweet potatoes, sorghum, and sugar beets (Stonehouse 1965). The community was originally called “Yurupa” but the name was changed to “Riverside” in December of 1870. Between 1880 and 1890, the City’s population grew from approximately 1,350 to 4,600 residents, and grew from its original 1-square-mile town center to nearly 56 square miles by 1883. In 1883, the City of Riverside incorporated (Grimes and Chiang 2009; Howell-Ardila 2018; Stonehouse 1965; Patterson 1971; Wlodarski 1993).

The citrus industry increased dramatically during the 1880s, with promotion of the area shifting to focus on the potential wealth to be had through agriculture (Caltrans 2007). Of particular note is the introduction of the navel orange to the budding California citrus industry. Two navel orange trees from Brazil’s Bahia Province were gifted to Eliza Tibbets by William Saunders, horticulturalist at the U. S. Department of Agriculture. Eliza and her husband, Luther, brought the trees to the Riverside colony and planted them in 1873. These parent trees produced sweet-tasting seedless fruits, sparking the interest of local farmers and becoming so popular that the fruits from these trees eventually became known as “Riverside Navel.” The fruit’s popularity helped establish Riverside as a national leader in cultivating oranges. One of the two original parent Washington navel orange trees is still extant, growing near the intersection of Arlington and Magnolia Avenue, and is “mother to millions of navel orange trees the world over”; the tree is designated as California Historical Landmark No. 20 (Howell-Ardila 2018; Hurt 2014).

North originally intended that the colony would build, own, and operate its own irrigation system, but the desert mesa location made such a venture prohibitively expensive. Thus, the Southern California Company Association joined forces with the Silk Center Association to develop the irrigation project. After completing a canal survey, work began in October 1870 to construct a canal 12 feet wide, narrowing to 8 feet at the base, and 3 feet deep, known as the Upper Riverside Canal (Stonehouse 1965). This was in direct conflict with the water rights of farmers and ranchers in San Salvator, renamed by Riverside settlers as “Spanishtown,” despite being populated by *genízaro* colonists (Vickery 2007). With continued growth of the area, a second canal was constructed, and by 1878 the Riverside Canal Company was formed, only to be superseded, due to litigation, by the Riverside Water Company in 1886 (Bailey 1961). Further growth in the region led to construction of a third major canal, called the “Gage Canal,” built during 1882–1888 (Guinn 1907; Wlodarski 1993). Development of such a stable water supply bolstered the agricultural industry, helping facilitate the booming citrus industry in Riverside. By 1895, around 20,000 acres of navel orange groves had been planted, and the citrus industry became the primary economic influence for the region well into the turn of the century (Guinn 1907; Brown 1985). This rapid growth of such a vibrant citrus industry led to Riverside becoming the wealthiest city per capita in the United States by 1895 (March Field Air Museum 2011). The growing citrus industry was in turn stimulated by another major factor that would strongly influence the cultural development of Riverside: the advent of the railroad, in particular the transcontinental railroad.

In the later-nineteenth century, the railroad industry began to connect vast swaths of the county with a rail-line transportation system that had previously required extremely slow travel and often with dangerous travel conditions. The initial rail line developed in the region around 1882 was the California Southern railroad, which then connected with the Santa Fe transcontinental line in 1885. In 1887, C.W. Smith and Fred Ferris of the California Southern Railroad and J.A. Green incorporated the Valley Railway to serve the region. The San Jacinto Valley Railroad was constructed the next year, in 1888; it traveled southeast from Perris, then east across the valley, gradually curving northeast to its terminus at San Jacinto (George and Hamilton 2009). With the combination of rail transportation, the packing industry, and cold storage facilities, Riverside was able to yield over one-half million boxes of oranges by 1890 (Wlodarski 1993).

At the end of the nineteenth century, counties were established, and the area today known as Riverside County was divided between Los Angeles County and San Diego County. In 1853, the eastern part of Los Angeles County was used to create San Bernardino County. Between 1891 and 1893, several proposals and legislative attempts were put forth to form new counties in Southern California. These proposals included one for a Pomona County and one for a San Jacinto County; however, no proposals were adopted to create Riverside County until the California Board of Commissioners filed the final canvass of the votes, and the measure was signed by Governor Henry H. Markham on March 11, 1893 (Brown and Boyd 1922).

After the turn of the twentieth century, during the years just before the United States' involvement in World War I, the U.S. War Department began building up its strength in anticipation of involvement in the war and announced plans for several new military bases. A group of local Riverside business owners and investors received approval to construct the Alessandro Flying Training Field, which opened on March 1, 1918. Sited on the plateau overlooking Riverside, the Alessandro Flying Training Field was renamed March Field after 2nd Lieutenant Peyton C. March, Jr., the deceased son of then-Army Chief of Staff General Peyton C. March. Approximately 1 month after Alessandro Field was opened, Lieutenant March was killed in an air crash in Texas just 15 days after being commissioned, and March Field was renamed in his honor (March Field Air Museum 2011).

March Field served as a base for primary flight training with an 8-week course that could accommodate a maximum of 300 students per course. With the end of World War I in November 1918, the future operational status of March Field was, for a short time, undetermined. While initial demobilization began after World War I, March Field remained an active Army Air Service station, and then as a U.S. Army Air Corps installation throughout the interwar period. However, with the United States' entrance in World War II, March Field quickly became a major installation of the U.S. Army Air Forces, training air units for action in the Pacific theater. Following the end of World War II (1945) and the establishment of the U.S. Air Force in 1947, March Field was renamed March Air Force Base. Throughout the Cold War, March Air Force Base was a key installation of the Strategic Air Command, and in 1996, it was transferred to the Air Force Reserve Command and utilized as a base for the Air Force Reserve and the California Air National Guard (March Field Air Museum 2011).

After World War II, Riverside diversified its economy, developing a significant manufacturing sector. Largely light industry, the manufacturing sector generates a range of products, including aircraft components, automotive parts, gas cylinders, electronic equipment, food products, and medical devices. As the county seat and largest city in the region, Riverside also houses numerous legal, accounting, brokerage, architectural, engineering, and technology firms, as well as banking institutions (Grimes and Chiang 2009; HRG 2013).

In 1953, the *Press Enterprise* reported that Riverside was 14th among the fastest growing cities in the western United States. The City of Riverside, which had not expanded since its original limits were established in 1883, began annexing new areas to the city in 1954. Though a portion of the Northside neighborhood was part of the

original Riverside city limits, another portion of the Northside was annexed in 1960. The development of Riverside in the mid-twentieth century followed the same suburban sprawl pattern as most of California:

As the dependence on agriculture lessened and population pressures increased, the groves and fields that dotted Riverside gave way to urban expansion, as it did elsewhere in Southern California. Unlike the piecemeal sale of vacant lots seen in earlier decades, post-war development was characterized by the appearance of uniformly constructed tract homes along curving streets and cul-de-sacs and was supported by loans guaranteed by the Federal Housing Administration (Grimes and Chiang 2009:9).

In 1947, a group of citrus growers and Riverside community organizers lobbied the University of California (UC) Regents to establish a liberal arts college at the UC Citrus Experimentation Station. As a result, University of California Riverside campus opened in 1954 and was added to the UC system in 1959. The neighborhood surrounding UC Riverside was annexed just a few years later in 1961 (Grimes and Chiang 2009).

New highway development also marked the post-war years. Prior to World War II, U.S. Route 395 and State Routes (SR-) 60 and 18 were the only highways through Riverside. In 1957, U.S. 395 was part of an interstate improvement project and became Interstate 215, and the Riverside Freeway (CA Route 91) was added in 1961 connecting Riverside and Gardena. The Pomona Freeway (CA Route 60) was also improved into a 4–6 lane highway, also opening in 1961 (Grimes and Chiang 2009).

Riverside's interconnectivity of both rail and highway, coupled with inexpensive real estate, also attracted more manufacturing industries to Riverside after World War II. Examples of such post-war industries were the Loma Linda Food Company, Food Machinery Corporation, Hunter-Douglas Corporation, Rohr Aircraft Company, Bourns Incorporated, and Lily-Tulip Cup Corporation. These included electronic and aerospace industries as well as industrial agribusiness and food shipping (Grimes and Chiang 2009).

In recent years, Riverside has given much attention to diversifying its economy beyond the citrus industry, creating a sustainable community encompassing an area of nearly 7,200 square miles and boasting a population of 1.3 million people (2010 Census). Despite changes in the regional economic focus and the general shifts in social movements in California over the last decade, Riverside has consistently been one of the, if not the, fastest growing areas in the country (Grimes and Chiang 2009).

### ***Northside Neighborhood***

The Northside Neighborhood in the City of Riverside (City) is a neighborhood distinguished from its adjacent neighborhoods by its unique character and development history. Located just northeast of downtown, Northside is bounded on the west by the Santa Ana River and on the east by the Hunter Industrial Park. While discrepancies exist regarding the boundaries of Northside, official City maps indicate that the southern and eastern boundaries are the modern freeways of SR-60 and SR-91, respectively. The two large green spaces located in the center of the neighborhood, Riverside Golf Course and Reid Park, provide significant recreational areas for the neighborhood residents. An extensive historical context was developed for a portion of the Northside Neighborhood in 2005 (Mermilliod 2005), and is adapted below for the Northside Neighborhood historic context report section, with minor additions from more recent historical contexts.

As discussed above, the first settlements in the Northside Neighborhood were by *genízaro* colonists from Abiquiú, New Mexico in the loose, unincorporated community of San Salvador, while settlement in the Riverside area was encouraged by the completion of the transcontinental railroad to San Francisco in 1869 and by the development of the thriving citrus industry. After the flood of 1862, and subsequent droughts, the farming villages of San Salvador and Agua Mansa, located adjacent to the Santa Ana River and north of the former Jurupa Ranch, re-established and grew by 1870 due to their development of dairy and citriculture. This agricultural focus supported the early adoption of a successful irrigation system, using the Santa Ana River as the water source, which propelled Riverside to the forefront of the citrus industry in California. Assisted by Chinese, and possibly Cahuilla, laborers, a 19-mile long canal was constructed during the 1870s and 1880s on the south side of the Santa Ana River in San Bernardino County to the Home Gardens in the Temescal Wash in Riverside County (Mermilliod 2005).

The irrigation system was integral in the success of Riverside’s early settlers. While the citrus industry was the most successful in the region, Riverside had an agro-economy that included other fruits and vegetables, as well as livestock ranches and dairy farms. It was the “Orange Fever,” however, that drew people to the area and created a multimillion-dollar industry in this area of Southern California, creating a upper class of orchard owners, and an expanding, low-wage workforce of Mexican, Chinese, and Japanese immigrants. The Northside Neighborhood was home to some of these productive orange groves, which were historically located east of Main Street, clustering around La Cadena Drive and Orange Street in the eastern portion of the SPA. The residents of Northside were active in the early agro-economy of Riverside. At least three egg ranches were known to exist within the Northside Neighborhood—on Columbia Avenue, Chase Street, and North Main Street—and many residents supplemented their income through small-farmed crops that could be loaded onto a truck and sold to their neighbors (Mermilliod 2005).

Riverside experienced many changes in the first two decades of the twentieth century. Neighborhoods like Northside developed into compact, modest-scaled streets (Mermilliod 2005). As discussed in previous sections, population during this period increased, and urban infrastructure and facilities such as water, electrical power, and transportation were enhanced. The citrus industry continued, aided by mechanization developed by local inventors, and two institutions were established: the University of California Citrus Experimentation Center and Alessandro Flying Field (now called March Air Reserve Base, see previous discussion). The City itself also began to develop a municipal identity with its adoption of a new charter in 1907 and the initial development of civic buildings.

Recreation during this period was still very important to Northside. The hot springs developed in the late nineteenth century were still a popular attraction. In 1915, the Riverside County Fair was relocated to Northside. This popular event continued until 1926 and offered numerous attractions including art shows and horse racing. Similar to the hot springs, the fairgrounds also hosted Hollywood elites, with stars such as Will Rogers filming on the site (Mermilliod 2005).

In 1917, towards the end of the Early Development period, Northside opened its first elementary school, Fremont Elementary School, located at 1925 Orange Street. Much of the original property was destroyed in a fire in 1949. The surviving building from that fire was demolished in 1967. The property was re-built and continues as Fremont Elementary School, although none of the original structures remain on the parcel (Mermilliod 2005).

Northside continued to expand after World War I, benefitting from the 1,440,000 new residents who settled in Southern California during the 1920s (Mermilliod 2005). The development of small- to large-scale farms in Northside reflected the diversification of the agricultural industry. Much of the land in Northside was subdivided for new homes. The public recreation buildings that had been a feature of the Northside Neighborhood continued to be popular during this period. The City of Riverside also continued to build additional municipal buildings elsewhere in the City (Grimes and Chiang 2009).

As in much of Southern California, the end of World War II ushered in an era of increased manufacturing. Along with this shift from an agro-dominated economy came land use changes and an urban landscape similar to what is seen today. The City of Riverside became home to well-known industrial companies and population continued to increase, creating the need for additional housing and City services. Increases in these sectors prompted the development of the freeway system that is present today bordering the Northside Neighborhood. City services grew in response to the population increase. In 1956, Northside built its first firehouse, Fire Station No. 6, on Main Street to service the local community. Recreation continued to be important for the Northside neighborhood during this period. Two new facilities were constructed: the Spring Brook Golf Course and Reid Park. The golf course was a community course open to general Riverside residents. Spring Brook is still in operation today. In 1964, a group of Northside residents developed a community park at Orange and Chase Road known as Reid Park. The ball field associated with the park was the first of its kind in Northside to serve the youth leagues. Reid Park was and remains home to the Northside Improvement Association, the oldest operating community organization in Riverside (Mermilliod 2005).

### ***Residential/Community Development***

Residential development in Northside coincided with the migration boom of the 1880s. As residential tracts began to expand within the City of Riverside, Northside was considered ideal for agricultural production and grove house construction. The early homes in Northside would have reflected citrus-related buildings and features associated with small-scale agriculture. The earliest period of residential development in Northside consisted of Victorian-era styles including, Gothic Revival, Queen Anne, Shingle, and Folk Victorian (Mermilliod 2005).

Early in the development of Northside, residents had access to a variety of recreational spaces. The most significant of these was a natural hot water springs located at 3723-25 Strong Street, near to Main Street. This hot springs' significance dates to before the development of Riverside, when the area was home to Native Americans from the Cahuilla and Gabrielinos tribes. Recognized for its healing properties, the hot spring was purchase by William Elliot in 1886 and developed into a plunge and swimming bath housed in a 40-foot by 60-foot glass-roofed building. There was strong community support for development of this facility likely due to limited domestic bathing at the time (Mermilliod 2005). The facility even became a draw for Hollywood elites such as Buster Keaton and Houdini, the latter performing a magic act there in 1919. The facility was renovated and changed owners and names over the years, with a last known designation of White Sulphur Spring. In 1989, the structure was designated a City Structure of Merit and by 2006 was slated for demolition.

While much of the early development in Riverside centered around the City core, the sharp rise in population in the twentieth century prompted development in the surrounding areas and triggered creation of single and multifamily development and the subdivision of lots in Northside (Mermilliod 2005). The majority of architectural examples from this time period are modest single-family dwellings constructed between 1903 and 1918. Styles include Craftsman, Colonial Revival, Classic Revival, and Prairie.

The diversification of the agricultural and commercial industry along with the population boom forced further development in Northside. During this time, the Northside community consisted of a broad swath of the public, including both blue and white-collar workers. A trend developed towards dividing the extensive grove and agricultural properties that defined the neighborhood only a few decades earlier. While architectural trends elsewhere in the City reflected the Eclectic Period, during which architects were inspired by a wide variety of styles from around the world, Northside homes continued to be represented by modest Craftsman style homes (Mermilliod 2005). Multifamily housing also spread during this time.

The continued development of Northside followed the state trends of additional single and multifamily housing at the expense of groves and agriculture fields. Much of the housing land in Northside, and Riverside more generally, saw new tract housing development that defines suburban living today (Mermilliod 2005). This new type of housing tract development, rather than individual lot sales, defines the identity of suburbs within California. Houses in the individual tracts were typically created in the same styles, which included Minimal Traditionalist, Post-WWI Vernacular, and California Ranch.

### ***Commercial Development***

In 1913, a deep freeze weather event threatened the dominance of the citrus industry in Riverside and sparked the diversification of commercial interests (Mermilliod 2005). Much of the commercial development during this period occurred along Main Street in Riverside, south of SR-60. This area continued to develop throughout the twentieth century into an almost exclusive industrial area. A South Pacific Company railroad line once crossed this area near Main and First Street. This area was also home to a substation, a lumber yard, a railroad freight house, and bunkhouses, and the area near to the old railroad right-of-way was developed with light industrial, commercial, and storage buildings (Mermilliod 2005).

Commercial and industrial development expanded during this period of diversification and population boom between the two world wars. Many areas in Northside saw neighborhood shops alongside industrial centers. The majority of these commercial districts were associated with travel corridors that connected Northside to the rest of Riverside, particularly along Main Street. Motorist accommodations such as motels and roadside eateries were starting to pop up along these major travel arteries. Various gas stations and grocery stores were constructed to cater not only to passing motorists, but also to Northside residents. It was during this period that the Southern Sierras Power Company constructed an Industrial Center on Main Street. This impacted community evolution as it fostered a corporate culture that focused on employees as family, many of whom were Northside residents (Mermilliod 2005; Grimes and Chiang 2009).

As the development of commercial enterprises grew in Riverside, Main Street in the Northside neighborhood became a hub of commercial activity. It also remained a thoroughfare for motorists, though the development of the freeway system reduced local traffic. These freeways and the development of the large-scale industrial and manufacturing buildings as well as the previously developed educational facilities made Riverside and the Northside Neighborhood a desirable location for settlers looking for new opportunities (Mermilliod 2005).

### ***Trujillo Adobe***

The Trujillo Adobe is situated on a parcel of land that straddles the boundary between the City of Riverside and the City of Colton. As discussed above in Section 3.4.1., Mexican Period (1821–1846), the Trujillos were the founding family of the original La Placita settlement and held a position of authority there for many years. In 1862, a flood nearly destroyed the village of La Placita. A few years later in 1864, the Trujillo family built an adobe home at the southern limits of the settlement. By the early twentieth century, many of the residents of La Placita had moved south to North Orange Street within the Northside Neighborhood in Riverside. However, generations of the Trujillo family continued to occupy the Trujillo Adobe for a little over a century, until 1968 when it lay vacant. Although showing signs of extensive deterioration, the adobe is still extant at its original location, now enclosed within a protective shelter. The Trujillo Adobe is designated a Riverside County Point of Historical Interest (No. RIV-009), a County Landmark, and a City Landmark (No. 130). Other associated Trujillo buildings no longer extant is the purported Trujillo Cantina, built in front of the adobe (operational until the 1930s), and the Trujillo School, sited east of the adobe (closed in 1926) (Mermilliod 2005).

### *City of Colton Historical Overview*

The land comprising modern-day Colton was originally part of the 35,509-acre Mexican land grant forming Rancho San Bernardino, granted in 1842 by Governor Juan B. Alvarado to José del Carmen Lugo, José Maria Lugo, Vicente Lugo, and Diego Sepulveda (Hoffman 1862). Not long afterwards, the Lugos encouraged the same *genízaro* colonists from Abiquiú, New Mexico to settle on their rancho in hopes of deterring cattle theft by other raiding Native American tribes. The group eventually established agriculturally focused villages in neighboring Rancho Jurupa including La Politana, Aqua Mansa, and La Placita. Descendants of the latter two villages form the core of the modern-day Northside neighborhood. In 1851, after the Treaty of Guadalupe Hidalgo, the Lugos sold eight square leagues of the Rancho to a group of nearly 500 Mormons, led by the apostles Amasa M. Lyman and Charles C. Rich. However, the rancho land wasn't patented by the Public Lands Commission to the Lugos until 1865, during which time debates over property boundaries occurred. The Mormons were recalled back to Utah in 1858, which helped resolve some of the land disputes (Brown and Boyd 1922; Willey 1886).

Southern Pacific Railroad formed the townsite of Colton in 1875, naming it after the railroad's Vice President David R. Colton. The townsite was laid out along San Bernardino Street (now La Cadena Drive), but for the first 30 years residential development focused on the north side of the townsite, along F, G, and H Streets. It wasn't until the early twentieth century that affluent housing became centered on San Bernardino Street (City of Colton 2000). The rapid growth of railroads in the late nineteenth century, combined with the prime shipping location of the area in and around Colton, eventually led to one of the most infamous frog wars in railroad construction history at the site of Colton Crossing during the summer of 1883. The California Southern Railroad sought to cross at-grade the existing Southern Pacific Railroad tracks. Obtaining a court order on August 11, 1883, allowing California Southern to legally install the new track section across the existing Southern Pacific track, the stage was set for a showdown. Southern Pacific hired Virgil Earp to guard their tracks, which he did from a one-cab locomotive slowly moving back and forth along the track at that location. California Southern responded by alerting California Governor Robert Waterman, who then ordered San Bernardino County Sheriff J.B. Burkhart to enforce the court order. With Colton residents on the south side of the tracks and San Bernardino residents lined up along the north side of the tracks, Waterman read the court order out loud and demanded the locomotive be moved off immediately. To avoid imminent bloodshed, Earp ordered the engineer to move the locomotive (Paul and Carlisle 2006). A few years later in 1887, California Southern (part of the Atchison, Topeka, and Santa Fe Railroad) completed its line from Los Angeles to San Bernardino. The crossing of two transcontinental railroads in Colton meant that the city quickly grew into a major shipping hub. In the years following the founding of Colton, the largely Protestant settlement became a nexus of commercial activity, centered on railroads; the growing, processing, and shipping of citrus crops; limestone and marble extraction; and cement manufacturing. In 1887, the same year that the line from Los Angeles to San Bernardino was completed, the City of Colton incorporated and elected Virgil Earp as its first marshal (City of Colton 2000, 2017).

The primary industry of the Inland Empire was citrus production. Due to being a transportation nexus, Colton developed into a citrus processing and shipping center. In the 1870s, Colton fruit growers would sort and pack the fruit out in the groves, then transport the packaged fruit by wagon to the Southern Pacific train depot where it was then shipped to San Francisco and Los Angeles. The following decade, sorting and packing moved from the groves into centralized processing plants. The growers associated with the processing plants eventually formed into two Fruit Exchanges: the Colton Fruit Growers Association and the Colton Fruit Exchange, which was affiliated with the California Fruit Growers Exchange (now Sunkist). The first packing plant in Colton was built near the Southern Pacific train depot in 1881 by the San Jose Packing Company, and by 1902 there were three such plants operating near the California Southern train depot on the east side of town. However, this focus began shifting to the west side in the late nineteenth century due to the California Southern finally extending its track into Colton. This track

connected the town and the citrus growers to the Central Pacific and Union Pacific transcontinental line, thereby granting access to eastern markets. Citrus processing in Colton reached its peak in the early 1930s, with one packing plant shipping around 485 carloads of fruit a year. Around this time, citrus growers began subdividing their groves in order to pursue other commercial development. This led to a rapid decline in the fruit processing industry in Colton, and in 1936 the Exchange Packing Plant permanently closed its packinghouse, signaling “the end of the fruit-processing era in Colton” (City of Colton 2000).

The location of the Southern Pacific railroad tracks also strongly influenced settlement patterns in Colton. The train depot was located on the north side of the tracks, which drew commercial and more affluent residential development northwards as it facilitated easy access to the depot. Parked trains would often block access to the area south of the railroad tracks for hours on end, making that side of the tracks less desirable for economic and affluent residential development. Thus, the south side of Colton shifted from being a mix of Anglo and Hispanic residents to almost exclusively Hispanic in the 1910s, thanks in part to a large influx of immigrants who were fleeing the Mexican Revolution. Unlike their more affluent neighbors to the north, most men in south Colton worked as laborers, particularly at the Colton Cement Plant. Ethnic tensions between Anglo “northerners” and Hispanic “southerners” continued to grow during the first half of the twentieth century. However, the return of Hispanic World War II veterans to the area in the 1940s served to dilute some of the tensions, as the veterans “were less willing to observe racial boundaries” (City of Colton 2000).

### ***Pellissier Ranch***

When Riverside County was established in 1893, the existing settlement of La Placita was divided between the new County and existing San Bernardino County. New churches and schools were built to serve the two portions of the divided community, with the historically dominant Trujillo family maintaining their hold on the south portion. Leadership of the north portion fell to David Santiago Garcia, Sr., who was the preeminent land holder at the time, having purchased the lands of several settlers who moved away before the 1890s. Garcia and his family lived in a wood-framed house on North Orange Street, in close proximity to the Trujillo adobe, while he engaged in dry-farming and raising cattle (Harley 2003). Anton Pellissier immigrated to the United States from France in 1888. By 1920, he and his family also were living on North Orange Street in north La Placita. Pellissier ran a dairy and vineyard, located north of the Trujillo adobe. He eventually expanded his dairy and vineyard businesses by purchasing property in the area, including the Garcia farmstead, and establishing a large ranch that operated until World War II (Harley 1996, 2003).

### **CHRIS Record Search Results**

#### ***Previously Conducted Cultural Resource Studies within the SPA***

The records search results indicate that 196 cultural resource investigations have been conducted within the 1-mile search radius of the SPA between 1973 and 2015. Of these, 51 studies are mapped as overlapping at least a portion of the project area. Nine of these reports (SB-00273, SB-00274, SB-00275, SB-00447, SB-00492, SB-01499, SB-01837, SB-02010, and SB-02963) are considered regional overview studies that do not specifically address the SPA. Moreover, only two of the studies within the SPA (RI-08961 and RI-09739) are considered recent (conducted within the last 5 years). Both studies consisted of small (less than 5 acres) Phase I investigations. Neither study resulted in the identification of cultural resources. Details pertaining to investigations that overlap the SPA are listed below in Table 3.4-1.

Two studies that were not captured in the California Historical Resources Information System (CHRIS) records search are important to note. The majority of this study's Northside Neighborhood historic context is drawn from the Reconnaissance Survey and Context Statement for a Portion of the Northside (Mermilliod 2005). The Pellissier Ranch portion of the SPA was intensively studied in 2014. Information regarding cultural resources within this part of the specific plan was derived from Cultural Resources Technical Report: Pellissier Ranch Solar Photovoltaic Project EIR (HDR Engineering 2014). A brief summary of these studies follows Table 3.4-1.

**Table 3.4-1. Previously Conducted Cultural Resource Studies Within the SPA**

Report Number	Authors	Date	Title	Proximity
<i>Riverside County Studies</i>				
RI-02307	Hampson, P. et al.	1988	Cultural Resources Survey, Upper Santa Ana River, California	Within
RI-03383	Padon, B.	1991	Historic Property Clearance Report for the Proposed Acquisition of Two Parcels in Southeast and Southwest Quadrants of Route 60/91/215 Interchange; Supplement to October 11, 1991, Historic Property Clearance Report	Within
RI-03580	Love, B. et al.	2000	Historical/Archaeological Resources Survey Report: Tentative Tract No. 30028, City of Riverside, Riverside County, California	Within
RI-03605	Wlodarski, R.	1993	Draft Report: An Archaeological Survey Report Documenting the Effects of the RCIC I-215 Improvement Project in Moreno Valley, Riverside County to Orange Show Road in the City of San Bernardino, San Bernardino County, California	Within
RI-04212	Love, B. and B. Tang	1999	Cultural Resources Report: Significance Evaluation of Two Historic Archaeological Sites, First and Market Streets, City of Riverside, Riverside County, California	Within
RI-04227	Love, B. and B. Tang	1998	Cultural Resources Report: Tentative Tract Map No. 29097, City of Riverside, Riverside County, California	Within
RI-04228	Love, B. and B. Tang	1999	Cultural Resources Report: Tentative Tract 29219, City of Riverside, Riverside County, California	Within
RI-04230	Love, B. and B. Tang	1999	Historical/Archaeological Resources Survey Report: Tract Map 28453, 3330 Center Street, City of Riverside, Riverside County, California	Within
RI-04374	Padon, B.	2000	Letter Report: Cultural Resources Survey for Carter Street Project within the City of Riverside	Within
RI-04379	Love, B., M. Dahdul, and M. Hogan	2000	Identification and Evaluation of Historic Properties AT&T Wireless Site PB 2002-032 Community of Highgrove Riverside County, California	Within
RI-04430	Jones & Stokes Associates, Inc.	2000	Cultural Resources Inventory Report for Williams Communications, Inc. Fiber Optic Cable System Installation Project, Riverside, CA to the CA/AZ Border, Riverside, San Bernardino, & Imperial Counties, CA	Within
RI-04431	Jones & Stokes Associates, Inc.	1999	Cultural Resources Inventory Report for Williams Communications, Inc. Proposed Fiber Optic Cable System Installation Project, Los Angeles to Riverside, Los Angeles & Riverside Counties, CA	Within

Table 3.4-1. Previously Conducted Cultural Resource Studies Within the SPA

Report Number	Authors	Date	Title	Proximity
RI-04486	Alexandrowicz, S.	2001	An Identification Investigation of Historical Resources and Soils for the Center Street Extension Project, the City of Riverside, Riverside County, the City of Colton, San Bernardino County, California	Within
RI-05033	McKenna, J.	2005	A Phase I Cultural Resources Investigation for the Proposed Riverside Unified School District (RUSD) Beatty Elementary School Site in the City of Riverside, Riverside County, California	Within
RI-05240	Marvin, J. and S. Younger	2005	Cultural Resource Assessment, the Strong Street Homes Project, City of Riverside, Riverside County, CA	Within
RI-05623	Drover, C.	2002	An Archaeological Impact Assessment of Landmark Business Park Phase II, Market Street and State Highway 60, Riverside, CA	Within
RI-05748	Doan, U., M. Hogan, and B. Tang	2003	Archaeological Sensitivity Assessment: Hunter Park Redevelopment Plan Amendment, City of Riverside, Riverside County, CA	Within
RI-05780	Dahdul, M., J. Smallwood, and D. Ballester	2002	Archaeological Testing and Mitigation Report, Center Street Extension Project, In and Near the City of Riverside, Riverside County, CA	Within
RI-05893	Tang, B. et al.	2002	Historical/Archaeological Resources Survey Report, Market Street Widening Project, City of Riverside, Riverside County, CA	Within
RI-05993	Tibbet, C. and J. Smallwood	2003	Historical/Archaeological Resources Survey Report, Tentative Tract Map No. 30907, City of Riverside, Riverside County, CA	Within
RI-06237	Tang, B. et al.	2004	Historical/Archaeological Resources Survey Report, Assessor Parcel Numbers 246-020-007 and -12, in the City of Riverside, Riverside County, California	Within
RI-06425	Tang, B. et al.	2005	Historical/Archaeological Resource Survey Report, Assessor's Parcel No. 206-152-004, City of Riverside, Riverside County, CA	Within
RI-06475	Tang, B. et al.	2005	Historical/Archaeological Resources Survey Report, Assessor's Parcel Number 246-260-004, 4320 Alamo Street, City of Riverside, Riverside County, CA	Within
RI-06476	Tang, B. et al.	2005	Historical/Archaeological Resources Survey Report, Tentative Tract Map 33506, 3184, 3224, and 3262 Chase Road, City of Riverside, Riverside County, CA	Within
RI-06601	Tang, B., M. Hogan, and D. Encarnacion	2006	Identification and Evaluation of Historic Properties, Fairmont, Reid, and La Sierra Parks Improvement Project, City of Riverside, Riverside County, California	Within
RI-06839	Pierson, L.	2007	An Archaeological Survey of the Shilleh Home Property and a Historical Evaluation of the White Sulfur Springs Pool Facility, Riverside, California, SITE P-37-14953	Within

Table 3.4-1. Previously Conducted Cultural Resource Studies Within the SPA

Report Number	Authors	Date	Title	Proximity
RI-07255	Goodwin, R. and R. Reynolds	2002	Cultural Resources Assessment: La Riviera Tract 23328, City of Riverside, Riverside County, California	Within
RI-08441	Billat, L.	2010	Collocation (“CO”) Submission Packet, FCC FORM 621, AT&T Colo La Cadena, LA5312A	Within
RI-08961	Maxon, P.	2012	Phase I Cultural Resources Assessment, La Rivera Development-Surface Drainage Improvement Project, Riverside, California	Within
RI-09739	Puckett, H.	2014	Cultural Resources Summary for the Proposed Verizon Wireless, Inc., Property, Fairmount Park, 4011 Fairgrounds Street, Riverside County, CA 92501	Within
<b>San Bernardino County Studies</b>				
SB-00273	Leonard III, N.	1975	Santa Ana River Project, Description and Evaluation of Cultural Resources and Appendices: Field Data	General Overview
SB-00274	Rosenthal, J.	1979	A Cultural Resource Survey of the Proposed Santa Ana River Hiking/Biking Trail in the Prado Flood Control Basin	General Overview
SB-00275	Tobey, R., T. Suss, and L. Burgess	1977	Historical Resource Survey, Prado Flood Control Basin, San Bernardino and Riverside Counties, California	General Overview
SB-00447	Scott, M.	1976	Development of Water Facilities in the Santa Ana River Basin, California, 1810-1968	General Overview
SB-00492	Simpson, R., L. Brown, and J. Hearn	1977	Archaeological-Historical Resources Assessment of Proposed Bloomington Wastewater Facilities Plan	General Overview
SB-00711	Chavez, D.	1978	Cultural Resources Evaluation of the Rialto Tank Farm Location and Associated Pipeline and Pump Station Locations, San Bernardino County, California	Within
SB-00712	Chavez, D.	1978	Cultural Resources Evaluation of the Four Corners Pipeline Interconnect Facilities, San Bernardino and Riverside Counties, California	Within
SB-00713	Chavez, D.	1978	Final: Cultural Resources Evaluation for the Naval Petroleum Reserve No. 1 (Elk Hills) to Rialto Crude Oil Pipeline	Within
SB-00714	Chavez, D.	1978	Final: Cultural Resources Evaluation for the Rialto Crude Oil Tank Farm to the Four Corners Pipeline, Kern County, California	Within
SB-01499	Foster, J. and R. Greenwood	1985	Cultural Resources Overview: California Portion, Proposed Pacific Texas Pipeline Project	General Overview
SB-01837	Goldberg, S. and J. Arnold	1988	Prehistoric Sites in the Prado Basin, California: Regional Context and Significance Evaluation	General Overview
SB-01951	Hatheway, R. and K. Swope	1989	Archaeological and Historical Survey Report for the Proposed Angelus Block Property	Within
SB-02010	Harley, B.	1988	Rev. Juan Caballeria: Historian or Storyteller?: Rethinking the 1810 Dumetz Expedition	General Overview
SB-02307	Dorn, R. and D. Whitley	1984	Chronometric and Relative Age Determination of Petroglyphs in the Western United States	Within

Table 3.4-1. Previously Conducted Cultural Resource Studies Within the SPA

Report Number	Authors	Date	Title	Proximity
SB-02853	Foster, J. et al.	1991	Cultural Resource Investigation: Inland Feeder Project, MWD of Southern CA	Within
SB-02963	Haenszel, A.	1992	Mormons in San Bernardino	General Overview
SB-03927	Alexandrowicz, S.	2001	An Identification Investigation of Historical Resources & Soils for the Center Street Extension Project, City of Riverside, Riverside County & City of Colton, San Bernardino County, CA	Within
SB-04201	Love, B. and B. Tang	1999	Assessor's Parcel No. 246-101-001, at the Intersection of Center Street and Orange Street, City of Riverside, CA	Within
SB-05264	Bonner, W. and M. Aislin-Kay	2006	Cultural Resources Records Search and Site Visit Results for Cingular Telecommunications Facility Candidate ES-0067-01 (Key Street/Riverside Avenue), 2090 West Key Street, Colton, San Bernardino County, California	Within
SB-06084	Dietler, J. and R. Ramirez	2008	Cultural Resources Inventory for the Pellissier Ranch Specific Plan Project, City of Colton, San Bernardino County, California	Within
SB-06516	Ashkar, S.	1999	Cultural Resource Inventory Report for Williams Communications, Inc., Proposed Fiber Optic System Installation Project, Los Angeles to Riverside, Los Angeles, Riverside and San Bernardino Counties	Within

### *Mermilliod 2005*

In 2005, the City of Riverside Planning Department contracted with JM Research and Consulting to conduct a cultural resources study within Northside. The study consisted of an extensive reconnaissance survey within a portion of Northside and the preparation of a comprehensive historic context statement for the neighborhood. The purpose of the project was to identify, document, and evaluate potential historic districts and individually significant properties for eligibility for listing in the National Register of Historic Places (NRHP), the California Register of Historical Resources (CRHR), and under the City of Riverside's Cultural Resources Ordinance, Title 20 (Mermilliod 2005). The survey area included roughly 2 square miles just north of the City's downtown area. The survey overlapped the current SPA south of SR-60 designated as Potential Area A North Main Street and a smaller portion of the current SPA north of SR-60 from Fairmount Boulevard to the west, Strong Street to the north, and I-215 to the east.

The study resulted in the identification of 156 properties that appear eligible for inclusion as contributors within three potential districts. In addition to the 3 historic districts, 11 properties appear individually eligible for designation, and 16 properties were recommended for further study (Mermilliod 2005). While the historic districts are in close proximity to the current study, none overlaps the current SPA. Of the 11 properties that were determined eligible for individual designation, 5 are within the current SPA. Of these, one property (3720 Stoddard Avenue) was determined eligible for local designation as a City Landmark; and four properties were determined eligible for local designation as City Structures of Merit (3668 Poplar Avenue, 3787 Shamrock Avenue, 3676 Strong Street, and 2357 Wilshire Street) (Mermilliod 2005).

### ***HDR Engineering 2014***

In 2014, the City of Riverside Public Utilities Department proposed to develop a solar power facility on Pellissier Ranch located within the jurisdictional boundary of the City of Colton. HDR Inc. conducted the Phase I cultural resources study in support of the proposed project. The area of potential effect (APE) included the 227-acre Pellissier Ranch site and a 14.9-acre off-site interconnection that ran south down Orange Street from the Pellissier Parcel, east along Chase Street to West La Cadena Drive in the City of Riverside (HDR Engineering 2014). The APE was entirely within the current proposed Northside SPA, encompassing the entire Pellissier Ranch portion of the current SPA.

The records search returned 18 known cultural resources within the APE. These sites consisted of two prehistoric bedrock milling features (P-36-19814 and P-36-19820); three historic-age farmstead/homestead ruins (P-36-19808, P-36-19809, and P-36-19815); a historic-age refuse scatter (P-36-06086); two historic-age isolated artifacts (P-36-60235 and P-36-60252); six water conveyance or water storage features including the Upper and Lower Riverside Canal (P-33-04495 and P-36-07172), the Highgrove Channel (P-36-19818), and wells and irrigation systems of Pellissier Ranch (P-36-19810, P-36-19817, and P-36-19821); and four historic-period single-family properties (P-33-06966, P-33-14884, P-33-14885, and P-33-14886) (HDR Engineering 2014).

The field survey relocated all but two of the previously recorded resources, both isolates, and identified two new sites. The newly recorded cultural resources consisted of a historic-age earthen ditch and mason-lined culvert, temporarily designated the “Orange Street Culvert,” and an isolated historic-age bottle (HDR Engineering 2014).

Of the 20 cultural resources located within the APE, 1 site, the Upper Riverside Canal (P-33-04495), was previously recommended eligible for the NRHP; 15 sites were previously recommended as not eligible for the CRHR or local designation (P-36-06086, P-36-07172, P-36-19808, P-36-19809, P-36-19810, P-36-19815, P-36-19817, P-36-19818, P-36-19821, P-36-60235, P-36-60252, P-33-06966, P-33-14884, P-33-14885, and P-33-14886). The two prehistoric bedrock milling features (P-36-19814 and P-36-19820) and the newly identified Orange Street Culvert were not formally evaluated at the time of the study (HDR Engineering 2014). Brian F. Smith and Associates has since evaluated the bedrock milling features and recommended the sites as not eligible for the CRHR. The newly identified historic-age isolated artifact was not eligible for listing.

Portions of the APE were considered sensitive for archaeological material. As noted in the study, the areas along the Santa Ana River and at the base of the La Loma Hills were used heavily by Native Americans and may contain buried prehistoric cultural material. Additionally, historic flood events demolished the historic-age settlement that was located on the property. There is a possibility that intact archaeological deposits related to the settlement are buried beneath the flood-borne sediment (HDR Engineering 2014). Management recommendations included avoidance or evaluation of the prehistoric sites and the newly identified canal and archaeological monitoring during ground-disturbing activities within 20 meters of the farmstead/homestead ruins (P-36-19808, P-36-19809, and P-36-19815).

### **Previously Recorded Cultural Resources within the SPA**

There are a total of 343 previously recorded cultural resources within 1 mile of the Northside SPA. Table 3.4-2 provides the details of all previously recorded resources within 1 mile of the SPA. These resources include 24 prehistoric archaeological sites consisting of varied site types, such as bedrock milling surfaces, artifact scatters, and rock art of various forms; 20 historic archaeological sites, including the early settlement of Agua Mansa; 178 historic-age built environment resources, including such notable resources as Fairmount Park and John W. North Park; and 16 resources with no information, but that are presumed built environment resources.

Of these 343 resources, 101 are located within the SPA. The resources within the SPA include 17 archaeological resources, of which 3 are prehistoric archaeological sites, 1 is a multi-component resource with both prehistoric and historic components, 12 are historic archaeological sites, and 1 is a historic archaeological isolated artifact. The remaining 83 resources are historic-age built environment resources. The single multicomponent site within the SPA rests on the county line. Because of this, the information centers each assigned the resource a primary number that correlates with their county. As a result, P-33-08752/CA-RIV-06237 from Riverside County is the same site as P-36-09814/CA-SBR-09841 from San Bernardino County and will be discussed in this report as P-33-08752/P-36-09814.

**Table 3.4-2. Previously Recorded Cultural Resources Within the SPA**

Primary Number	Trinomial (CA-)	Period	NRHP/CRHR Status*	Recorded Year/By	Description	Proximity
<i>Sites Within Riverside County</i>						
33-001984	RIV-01984	Historic Structure	California Point of Historical Interest and County Landmark; City Landmark  3S (appears eligible for NRHP as an individual property through survey evaluation)	2018 Howell-Ardila 1982 T. Newman; 1980 J. Oxedine; 1968 unknown	Historic: Trujillo Adobe	Subarea 16
33-004299	RIV-04299	Historic	Unknown	1991 P. Jertberg	Historic: Building foundations	Subarea 11
33-004495	RIV-04495	Historic Structure	3 (appears eligible for the NRHP or CRHR)	2014 A. Gusick and K. Tennesen; 2009 D. Ballester; 1996 R. Starzak and M. Fitzgerald; 1992 R. Wlodarski and D. Larson; 1991 P. Jertberg	Water conveyance system: Upper Riverside Canal, Lower Riverside Canal	Subarea 10, 12
33-004787	RIV-04787	Historic Structure	5 (appears eligible for local listing)	1992 R. Wlodarski	Water conveyance system: Riverside-Warm Creek Canal	Subarea 10
33-004791	RIV-04791	Historic Structure	3 (appears eligible for the NRHP or CRHR)	2005 J. McKenna et al.; 2001 A. Gustafson and M. McGrath; 1992 R. Wlodarski	Water conveyance system: Lower Riverside Canal	Subarea 11, 12

Table 3.4-2. Previously Recorded Cultural Resources Within the SPA

Primary Number	Trinomial (CA-)	Period	NRHP/CRHR Status*	Recorded Year/By	Description	Proximity
33-005712	—	Historic Structure	6Y (not eligible for NRHP; not evaluated for CRHR)	1999 B. Tang	Building: Single-family property (early twentieth century)	Subarea13
33-006965	—	Historic Structure	7 (not evaluated)	1982 T. Newman	Building: Single-family property (c. 1916)	Subarea12
33-006966	—	Historic Structure	6 (not eligible)	2014 A. Gusick and K. Tennesen; 1982 T. Newman	Building: Single-family property (c. 1933)	Subarea12
33-006967	—	Historic Structure	7 (not evaluated)	1982 T. Newman	Building: Single-family property (c. 1900)	Subarea12
33-006968	—	Historic Structure	7 (not evaluated)	1982 T. Newman	Building: Single-family property (c.1905)	Subarea10
33-006969	—	Historic Structure	7 (not evaluated)	1982 T. Newman	Building: Single-family property (c. 1920)	Subarea 10
33-006970	—	Historic Structure	7 (not evaluated)	1982 T. Newman	Building: Single-family property (c. 1928)	Subarea 10
33-006971	—	Historic Structure	7 (not evaluated)	1982 T. Newman	Building: Single-family property (c. 1898)	Subarea 3
33-006973	—	Historic Structure	7 (not evaluated)	1982 T. Newman	Building: Single-family property (c. 1922)	Subarea 4
33-008650	RIV-06166	Historic	Unknown	1998 B. Love	Historic: Refuse scatter	Subarea 12
33-008651	RIV-06167	Historic	Unknown	1998 B. Love	Historic: Farmstead ruins	Subarea 12
33-008752 (same as 36-009814)	RIV-06237	Multi-component	7 (not evaluated)	1998 B. Love	Historic: Refuse scatter Prehistoric: Lithic and ceramic scatter	Subarea 16
33-008754	RIV-06238	Historic	6 (not eligible)	1999 B. Love	Railroad: Pacific Electric Railway maintenance barn ruins	Subarea 11
33-008755	RIV-06239	Historic	6 (not eligible)	1999 B. Love	Railroad: Pacific Electric Railway electrical transformer station ruins	Subarea 11
33-009006	RIV-06351	Historic	6 (not eligible)	1999 Tetra Tech	Historic: Refuse scatter	Subarea 7

Table 3.4-2. Previously Recorded Cultural Resources Within the SPA

Primary Number	Trinomial (CA-)	Period	NRHP/CRHR Status*	Recorded Year/By	Description	Proximity
33-009198	—	Historic Structure	6Y (not eligible for NRHP; not evaluated for CRHR)	1999 B. Tang	Building: Single-family property (c. 1923)	Subarea 11
33-009199	—	Historic Structure	6Y (not eligible for NRHP; not evaluated for CRHR)	1999 B. Tang	Building: Single-family property (c. 1923)	Subarea 11
33-009200	—	Historic Structure	6Y (not eligible for NRHP; not evaluated for CRHR)	1999 B. Tang	Building: Single-family property (c. 1923)	Subarea 11
33-010902	RIV-06595	Historic Structure	6 (not eligible)	2000 M. Hogan and M. Dahdul	Water conveyance system: Agricultural irrigation system	Subarea 12
33-011444	—	Historic Structure	6 (not eligible)	2000 B. Tang	Building: Single-family property (c. 1913)	Subarea 12
33-011538	—	Historic Structure	6 (not eligible)	1996 R. Starzak and M. Fitzgerald	Building: Multi-family property (c. 1927)	Subarea 10
33-011539	—	Historic Structure	3 (appears eligible for the NRHP or CRHR)	1996 R. Starzak and M. Fitzgerald	Building: Single-family property (c. 1913)	Subarea 12
33-012131	—	Historic Structure	6 (not eligible)	1995 D. Bricker	Building: Single-family property (c. 1925)	Subarea 12
33-012132	—	Historic Structure	6 (not eligible)	1995 D. Bricker	Building: Single-family property (c. 1941)	Subarea 12
33-012133	—	Historic Structure	6 (not eligible)	1995 D. Bricker	Building: Single-family property (c. 1937)	Subarea 12
33-012134	—	Historic Structure	6 (not eligible)	1995 D. Bricker	Building: Single-family property (c. 1926)	Subarea 12
33-012135	—	Historic Structure	3 (appears eligible for the NRHP or CRHR)	1995 D. Bricker	Building: Single-family property (c. 1923)	Subarea 12
33-012136	—	Historic Structure	6 (not eligible)	1995 D. Bricker	Building: Single-family property (c. 1925)	Subarea 12

Table 3.4-2. Previously Recorded Cultural Resources Within the SPA

Primary Number	Trinomial (CA-)	Period	NRHP/CRHR Status*	Recorded Year/By	Description	Proximity
33-012149	—	Historic Structure	6Y (not eligible for NRHP; not evaluated for CRHR)	1998 D. Bricker	Building: Single-family property (c. 1947)	Subarea 12
33-012150	—	Historic Structure	6Y (not eligible for NRHP; not evaluated for CRHR)	1998 D. Bricker	Building: Single-family property (c. 1947)	Subarea 12
33-012151	—	Historic Structure	6Y (not eligible for NRHP; not evaluated for CRHR)	1998 D. Bricker	Building: Single-family property (c. 1954)	Subarea 12
33-012152	—	Historic Structure	6Y (not eligible for NRHP; not evaluated for CRHR)	1998 D. Bricker	Building: Single-family property (c. 1946)	Subarea 12
33-012153	—	Historic Structure	6Y (not eligible for NRHP; not evaluated for CRHR)	1998 D. Bricker	Building: Single-family property (c. 1937)	Subarea 12
33-012154	—	Historic Structure	6Y (not eligible for NRHP; not evaluated for CRHR)	1998 D. Bricker	Building: Single-family property (c. 1954)	Subarea 12
33-012155	—	Historic Structure	6Y (not eligible for NRHP; not evaluated for CRHR)	1998 D. Bricker	Building: Single-family property (c. 1927)	Subarea 12
33-012156	—	Historic Structure	6Y (not eligible for NRHP; not evaluated for CRHR)	1998 D. Bricker	Building: Single-family property (c. 1925)	Subarea 12
33-012157	—	Historic Structure	6Y (not eligible for NRHP; not evaluated for CRHR)	1998 D. Bricker	Building: Single-family property (c. 1926)	Subarea 12

Table 3.4-2. Previously Recorded Cultural Resources Within the SPA

Primary Number	Trinomial (CA-)	Period	NRHP/CRHR Status*	Recorded Year/By	Description	Proximity
33-012158	—	Historic Structure	6Y (not eligible for NRHP; not evaluated for CRHR)	1998 D. Bricker	Building: Single-family property (c. 1927)	Subarea 12
33-012159	—	Historic Structure	6Y (not eligible for NRHP; not evaluated for CRHR)	1998 D. Bricker	Building: Single-family property (c. 1946)	Subarea 12
33-012160	—	Historic Structure	6Y (not eligible for NRHP; not evaluated for CRHR)	1998 D. Bricker	Building: Single-family property (c. 1926)	Subarea 12
33-012161	—	Historic Structure	6Y (not eligible for NRHP; not evaluated for CRHR)	1998 D. Bricker	Building: Single-family property (c. 1926)	Subarea 12
33-012162	—	Historic Structure	6Y (not eligible for NRHP; not evaluated for CRHR)	1998 D. Bricker	Building: Single-family property (c. 1928)	Subarea 12
33-012163	—	Historic Structure	6Y (not eligible for NRHP; not evaluated for CRHR)	1998 D. Bricker	Building: Single-family property (c. 1950)	Subarea 12
33-012164	—	Historic Structure	6Y (not eligible for NRHP; not evaluated for CRHR)	1998 D. Bricker	Building: Single-family property (c. 1927)	Subarea 12
33-012165	—	Historic Structure	6Y (not eligible for NRHP; not evaluated for CRHR)	1998 D. Bricker	Building: Single-family property (c. 1947)	Subarea 12
33-012166	—	Historic Structure	6Y (not eligible for NRHP; not evaluated for CRHR)	1998 D. Bricker	Building: Single-family property (c. 1946)	Subarea 12

Table 3.4-2. Previously Recorded Cultural Resources Within the SPA

Primary Number	Trinomial (CA-)	Period	NRHP/CRHR Status*	Recorded Year/By	Description	Proximity
33-012167	—	Historic Structure	6Y (not eligible for NRHP; not evaluated for CRHR)	1998 D. Bricker	Building: Single-family property (c. 1948)	Subarea 12
33-012168	—	Historic Structure	6Y (not eligible for NRHP; not evaluated for CRHR)	1998 D. Bricker	Building: Single-family property (c. 1948)	Subarea 12
33-012169	—	Historic Structure	6Y (not eligible for NRHP; not evaluated for CRHR)	1998 D. Bricker	Building: Single-family property (c. 1946)	Subarea 12
33-012170	—	Historic Structure	6Y (not eligible for NRHP; not evaluated for CRHR)	1998 D. Bricker	Building: Commercial property (c. 1947)	Subarea 10
33-013078	—	Historic Structure	6 (not eligible)	2003 J. Smallwood	Building: Single-family property (c. 1924)	Subarea 12
33-013206	—	Historic Structure	6 (not eligible)	2002 T. Woodward	Building: Single-family property (c. 1956)	Subarea 12
33-013207	—	Historic Structure	6 (not eligible)	2002 T. Woodward	Building: Multi-family property (c. 1940s)	Subarea 11
33-013209	—	Historic Structure	6 (not eligible)	2002 T. Woodward	Building: Single-family property (c. 1920s)	Subarea 11
33-013210	—	Historic Structure	6 (not eligible)	2002 T. Woodward	Building: Single-family property (c. 1890s)	Subarea 11
33-013806	—	Historic Structure	6 (not eligible)	2004 J. Marvin	Building: Single-family property (c. 1946)	Subarea 12
33-013807	—	Historic Structure	6 (not eligible)	2004 J. Marvin	Building: Single-family property (c. 1924)	Subarea 12
33-013808	—	Historic Structure	6 (not eligible)	2004 J. Marvin	Building: Single-family property (c. 1937)	Subarea 12
33-013809	—	Historic Structure	6 (not eligible)	2004 J. Marvin	Building: Single-family property (c. 1923)	Subarea 12

Table 3.4-2. Previously Recorded Cultural Resources Within the SPA

Primary Number	Trinomial (CA-)	Period	NRHP/CRHR Status*	Recorded Year/By	Description	Proximity
33-013810	—	Historic Structure	6 (not eligible)	2004 J. Marvin	Building: Single-family property (c. 1940)	Subarea 12
33-013811	—	Historic Structure	6 (not eligible)	2004 J. Marvin	Building: Single-family property (c. 1928)	Subarea 12
33-013812	—	Historic Structure	6 (not eligible)	2004 J. Marvin	Building: Single-family property (c. 1945)	Subarea 12
33-013813	—	Historic Structure	6 (not eligible)	2004 J. Marvin	Building: Single-family property (c. 1926)	Subarea 12
33-013814	—	Historic Structure	6 (not eligible)	2004 J. Marvin	Building: Single-family property (c. 1931)	Subarea 12
33-013815	—	Historic Structure	6 (not eligible)	2004 J. Marvin	Building: Single-family property (c. 1926)	Subarea 12
33-013816	—	Historic Structure	6 (not eligible)	2004 J. Marvin	Building: Single-family property (c. 1945)	Subarea 12
33-013817	—	Historic Structure	6 (not eligible)	2004 J. Marvin	Building: Single-family property (c. 1913)	Subarea 15
33-013818	—	Historic Structure	6 (not eligible)	2004 J. Marvin	Building: Single-family property (c. 1912)	Subarea 15
33-013819	—	Historic Structure	6 (not eligible)	2004 J. Marvin	Building: Single-family property (c. 1935)	Subarea 15
33-013820	—	Historic Structure	6 (not eligible)	2004 J. Marvin	Building: Single-family property (c. 1922)	Subarea 15
33-013821	—	Historic Structure	6 (not eligible)	2004 J. Marvin	Building: Single-family property (c. 1922)	Subarea 15
33-013822	—	Historic Structure	6 (not eligible)	2004 J. Marvin	Building: Single-family property (c. 1921)	Subarea 15
33-013823	—	Historic Structure	6 (not eligible)	2004 J. Marvin	Building: Single-family property (c. 1949)	Subarea 12
33-014015	—	Historic Structure	6 (not eligible)	2004 S. Carmack	Building: Single-family property (c. 1953)	Subarea 12
33-014726	—	Historic Structure	6 (not eligible)	2005 C. Tibbet and J. Smallwood	Building: Single-family property (c. 1924)	Subarea 12

Table 3.4-2. Previously Recorded Cultural Resources Within the SPA

Primary Number	Trinomial (CA-)	Period	NRHP/CRHR Status*	Recorded Year/By	Description	Proximity
33-014727	—	Historic Structure	6 (not eligible)	2005 C. Tibbet	Building: Single-family property (c. 1954)	Subarea 12
33-014884	—	Historic Structure	6 (not eligible)	2014 A. Gusick and K. Tennesen; 2005 C. Tibbet	Building: Single-family property (Built date unknown)	Subarea 12
33-014885	—	Historic Structure	6 (not eligible)	2014 A. Gusick and K. Tennesen; 2005 C. Tibbet	Building: Single-family property (c. 1916)	Subarea 12
33-014886	—	Historic Structure	6 (not eligible)	2014 A. Gusick and K. Tennesen; 2005 C. Tibbet	Building: Single-family property (c. 1950s)	Subarea 12
33-014953	—	Historic	7 (not evaluated)	2006 L. Pierson and G. Weatherford	Building: White Sulphur Springs Pool and facility (c. 1938)	Subarea 12
33-017517	—	Historic Structure	6 (not eligible)	2005 J. Smallwood	Building: Single-family property (c. 1933)	Subarea 12
<b>Sites Within San Bernardino County</b>						
36-006086	SBR-06086	Historic	6 (not eligible)	2014 A. Gusick and K. Tennesen; 1988 G. Romani et al.	Historic: Refuse scatter	Subarea 1
36-007172	SBR-07172	Historic Structure	6 (not eligible)	2014 A. Gusick and K. Tennesen; 1992 R. Wlodarski	Water conveyance system: Riverside Lower Canal	Subarea 1, 2
36-009814 (same as 33-08752)	SBR-09814/6237	Multi-component	7 (not evaluated)	1999 B. Love	Historic: Refuse scatter Prehistoric: Lithic and ceramic scatter	Subarea 16
36-019808	—	Historic	6 (not eligible)	2014 A. Gusick and K. Tennesen; 2008 J. Dietler	Historic: Farmstead ruins	Subarea 1
36-019809	—	Historic	6 (not eligible)	2014 A. Gusick and K. Tennesen; 2008 J. Dietler	Historic: Homestead ruins, element of Pellissier Ranch	Subarea 1
36-019810	—	Historic Structure	6 (not eligible)	2014 A. Gusick and K. Tennesen; 2008 J. Dietler	Water conveyance system: South Well, element of Pellissier Ranch	Subarea 1

Table 3.4-2. Previously Recorded Cultural Resources Within the SPA

Primary Number	Trinomial (CA-)	Period	NRHP/CRHR Status*	Recorded Year/By	Description	Proximity
36-019814	SBR-013176	Prehistoric	6 (not eligible)	2015 J. Hanlen; 2014 A. Gusick and K. Tennesen; 2008 J. Dietler	Prehistoric: Bedrock milling	Subarea 1
36-019815	—	Historic	6 (not eligible)	2014 A. Gusick and K. Tennesen; 2008 J. Dietler	Historic: Homestead ruins, element of Pellissier Ranch	Subarea 1
36-019817	—	Historic Structure	6 (not eligible)	2014 A. Gusick and K. Tennesen; 2008 J. Dietler	Water conveyance system: Five water control features, elements of Pellissier Ranch	Subarea 1
36-019818	SBR-013178	Historic Structure	6 (not eligible)	2014 A. Gusick and K. Tennesen; 2008 J. Dietler	Water conveyance system: Highgrove Channel	Subarea 1, 2
36-019820	SBR-013180	Prehistoric	6 (not eligible)	2015 J. Hanlen; 2014 A. Gusick and K. Tennesen; 2008 J. Dietler	Prehistoric: Bedrock milling	Subarea 1
36-019821	—	Historic Structure	6 (not eligible)	2014 A. Gusick and K. Tennesen; 2008 J. Dietler	Water conveyance system: Main Well, element of Pellissier Ranch	Subarea 1
36-026886	—	Historic Structure	6 (not eligible)	2009 E. Hilton	Building: Multi-family property (c. 1955)	Subarea 12
36-029039	SBR-029039	Prehistoric	6 (not eligible)	2015 J. Hanlen	Prehistoric: Bedrock milling	Subarea 1
36-060235	—	Historic	6 (not eligible)	2015 J. Hanlen; 2014 A. Gusick and K. Tennesen; 1966 Unkown	Historic: Refuse scatter	Subarea 1
36-060252	—	Historic	6 (not eligible)	2014 A. Gusick and K. Tennesen; 1987 G. Romani and S. Wakefield	Isolate: Bottle finish	Subarea 1

**Note:** \*The NRHP/CRHR Status Codes provided by the Eastern Information Center (as shown in the above table) do not always reflect current California Historical Resource Status Codes (as revised in 2003). Many of the status codes presented above represent the outdated status code system. However, resource status is clarified by the text in parenthesis.

### ***Previously Identified Archaeological Resources***

In and around the foothills of the La Loma Hills are the prehistoric sites and the prehistoric component of the multicomponent site. The prehistoric sites consist of bedrock milling surfaces (P-36-19814, P-36-19820, and P-36-29039). The prehistoric component of the multicomponent site (33-008752/36-009814) consists of a sparse artifact scatter including a hand stone, a core, and a brownware pottery sherd (P-33-08752/P-36-09814). Brian F. Smith and Associates evaluated the bedrock milling sites in 2015 and determined them ineligible for listing (Hanlen 2015a, 2015b, 2015c). The prehistoric component of the multicomponent site (33-008752/36-009814) has not been evaluated for significance. Important to note is White Sulphur Springs (P-33-14953), which is not recorded as a prehistoric site but potentially has a prehistoric component, was identified in the 2005 Mermilliod report. The natural hot spring is roughly 1 mile south of the La Loma Hills, in a residential area along Strong Street. Although the prehistoric component of the site was not included in the site record, which focused on the built environment surrounding the spring, the spring is known for its early Native American occupation and there is a potential for a prehistoric archaeological component at this site (Mermilliod 2005).

The historic archaeological sites and the historic component of the multicomponent site are scattered throughout the SPA. The majority of these resources (n=13) are either within or in close proximity to the Pellissier Ranch and the proposed Subareas 1 and 2 portion of the SPA and most likely associated with the early settlement of La Placita and Pellissier Ranch. These resources consist of homestead or farmstead ruins (P-36-19808, P-36-19809, and P-36-19815), four historic-age refuse scatters (P-36-06086, P-33-09006, P-36-60235, and P-33-08752/P-36-09814), and one isolated historic-age bottle fragment (P-36-60252). As of 2015, descendants of the families of the settlements of Agua Mansa and La Placita are working to list the site on the CRHR and NRHP. Of the remaining sites within the northern portion of the SPA, seven were determined ineligible for listing (P-36-06086, P-33-09006, P-36-19808, P-36-19808, P-36-19815, P-36-60235, and P-36-60252). The historic component of the multicomponent site (33-008752/36-009814) has not been evaluated for significance.

Historic archaeological resources identified within the middle portion of the Northside SPA include foundations of a historic building (P-33-04299), ruins of a farming/orchard enterprise (P-33-08651) and a domestic refuse scatter (P-33-08650). The latter two resources were recorded in 1998, prior to development of tract housing in their immediate location. Sites P-33-08651 and P-33-08650 were likely destroyed by this development. Site P-33-04299 is within vacant land that is slated for development under the Northside Neighborhood General Plan 2025. The eligibility status for this resource is unknown.

The two remaining historic archaeological sites are within the proposed Subarea 11 portion of the SPA. These sites consist of ruins of Pacific Electric Railway maintenance and operations facilities (P-33-08754 and P-33-08755). The sites were determined ineligible for listing in 1999 (Love 1999a, 1999b). The records indicate that the sites were slated for demolition. This parcel was developed into residential housing by 2003 (NETR 2019). The sites were likely destroyed by this development.

### ***Previously Identified Historic Built Environment Resources***

The historic-age built environment resources consist primarily of historic-age buildings (n=74) including 70 single-family residences, three multifamily properties (P-33-11538, P-33-13207, and P-36-26886), and one commercial property (P-33-12170). The single-family properties were constructed between the 1890s and the 1950s. Although these properties are scattered throughout the SPA, concentrations of single-family residences are found near Hunter Park, along the north portion of Main Street, and along Strong Street. The 1930s Mission Revival style single-family residence at 3261 Strong Street (P-33-11539) is designated as City of Riverside Landmark No. 91, Structure of Merit No. 187, and appears eligible for the NRHP (Appendix B). The 1920s Craftsman style bungalow at 3720

Stoddard Avenue (P-33-12135) is designated as a City of Riverside Structure of Merit (No. 189) and appears eligible for the NRHP and CRHR (Bricker 1995). Of the remaining single-family residences, 61 were determined not eligible for listing and 7 were not evaluated. None of the multifamily properties nor the commercial building are eligible for listing.

The one previously recorded historic-age recreational property within the SPA is located at 3723-25 Strong Street (Proposed Subarea 12). These grounds contain a native hot spring that has been used for centuries, first by Native Americans, then by locals and visitors to Riverside. The grounds have seen extensive changes throughout the years. The final change of ownership and subsequent remodel occurred in 1959 with the opening of White Sulphur Springs (P-33-14953). This recreational retreat boasted a swimming pool, badminton and volleyball courts, a shuffleboard deck, a water slide, as well as other facilities (Pierson and Weatherford 2006). The facility closed in the late 1960s, and the property lay dormant until it was razed in 2014.

The remaining nine built environment resources consist of water conveyance and storage structures associated with the citrus industry and agricultural enterprises of the late nineteenth and early twentieth centuries. Combined, four of these resources make up the segment of the Upper and Lower Riverside Canal and Warm Creek Canal that traverse the SPA from roughly northeast to southeast and northeast to southwest respectively (P-33-04495, P-33-04787, P-33-04791, and P-36-07172). Construction for this 19-mile-long resource began in 1870 to support the growing agricultural industry. While the majority of the alignment was either abandoned, replaced, or destroyed by 1996, some portions of the canal appeared eligible for listing in the CRHR (Starzak and Fitzgerald 1996). By 2001, approximately 40% of the canal was still in use.

Four of the water conveyance/storage features are within the northern portion of the SPA. South Well (P-36-19810), Main Well (P-36-19821), and a system of weir boxes (P-36-19817) are all presumed features from ranching and farming at Pellissier Ranch through the 1940s. The modern improved Highgrove Channel (P-36-19818) is also within this area. All four of these resources were determined ineligible for listing in 2008 (Dietler and Covert 2008).

In the middle of the SPA near the banks of the Santa Ana River is a site consisting of a well, a pump, and three weir boxes which date from the early 1900s (P-33-10902). In 2000, Hogan determined the site ineligible for state and local listing. The location of the site is currently within an undeveloped vacant lot. According to the City of Riverside General Plan 2025 (City of Riverside 2007), the parcel is slated for future residential development.

### **California Historic Resources Inventory Summary**

The California Historic Resources Inventory (HRI) results indicate that 414 historic resources have been evaluated to various degrees within the SPA between 1968 and 2013. Determinations were awarded based on historic resource survey information (i.e., reconnaissance level surveys), project reviews, and individually evaluated historic resources. Two resources are individual properties determined eligible for NRHP by a consensus through the Section 106 process and are also listed in the CRHR (2S2). These properties are 3720 Stoddard Avenue and 3261 Strong Street. Seven resources are individual properties that are listed or designated in a local register (5S1). Ten resources are individual properties that are eligible for local listing or designation (5S2). One resource was locally significant both individually (listed, eligible, or appears eligible) and as a contributor to a district that is locally listed, designated, determined eligible or appears eligible through survey evaluation (5B). Some 188 resources were determined ineligible for local listing, but warrant special consideration in local planning (6L). In addition, 12 resources were determined ineligible for NRHP pursuant to Section 106 without review by the State Historic Preservation Officer (6U). These resources may require reevaluation for CRHR or local designation. Some 69 resources were determined ineligible for the NRHP through the Section 106 process, but have not been formally evaluated for the CRHR or local designation (6Y). These resources may require reevaluation for CRHR or local

designation. In addition, 69 resources were determined ineligible for the NRHP, CRHR, and local designation based on survey evaluation (6Z). These resources do not require reevaluation. Finally, 54 resources were identified in Reconnaissance Level Survey (Mermilliod 2005) as needing evaluation (7R) and 1 resource, the Trujillo Adobe, needs to be reevaluated using current standards (7L). However, this status code is outdated as it is known that the Trujillo Adobe was reevaluated by Howell-Ardila (2018) and recommended eligible for the NRHP. Further, the Trujillo Adobe is designated as City of Riverside Landmark No. 130 and County of Riverside Landmark No. 009.

The identified HRI properties within the SPA are listed in Appendix B.1.

### Historical Aerial Overview

Historical aerial photographs of the SPA were reviewed to get a better understanding of the built environment as it changed through time. Historic aerial photographs were available for the years 1930, 1931, 1938, 1939, 1948, 1953, 1954, 1959, 1962, 1963, 1966, 1967, 1968, 1976, 1978, 1980, 1990, 1995, 2002, 2005, 2009, 2010, 2012, and 2014 (NETR 2019; UCSB 2019).

In the earliest available aerials from 1930 and 1931, the area is dominated by agricultural fields and orchards, demarcated to the north by the La Loma Hills. Spring Creek bisects the SPA from west to east, and the Santa Ana River bed takes up a wide, braided bed to the west. Several modern roads are visible, including La Cadena Drive, Orange Street, Placentia Lane, Old Pellisier Road, and Main Street, as well as Center Street/W. Main Street heading east to Highgrove town center. The majority of nonagricultural residential properties are clustered along La Cadena Drive, which visibly extends from the 3001 W. La Cadena Drive property partially within the SPA boundary to the north, the mixed-use residential and commercial properties in the Riverside Canal oxbow, south to roughly Spruce Street before giving way to more orchards. The concentration of residential properties shifts to being concentrated along Main Street southwest of Strong Street. Other properties to note in the 1930s aerials are an agricultural property along Garner Road where a truck repair property is located today that may require evaluation, and several small residential lots and houses along Columbia Avenue and the north side of Strong Street west of Main Street.

Post-1938 photographs show evidence of a large flood along the Santa Ana River, likely the result of the flood that devastated neighboring San Bernardino County and neighboring Los Angeles County that same year. The flood damage consisted of the visible scouring of the agricultural properties in the northwest section of the SPA, southwest of Old Pellisier Road and north of Strong Street. Despite this damage, residential development extends further north from downtown Riverside along Main Street, extending north of and densifying along Strong Street.

The 1953 photograph shows that the orchards west of Orange Street haven't yet fully recovered, and the large, open agricultural properties appear to be dry farming, or growing something with low groundcover. Orchards remain in abundance between Orange Street and La Cadena Drive and east to Highgrove. By 1953 La Cadena Drive has been widened into a multilane highway, though it lacks the bridge overpasses and clover-style exits of the later interstate highway. La Cadena is now fully lined with long, residential lots. A few residential subdivisions are visibly under development in the 1953 aerials along Marsh Way, Mulberry Street, Post Street, Powell Way, Elliotta Drive, Sutter Way, Witt Avenue, Stansell Drive, Stephens Avenue, and Shamrock Avenue. Fairmount Park appears fully developed in the 1953–1954 photographs, and Riverside's urban boundary appears filled, with no visible undeveloped places below Market Street and Spruce Avenue. In the 1959 aerial, the Freemont Elementary School on Main Street appears.

In the 1962 aerials, both the Pomona Highway (CA-60) and the Riverside Freeway (I-215) appear nearly completed and in their current alignment, with all bridges, exits, and overpasses in place. Many of the properties along La Cadena Drive, despite their proximity to the construction, appear to have been retained, with some areas along

Center Street and Toulouse Avenue growing denser with residential development. Between 1962 and 1963, the Riverside Golf Club links and Reid Park were created and landscaped, and immature plantings demarcated the 18 holes. A formalized, concrete canal appears extending southwest from roughly Garner Road to CA-60, then south into Fairmont Park. Another concrete channel, along (new) Pellisier Road extends from a small reservoir just north of Center Street at the bottom of the La Loma Hills west to the Santa Ana River. By 1968, nearly all of the orchard agricultural properties in the SPA have been removed. Some agricultural properties are still present north of Placentia Lane and south of the La Loma Hills, but these appear dry in year-to-year photographs.

In the 1976 and 1980 photographs, the subdivisions established in the early 1960s expanded and added streets, especially along Main Street, Columbia Avenue, Strong Street. A few industrial properties appear along Main Street northwest of the residential area, just west-northwest of the golf links. Some notable multifamily residential developments were Breezewood Apartments on Main Street and Kirkwood Avenue, the Springbrook Park Apartments on Orange Avenue, the Springbrook Park townhomes and Parkdale Village townhomes on Clark Street, and the La Cadena Creek Mobile Home Park just west of La Cadena Drive.

By the 1990 and 1995 aerial images, the industrial area on Main Street and Pellisier Road has substantially expanded in all directions, as far east as Placentia Lane, west to the Santa Ana riverbed edge north to the Main Street Bridge, and south to Carter Road. The business park campus at Rivera Street and Latham Street is present by 1995. Changes to the area are few after the mid-1990s. The only development of note is the La Rivera residential subdivision at Strong Street and Rivera Street, which was added between 2005 and 2007.

### 3.4.2 Relevant Plans, Policies, and Ordinances

#### **Federal**

##### ***National Register of Historic Places***

The NRHP is the United States' official list of districts, sites, buildings, structures, and objects worthy of preservation. Overseen by the National Park Service, under the U.S. Department of the Interior, the NRHP was authorized under the National Historic Preservation Act, as amended. Its listings encompass all National Historic Landmarks, as well as historic areas administered by the National Park Service.

NRHP guidelines for the evaluation of historic significance were developed to be flexible and to recognize the accomplishments of all who have made significant contributions to the nation's history and heritage. Its criteria are designed to guide state and local governments, federal agencies, and others in evaluating potential entries in the NRHP. For a property to be listed in or determined eligible for listing, it must be demonstrated to possess integrity and to meet at least one of the following criteria:

The quality of significance in American history, architecture, archaeology, engineering, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association, and:

- A. That are associated with events that have made a significant contribution to the broad patterns of our history; or
- B. That are associated with the lives of persons significant in our past; or

- C. That embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
- D. That have yielded, or may be likely to yield, information important in prehistory or history.

Integrity is defined in NRHP guidance, “How to Apply the National Register Criteria,” as “the ability of a property to convey its significance. To be listed in the NRHP, a property must not only be shown to be significant under the NRHP criteria, but it also must have integrity” (NPS 1990). NRHP guidance further asserts that properties be completed at least 50 years ago to be considered for eligibility. Properties completed fewer than 50 years before evaluation must be proven to be “exceptionally important” (criteria consideration to be considered for listing).

### State

#### *California Register of Historical Resources*

In California, the term “historical resource” includes but is not limited to “any object, building, structure, site, area, place, record, or manuscript which is historically or archaeologically significant, or is significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California” (California Public Resources Code Section 5020.1(j)). In 1992, the California legislature established the CRHR “to be used by state and local agencies, private groups, and citizens to identify the state’s historical resources and to indicate what properties are to be protected, to the extent prudent and feasible, from substantial adverse change” (California Public Resources Code Section 5024.1(a)). The criteria for listing resources on the CRHR were expressly developed to be in accordance with previously established criteria developed for listing in the NRHP, enumerated below. According to California Public Resources Code Section 5024.1(c)(1–4), a resource is considered historically significant if it (i) retains “substantial integrity,” and (ii) meets at least one of the following criteria:

- (1) Is associated with events that have made a significant contribution to the broad patterns of California’s history and cultural heritage.
- (2) Is associated with the lives of persons important in our past.
- (3) Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values.
- (4) Has yielded, or may be likely to yield, information important in prehistory or history.

In order to understand the historic importance of a resource, sufficient time must have passed to obtain a scholarly perspective on the events or individuals associated with the resource. A resource less than 50 years old may be considered for listing in the CRHR if it can be demonstrated that sufficient time has passed to understand its historical importance (see 14 CCR 4852(d)(2)).

The CRHR protects cultural resources by requiring evaluations of the significance of prehistoric and historic resources. The criteria for the CRHR are nearly identical to those for the NRHP, and properties listed or formally designated as eligible for listing in the NRHP are automatically listed in the CRHR, as are the state landmarks and points of interest. The CRHR also includes properties designated under local ordinances or identified through local historical resource surveys.

### **California Environmental Quality Act**

As described further below, the following California Environmental Quality Act (CEQA) statutes and CEQA Guidelines are of relevance to the analysis of archaeological, historic, and tribal cultural resources:

- California Public Resources Code Section 21083.2(g) defines “unique archaeological resource.”
- California Public Resources Code Section 21084.1 and CEQA Guidelines Section 15064.5(a) define “historical resources.” In addition, CEQA Guidelines Section 15064.5(b) defines the phrase “substantial adverse change in the significance of an historical resource.” It also defines the circumstances when a project would materially impair the significance of an historical resource.
- California Public Resources Code Section 21074(a) defines “tribal cultural resources.”
- California Public Resources Code Section 5097.98 and CEQA Guidelines Section 15064.5(e) set forth standards and steps to be employed following the accidental discovery of human remains in any location other than a dedicated ceremony.
- California Public Resources Code Sections 21083.2(b)-(c) and CEQA Guidelines Section 15126.4 provide information regarding the mitigation framework for archaeological and historic resources, including examples of preservation-in-place mitigation measures; preservation-in-place is the preferred manner of mitigating impacts to significant archaeological sites because it maintains the relationship between artifacts and the archaeological context and may also help avoid conflict with religious or cultural values of groups associated with the archaeological site(s).

More specifically, under CEQA, a project may have a significant effect on the environment if it may cause “a substantial adverse change in the significance of an historical resource” (California Public Resources Code Section 21084.1; CEQA Guidelines Section 15064.5(b).) If a site is either listed or eligible for listing in the CRHR, or if it is included in a local register of historic resources or identified as significant in a historical resources survey (meeting the requirements of California Public Resources Code Section 5024.1(q)), it is a “historical resource” and is presumed to be historically or culturally significant for purposes of CEQA (California Public Resources Code Section 21084.1; CEQA Guidelines Section 15064.5(a)). The lead agency is not precluded from determining that a resource is a historical resource even if it does not fall within this presumption (California Public Resources Code Section 21084.1; CEQA Guidelines Section 15064.5(a)).

A “substantial adverse change in the significance of an historical resource” reflecting a significant effect under CEQA means “physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of an historical resource would be materially impaired” (CEQA Guidelines Section 15064.5(b)(1); California Public Resources Code Section 5020.1(q)). In turn, CEQA Guidelines Section 15064.5(b)(2) states the significance of an historical resource is materially impaired when a project:

1. Demolishes or materially alters in an adverse manner those physical characteristics of an historical resource that convey its historical significance and that justify its inclusion in, or eligibility for, inclusion in the California Register of Historical Resources; or
2. Demolishes or materially alters in an adverse manner those physical characteristics that account for its inclusion in a local register of historical resources pursuant to section 5020.1(k) of the Public Resources Code or its identification in an historical resources survey meeting the requirements of section 5024.1(g) of the Public Resources Code, unless the public agency reviewing the effects of the project establishes by a preponderance of evidence that the resource is not historically or culturally significant; or
3. Demolishes or materially alters in an adverse manner those physical characteristics of a historical resource that convey its historical significance and that justify its eligibility for inclusion in the California Register of Historical Resources as determined by a lead agency for purposes of CEQA.

Pursuant to these sections, the CEQA inquiry begins with evaluating whether a project site contains any “historical resources,” then evaluates whether that project will cause a substantial adverse change in the significance of a historical resource such that the resource’s historical significance is materially impaired.

If it can be demonstrated that a project will cause damage to a unique archaeological resource, the lead agency may require reasonable efforts be made to permit any or all of these resources to be preserved in place or left in an undisturbed state. To the extent that they cannot be left undisturbed, mitigation measures are required (California Public Resources Code Section 21083.2[a], [b], and [c]).

California Public Resources Code Section 21083.2(g) defines a unique archaeological resource as an archaeological artifact, object, or site about which it can be clearly demonstrated that without merely adding to the current body of knowledge, there is a high probability that it meets any of the following criteria:

1. Contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information.
2. Has a special and particular quality such as being the oldest of its type or the best available example of its type.
3. Is directly associated with a scientifically recognized important prehistoric or historic event or person.

Impacts to non-unique archaeological resources are generally not considered a significant environmental impact (California Public Resources Code section 21083.2(a); CEQA Guidelines Section 15064.5(c)(4)). However, if a non-unique archaeological resource qualifies as tribal cultural resource (California Public Resources Code Section 21074(c), 21083.2(h)), further consideration of significant impacts is required. CEQA Guidelines Section 15064.5 assigns special importance to human remains and specifies procedures to be used when Native American remains are discovered. As described below, these procedures are detailed in California Public Resources Code Section 5097.98.

#### ***California Health and Safety Code***

California law protects Native American burials, skeletal remains, and associated grave goods, regardless of their antiquity, and provides for the sensitive treatment and disposition of those remains. California Health and Safety Code Section 7050.5 requires that if human remains are discovered in any place other than a dedicated cemetery, no further disturbance or excavation of the site or nearby area reasonably suspected to contain human remains shall occur until the San Bernardino County coroner has examined the remains (Section 7050.5b). California Public Resources Code Section 5097.98 also outlines the process to be followed in the event that remains are discovered. If the coroner determines or has reason to believe the remains are those of a Native American, the coroner must contact the Native American Heritage Commission (NAHC) within 24 hours (Section 7050.5c), and the NAHC will notify the most likely descendant (MLD). With the permission of the landowner, the MLD may inspect the site of discovery. The inspection must be completed within 48 hours of notification of the MLD by the NAHC. The MLD may recommend means of treating or disposing of, with appropriate dignity, the human remains and items associated with Native Americans.

Local

*City of Riverside*

**City of Riverside Municipal Code Title 20 – Cultural Resources**

Preservation of Riverside’s cultural resources fosters civic and neighborhood pride, forms the basis for identifying and maintaining community character, and enhances livability within the City. Title 20 of the City of Riverside’s Municipal Code provides for the “identification, protection, enhancement, perpetuation and use of improvements, buildings, structures, signs, objects, features, sites, places, areas, districts, neighborhoods, streets, works of art, natural features and significant permanent landscaping having special historical, archaeological, cultural, architectural, community, aesthetic or artistic value in the City” (City of Riverside 20.05.010 Purpose; Ord. 7108 Section 1, 2010; Ord. 6263 Section 1 (part), 1996).

*20.20.010 Designation criteria (Ord. 7108 Section 1, 2010; Ord. 6263 Section 1 (part), 1996)*

The criteria to designate, modify the status of, or dedesignate Landmarks, Structures or Resources of Merit and Historic Districts, and to modify or dedesignate Neighborhood Conservation Areas, are set forth in their definitions in Chapter 20.50.

*20.50.010 Definitions (Ord. 7248 Section 5, 2014; Ord. 7206 Section 24, 2013; Ord. 7108 Section 1, 2010)*

*0. Historic District* means an area which contains:

1. A concentration, linkage, or continuity of cultural resources, where at least 50 percent of the structures or elements retain significant historic integrity, (a “geographic Historic District”) or
2. A thematically-related grouping of cultural resources which contribute to each other and are unified aesthetically by plan or physical development, and which have been designated or determined eligible for designation as a Historic District by the Historic Preservation Officer or Qualified Designee, Board, or City Council or is listed in the National Register of Historic Places or the California Register of Historical Resources, or is a California Historical Landmark or a California Point of Historical Interest (a "thematic Historic District").

In addition to either 1. or 2. above, the area also:

3. Exemplifies or reflects special elements of the City's cultural, social, economic, political, aesthetic, engineering, architectural, or natural history;
4. Is identified with persons or events significant in local, State, or national history;
5. Embodies distinctive characteristics of a style, type, period, or method of construction, or is a valuable example of the use of indigenous materials or craftsmanship;
6. Represents the work of notable builders, designers, or architects;
7. Embodies a collection of elements of architectural design, detail, materials or craftsmanship that represent a significant structural or architectural achievement or innovation;

8. Reflects significant geographical patterns, including those associated with different eras of settlement and growth, particular transportation modes, or distinctive examples of park or community planning;
  9. Conveys a sense of historic and architectural cohesiveness through its design, setting, materials, workmanship or association; or
  10. Has yielded or may be likely to yield, information important in history or prehistory.
- U. *Landmark* means any improvement or natural feature that is an exceptional example of a historical, archaeological, cultural, architectural, community, aesthetic or artistic heritage of the City, retains a high degree of integrity, and meets one or more of the following criteria:
1. Exemplifies or reflects special elements of the City's cultural, social, economic, political, aesthetic, engineering, architectural, or natural history;
  2. Is identified with persons or events significant in local, state or national history;
  3. Embodies distinctive characteristics of a style, type, period or method of construction, or is a valuable example of the use of indigenous materials or craftsmanship;
  4. Represents the work of a notable builder, designer, or architect, or important creative individual;
  5. Embodies elements that possess high artistic values or represents a significant structural or architectural achievement or innovation;
  6. Reflects significant geographical patterns, including those associated with different eras of settlement and growth, particular transportation modes, or distinctive examples of park or community planning, or cultural landscape;
  7. Is one of the last remaining examples in the City, region, State, or nation possessing distinguishing characteristics of an architectural or historical type or specimen; or
  8. Has yielded or may be likely to yield, information important in history or prehistory.

An improvement or natural feature meeting one or more of the above criteria, yet not having the high degree of integrity to qualify as a landmark, may qualify as a structure or resource of merit (see subsection "Secretary of Interior's Standards for the Treatment of Historic Properties," below).

An improvement or natural feature meeting one or more of the above criteria, yet not formally designated as a landmark by the City Council, may be an eligible landmark.

FF. *Structure or resource of merit* means any improvement or natural feature which contributes to the broader understanding of the historical, archaeological, cultural, architectural, community, aesthetic or artistic heritage of the City, retains sufficient integrity, and:

1. Has a unique location or singular physical characteristics or is a view or vista representing an established and familiar visual feature of a neighborhood community or of the City
2. Is an example of a type of building which was once common but is now rare in its neighborhood, community or area;
3. Is connected with a business or use which was once common but is now rare;
4. A cultural resource that could be eligible under landmark criteria no longer exhibiting a high level of integrity, however, retaining sufficient integrity to convey significance under one or more of the landmark criteria;

5. Has yielded or may be likely to yield, information important in history or prehistory; or
6. An improvement or resource that no longer exhibits the high degree of integrity sufficient for landmark designation, yet still retains sufficient integrity under one or more of the landmark criteria to convey cultural resource significance as a structure or resource of merit.

### **Historic Preservation Element of the City of Riverside General Plan 2025**

In 1994, the City's General Plan was adopted and included historical preservation goals and policies that addressed preserving the City's historical and architecturally significant structures and neighborhoods and supporting and enhancing its arts and cultural institutions. In 2007, with the General Plan 2025, the City adopted a new General Plan, while still maintaining a Historic Preservation Element. The proposed project would be consistent with the following objectives and policies from the City's General Plan 2025 Historic Preservation Element (City of Riverside 2007):

**Objective HP-1:** To use historic preservation principles as an equal component in the planning and development process.

**Policy HP-1.3:** The City shall protect sites of archaeological and paleontological significance and ensure compliance with all applicable State and federal cultural resources protection and management laws in its planning and project review process.

**Policy HP-1.4:** The City shall protect natural resources such as geological features, heritage trees, and landscapes in the planning and development review process and in park and open space planning.

**Objective HP-5:** To ensure compatibility between new development and existing cultural resources.

**Policy HP-5.1:** The City shall use its design and plot plan review processes to encourage new construction to be compatible in scale and character with cultural resources and historic districts.

**Policy HP-5.2:** The City shall use its design and plot plan review processes to encourage the compatibility of street design, public improvements, and utility infrastructure with cultural resources and historic districts.

### **City of Riverside Historical Context Statements**

Several historic context statements have been developed for the City of Riverside which overlap or intersect the Northside Specific Plan Area. These contexts are:

- 2005, Jennifer Mermilliod. *Reconnaissance Survey and Context Statement for a Portion of the Northside*. Prepared for City of Riverside Planning Department.
- 2009, Teresa Grimes and Christina Chiang. *City of Riverside Modernism Context Statement*. Prepared for City of Riverside Historic Preservation Program.
- 2011, Donna Graves. *Japanese American Heritage and the Quest for Civil Rights in Riverside, California, 1890s–1970s*. National Register of Historic Places Multiple Property Documentation Form.

- 2013, Historic Resources Group. *City of Riverside, Citywide Modernism Intensive Survey*. Prepared for City of Riverside Community Development Department.
- 2016, M. Rosalind Sagara. *Chinese Americans in Riverside: Historic Context Statement*. Prepared for City of Riverside Historic Preservation Program.
- 2018, Debi Howell-Ardila. *City of Riverside Latino Historic Context Statement*. Prepared for City of Riverside Community and Economic Development Department.

### **City of Colton**

#### **Historic Preservation Ordinance of the City of Colton**

Chapter 15.40 of the Colton Code of Ordinances outlines the Historic Preservation Ordinance for the City of Colton, establishing the rules and regulations governing the designation and preservation of historic resources. Through this ordinance, the City of Colton determines and declares:

- A. That the State Legislature of California, pursuant to Government Code Sections 37361 and 25373, has recognized the value of identifying, protecting, and preserving places, Buildings, Structures, and other objects of historical, aesthetic, and cultural importance and has empowered cities to adopt regulations and incentives for the protection, enhancement, perpetuation, and Use of such places, Buildings, Structures, and other objects;
- B. That the City of Colton possesses many distinctive places, Buildings, Structures, and neighborhoods, beautiful trees, gardens and Streetscapes, public Parks, scenic areas, and urban design features (all referred to in this chapter as “resources”) that enhance its value as an attractive and delightful community in which to live and work;
- C. That certain of these resources are of cultural, aesthetic or historical significance and value because of age, architectural style, aesthetic Appeal, or association with Local history;
- D. That encouraging the preservation of these resources contributes to the livability and beauty of the community, stimulates economic revitalization, improves Property values in the City of Colton, fosters architectural creativity, increases neighborhood stability and conservation, fosters public appreciation of and civic pride in the beauty of the City of Colton and the accomplishments of its past, reinforces the distinctive character of the community, adds to the community's understanding of its history and connection with the life and values of the past, and ensures that Colton's cultural, historical, and architectural heritage will be imparted to future generations;
- E. That shifts in population and in the economy, changes in the way people live, and changes in land Use patterns that threaten to destroy these irreplaceable and desirable resources. Construction and Alterations of inferior quality and appearance are also a threat to these resources;
- F. That the adoption of reasonable and fair regulations is necessary as a means of recognition, documentation, preservation, and maintenance of resources of cultural, aesthetic, or historical significance. Such regulations serve to integrate the preservation of resources and the extraction of relevant data from such resources into public and private land management and Development processes, and to identify as early as possible and resolve conflicts between the preservation of Cultural Resources and alternative land Uses. Finally, this chapter is intended to carry out the goals and policies of the Colton General Plan.

No corresponding studies or historic context statements have been developed for the City of Colton.

*County of Riverside***Chapter 15.72 Historic Preservation Districts**5.72.020 - Purpose.

The purpose of this chapter is to set forth reasonable and uniform procedures for historic preservation districts that do each of the following:

- A. Protect, enhance and perpetuate structures, architectural styles, landmarks and irreplaceable assets that represent past eras, events, and persons important in county history, or which provide significant examples of the physical surroundings in which past generations lived.
- B. Safeguard the county's historic heritage, as embodied and reflected in established historic preservation districts.
- C. Stabilize and improve property values.
- D. Protect and enhance the county's attractiveness to residents, tourists and visitors, and serve as a support and stimulus to business and industry.
- E. Strengthen the economy of the county.
- F. Promote the use of historic preservation districts for the education, pleasure, prosperity and welfare of the county's residents.

15.72.050 - Establishing historic preservation districts.

- G. A historic preservation district may be established only upon the board of supervisors adopting a resolution that includes the boundaries of the historic preservation district, the first finding listed below and one or more of the subsequent findings listed below:
  - The proposed historic preservation district is in conformity with the cultural and paleontological section of the multipurpose open space element of the Riverside County General Plan.
  - The area exemplifies or reflects significant aspects of the cultural, political, economic or social history of the county, state or nation; or
  - The area is identified with historic personages or with important events in county, state or national history; or
  - The area embodies the distinguishing characteristics of a significant architectural period which is inherently valuable for the study of architecture unique to the history of the county, state, or nation.

### 3.4.3 Thresholds of Significance

The significance criteria used to evaluate the project impacts to cultural resources are based on Appendix G of the CEQA Guidelines. According to Appendix G of the CEQA Guidelines, a significant impact related to cultural resources would occur if the project would:

1. Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5.
2. Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5.
3. Disturb any human remains, including those interred outside of dedicated cemeteries.

### 3.4.4 Impacts Analysis

***Would the project cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?***

**Potentially Significant.** As a result of the CHRIS record search, 343 previously recorded cultural resources were identified within the records search area, 101 of which are located within the SPA. Of these, there are 83 historic built environment resources, and the remaining 17 are archaeological sites (see below). Of the 83 built environment resources identified:

- 4 appear eligible for the NRHP and/or CRHR (Status Code 3);
- 1 appears eligible for local listing (Status Code 5);
- 45 were determined ineligible for the NRHP and CRHR (Status Code 6);
- 26 were determined ineligible for the NRHP, but remain unevaluated for the CRHR (Status Code 6Y); and
- 7 have not been formally evaluated (Status Code 7).

The HRI indicates that there are 465 historic built environment resources on the state’s inventory that are within the SPA. It is important to note that many of the HRI listings overlap/repeat the CHRIS record search results stated above. Of the 460 built environment resources:

- 2 are individual properties determined eligible for NRHP by a consensus through Section 106 process, and are also listed in the CRHR (2S2);
- 7 are individual properties that are listed or designated in a local register (5S1);
- 10 are individual properties that are eligible for local listing or designation (5S2);
- 1 was locally significant both individually and as a contributor to a district that is locally listed, designated, determined eligible or appears eligible through survey evaluation (5B);
- 208 resources were determined ineligible for local listing, but warrant special consideration in local planning (6L);
- 7 resources were determined ineligible for NRHP pursuant to Section 106 without review by SHPO (6U);
- 47 resources were determined ineligible for the NRHP through the Section 106 process, but have not been formally evaluated for the CRHR or local designation (6Y);
- 77 resources were determined ineligible for the NRHP, CRHR and local designation based on survey evaluation (6Z);
- 105 resources were identified in Reconnaissance Level Survey as needing evaluation (7R); and
- 1 resource, the Trujillo Adobe, needs to be reevaluated using current standards (7L). However, this status code is outdated as it is known that the Trujillo Adobe was reevaluated by Howell-Ardila in 2018 and recommended eligible for the NRHP. Further, the Trujillo Adobe is designated as City of Riverside Landmark No. 130 and County of Riverside Landmark No. 009.

A summary of historic built environment resources and the subareas they fall within are discussed below. These results discuss historical, current, and future uses; CHRIS record search results; HRI record search results; aerial photographs; and relevant historical context. Summarized below, there are known historical resources within the proposed Northside SPA as well as numerous resources over 45 years old that have not yet been evaluated for historical significance to determine if they are historical resources under CEQA. Consequently, future project-related activities have the potential to result in significant impacts to historical resources.

### Subarea 1

Subarea 1 encompasses approximately 215 acres at the north end of the SPA, within the City of Colton. The area has historically been used as agricultural/ranching, and the current land use designations for Subarea 1 are Light Industrial and Very Low Density Residential (City of Colton 2013).

The CHRIS record search results indicate that there are 12 previously recorded resources in Subarea 1 and two previously recorded resources immediately adjacent to the proposed border of Subarea 1: the Highgrove Channel (P-36-19818) and a historic isolate (P-36-60252). Resource types included historic homestead/farm ruins, water conveyance systems, wells, a prehistoric bedrock milling site, a historic bottle isolate, and a historic refuse scatter. All 14 recorded resources were determined ineligible for the NRHP and CRHR (Status Code 6).

The HRI indicated that there were no additional recorded properties within Subarea 1.

A review of historic aerial photographs indicates that Subarea 1 was historically used for agriculture and had sparse residential, farm, and ranch properties. However, Subarea 1 is extensively covered by previous cultural resource studies and surveys, and it is unlikely that unrecorded resources are present in this area (NETR 2019; UCSB 2019).

A change in use from Light Industrial and Very Low Density Residential to Light Industrial with a Transition Zone overlay within Subarea 1 would have a potentially significant impact on historical resources.

### Subarea 2

Subarea 2 encompasses approximately 108 acres, directly south of Subarea 1. The area has historically been used as agricultural/ranching, and the current land use designation for Subarea 2 is Light Industrial (City of Colton 2013).

The CHRIS record search results indicate that there are two (2) previously recorded resources adjacent to Subarea 2: the Highgrove Channel (P-36-19818) and the Riverside Lower Canal (P-36-007172). Both of these resources are water conveyance systems, and both were previously determined ineligible for the NRHP and CRHR (Status Code 6).

Review of the HRI indicates that there are no additional previously recorded properties within Subarea 2.

A review of historic aerial photographs indicates that Subarea 2 was historically used for agriculture and water conveyance, and had sparse residential, farm, and ranch properties. However, Subarea 2 has been covered by cultural resource studies and surveys, and it is unlikely that unrecorded resources are present in this area (NETR 2019; UCSB 2019).

Subarea 2 would include a Residential Overlay (R-O), which provides the opportunity to develop residential land uses. Subarea 2, with application of the Residential Overlay, would yield approximately 2,430 dwelling units (30 dwelling units per acre), assuming 75% of the subarea is developed with residential land uses. A change in use from Light Industrial to Light Industrial with a Residential Overlay within Subarea 2 would have a potentially significant impact on historical resources.

### Subarea 3

Subarea 3 encompasses approximately 22 acres, south of Subarea 2. The area has historically been used as agricultural ranching with a later use of industrial, and the current land use designation for Subarea 3 is Business/Office Park (B/OP) (City of Riverside 2007).

The CHRIS records search results indicate that there is one previously recorded resource within Subarea 3: a single-family residence located at 220 N. Main Street, built in c. 1898 (P-33-006971). The site also included outbuildings, including a windmill, shed, and historic aged trees. This resource was identified in 1982 by Thelma Newman and the Riverside Historical commission, but has not been evaluated (Status Code 7R). According to aerial photographs, this property was demolished between 1982 and 1990.

The HRI indicated that there were no additional resources. A review of historic aerial photographs indicates that Subarea 3 was historically used for agriculture and had sparse residential and ranch properties in the 1930s, but in the 1950s, industrial properties are introduced along Main Street. For several decades, the only holdout of the agricultural/residential properties was 220 N. Main Street (P-33-006971). Aerial photographs indicate 220 N. Main Street was demolished between 1982 and 1990 and replaced with an industrial property (NETR 2019; UCSB 2019).

The Northside Specific Plan would redesignate land uses in Subarea 3 as High Density Residential, which would yield 479 to 1,320 dwelling units based on a density of 29 dwelling units per acre (du/ac) to 60 du/ac. Subarea 3 also would be subject to the Transition Zone Overlay, and allow for the expansion of light industrial and office uses similar to the existing developments on the west side of Main Street (Subarea 15). While the change to High Density Residential would be a significant break from the historical use of the area, a change in use would have a potentially significant impact on historical resources.

### **Subarea 4**

Subarea 4 encompasses approximately 15 acres, to the east of Subarea 3. The area has historically been used as agricultural ranching, and the current land use designation for Subarea 4 is Business/Office Park, however there are currently no Business/Office Park properties in Subarea 4 (City of Riverside 2007).

The CHRIS record search results indicate that there is one (1) previously recorded resource within Subarea 4: a single-family residence located at 3667 Placentia Lane, built in c. 1922 (P-33-006973), which was identified during reconnaissance level survey but not evaluated (Status Code 7R). The HRI indicated that there were no additional resources. This property is visible in modern aerial photographs from as recent as 2018 and is assumed to still be present in Subarea 4 (NETR 2019; UCSB 2019).

The Northside Specific Plan would redesignate land uses in Subarea 4 to Medium High Density Residential, which would yield 432 dwelling units based on a density of 18 du/ac. Subarea 4 would be subject to the Transition Zone Overlay, which would allow for the existing uses to continue to operate under a Business/Office Park land use designation, and would also allow for the expansion of light industrial and office uses similar to the existing developments on the west side of Main Street (Subarea 15). The change in use could potentially result in a significant impact to the setting of 3667 Placentia Lane (P-33-006973), if the property is reevaluated and found to be an historical resource under CEQA. Any future projects that affect Subarea 4 would require the reevaluation of this property. Thus, impacts to historical resources would be potentially significant within Subarea 4.

### **Subarea 5**

Subarea 5 encompasses approximately 17 acres near the middle of the SPA. The area has historically been used as agricultural ranching with a later use of industrial, and the current land use designation for Subarea 5 is Business/Office Park, with some Commercial in the southern portion. Currently Subarea 5 actually contains Business/Office Park and commercial properties, as well as residential properties in the southern-most portion of Subarea 5.

The CHRIS record search results indicate that there are no previously recorded resources within Subarea 5.

The HRI indicated that there were no recorded resources within Subarea 5.

The City of Riverside Latino Historic Context Statement, prepared in 2018, indicates that an area overlapping Subarea 5 was surveyed in 2018 and roughly dated the initial development period of the Subarea 5 to 1910– 1919 (Howell-Ardila 2018). A review of historic aerial photographs indicates that Subarea 5 was one large agricultural property, with two single-family residences and a cluster of out buildings northeast of the intersection of Main Street and Witt Avenue. These residences are present in the earliest photographs from 1931. These are likely the single-family residences at 1044 Main Street, a heavily modified upright-and-wing single-family residence, and 1058 Main Street, a one-story, wood-clad single-family residence, which are still present today. The northern part of Subarea 5 had single-family residences in the 1931 aerial, but these disappear by the 1938 aerial, likely damaged by the 1938 floods. The area remains sparse residential/agricultural for a few decades more, then is refashioned as an industrial area in the late 1960s and early 1970s (Howell-Ardila 2018; NETR 2019; UCSB 2019).

The Northside Specific would redesignate land uses in Subarea 5 to High Density Residential, which would yield 370 to 1,020 dwelling units, based on a density of 29 du/ac to 60 du/ac. Subarea 5 would be subject to the Transition Zone Overlay, which would allow the existing uses to continue to operate under a Business/Office Park and C land use designation. Under the Transition Zone Overlay, Subarea 5 would yield a maximum of 43,500 square feet of commercial development and 980,000 square feet of business/office park.

The change to High Density Residential would be a significant break from the historical use of the area and has the potential to affect unrecorded historic-aged buildings in Subarea 5. Future projects proposed within Subarea 5 would require identification and evaluation of any resources over 45 years old in order to adequately assess potential impacts to historical resources under CEQA. Thus, historic impacts within Subarea 5 would be potentially significant.

#### **Subarea 6**

Subarea 6 encompasses approximately 11 acres, north of Subarea 5. The area has historically been used as agricultural ranching with a later use of industrial, and the current land use designation for Subarea 6 is Business/Office Park (City of Riverside 2007). Currently Subarea 6 contains Business/Office Park and commercial properties.

The CHRIS record search results indicate that there are no previously recorded resources within Subarea 6.

The HRI indicated that there were no recorded resources within Subarea 6.

A review of historic aerial photographs indicates that Subarea 6 was one large agricultural property, with one single-family residence and a cluster of outbuildings northeast of the intersection of Main Street and Garner Avenue. This residence was demolished circa 1938 and is within the extent of the Santa Ana River floodplain damage. By the 1953 aerial a new, larger single-family residence and barn outbuilding are relocated east along Garner Ave in the northeast corner of Subarea 6. That property persisted, unchanged until sometime between 2005 and 2009, when the current business park is constructed (NETR 2019; UCSB 2019).

The Northside Specific Plan would redesignate land uses in Subarea 6 to High Density Residential (HDR), which would yield 240 to 660 dwelling units, based on a density of 29 du/ac to 60 du/ac. Subarea 6 would be subject to the Transition Zone Overlay, which would allow the existing uses to continue to operate under a Business/Office

Park land use designation. Under the Transition Zone Overlay, Subarea 6 would yield a maximum of 718,700 square feet of business/office park. While the change to High Density Residential would be a significant break from the historical use of the area, a change in use will have a less-than-significant impact on historic resources under CEQA. Continuing the use of Subarea 6 as Business/Office Park also will have a less-than-significant impact for the purposes of CEQA.

### **Subarea 7**

Subarea 7 encompasses approximately 39 acres in the central portion of the SPA. The area has historically been used as agricultural ranching with a later use of low density residential and light industrial, and the current land use designation for Subarea 7 is Business/Office Park (City of Riverside 2007). Currently Subarea 7 contains open fields, very low density residential and several light industrial, automobile repair and transportation-related businesses.

The CHRIS record search results indicate that there is one previously recorded resource within Subarea 7: a historic refuse scatter (P-33-009006, CA-RIV-06350). The site was recorded in 1999 and was determined not eligible (Status Code 6). This site's status is unknown.

The HRI indicated that there were no recorded resources within Subarea 7.

A review of historic aerial photographs indicates that Subarea 7 was several agricultural properties, with a cluster of residential buildings at the T-intersection of Placentia Lane and Orange Street. East of Orange Street were mostly orchards, and west were open agricultural fields. One particularly large residence, outbuildings, and accompanying large property is located at the southwestern portion of Subarea 7 along Garner Road beginning in 1931. This property is bordered by a canal to the south. This particular residence along Garner Road appears within the extent of the Santa Ana River floodplain damage, though the properties along Orange Avenue appear unaffected by the flood. By the 1953 photograph, the Garner Road property appears to have changed to an industrial use. And more low-density residential properties appear along Orange Avenue. By the 1960s, the orange groves east of Orange Street disappear and are replaced by residential subdivision developments, outside the Subarea 7 boundaries. Residential properties north of the Placentia Lane, Orange Street intersection persist until sometime between 1968 and 1976. These single-family residences are gone by the 1976 photograph (NETR 2019; UCSB 2019).

The Northside Specific Plan would redesignate Subarea 7 to Medium Density Residential, to be consistent with the existing and surrounding land uses. Subarea 7 would yield 234 to 293 dwelling units, based on a density of 6 du/ac to 7.5 du/ac. Future projects proposed within Subarea 7 would require identification and evaluation of any resources over 45 years old in order to adequately assess potential impacts to historical resources under CEQA. Thus, impacts to historic resources in Subarea 7 would be potentially significant.

### **Subarea 8**

Subarea 8 encompasses approximately 190 noncontiguous acres in the central portion of the SPA. The area has historically been used as agricultural ranching with a later use of Public Park and Private Recreation, and the current land use designations for Subarea 8 are Public Park, Public Facilities/Institutions, Private Recreation, and Medium Density Residential (City of Riverside 2007).

The CHRIS record search indicated that there are no recorded resources within Subarea 8.

The HRI indicated that there were no recorded resources within Subarea 8.

According to Mermilliod’s 2005 Reconnaissance Survey and Context Statement for a Portion of the Northside, there are potentially four historic resource on the southwest portion of Subarea 8: the Spring Brook Golf Club, Reid Park, and two agricultural properties on Clark Street. Mermilliod notes that in the southeast portion of Subarea 8, along Clark Street there are two potential historic resources: “a large, Asian-owned persimmon farm” and the “well-known Pellisser Dairy” (Mermilliod 2005:50). She also writes that Spring Brook Golf Club officially opened as a 9-hole course in 1953, and became an 18-hole course in the mid-1960s. Reid Park, Mermilliod writes, was organized on 16 acres just east of the golf club in 1964 by Northside residents. Additionally, improvements to Reid Park are as follows:

Reid Park has been proved by transplanted field lighting from the Fremont Elementary School playground (late 1960s); the development of two additional fields (date unknown); the addition of picnic tables, turf, playground equipment, and asphalted parking (1969–70); permanent restroom facilities (1971); the grading and extension of parking and the addition of foot paths, trees, and playground equipment (1975); and a HUD-funded Community Center with a kitchen, patio, meeting and classrooms, basketball court, and swimming pool (1980s) (Mermilliod 2005:121).

Though the Spring Brook Golf Club and Reid Park were too recently constructed to be analyzed as historic resources by Mermilliod in 2005, both park and golf course, as well as several improvements to these properties, now meet or exceed the 45-year threshold for historic evaluation for the purposes of CEQA. Mermilliod does note that the introduction of the golf course and park were likely influenced by the increase in the residential development of the Northside Neighborhood and this is worthy of future analysis.

A review of historic aerial photographs indicates that the southeast portion of Subarea 8 consisted of at least two agricultural properties on either side of Clark Street, with several accompanying agricultural fields, which persist today. The northwest portion of Subarea 8 was historically agricultural fields, with a single structure or single-family residence along Garner Road, which appeared in the earliest available aerial photograph from 1930. This structure is present until sometime between 1980 and 1990. By the 1990 photograph, the northwest portion of Subarea 8 appears to be in the configuration of the Ab Brown Soccer complex, with parking lots and park buildings along Garner Road and Bartlett Avenue. The southwest portion of Subarea 8 was historically a large open agricultural field, with a single-family residence and ranch-related outbuildings at the east side of the Orange Street and Nash Street intersection. Though that property was unaffected by the 1938 flood, the floodplain scouring is visible throughout the southwest portion of Subarea 8 in the 1938 photograph. The property undergoes transformation between 1954 and 1962: the single-family residence and ranch-related outbuildings are demolished by 1954, and several irrigated golf course segments appear. By 1962, the entire site has been transformed into a golf course. East of the Spring Brook Golf Course, Reid Park and a single baseball field appear by 1966, with additional baseball fields by 1976 (NETR 2019; UCSB 2019).

The Northside Specific Plan would redesignate land uses in Subarea 8 to Open Space, Parks and Trails. The Northside Specific Plan would include approximately 175 acres of parkland within Subarea 8, with the option for a privately owned entity to partner with the City to enhance the existing Ab Brown Sports Complex. The park area could include a privately owned sports complex of approximately 40 acres of field area, which would connect seamlessly with Reid Park, public open spaces, the Springbrook Arroyo trail, and future housing. The Northside Specific Plan includes restoration and enhancement of the Springbrook Arroyo, which would become one of the main features of the Northside Specific Plan. This arroyo will vary in width between 100 feet to 200 feet for the entire length and will include habitat restoration to receive flood water. The arroyo would flow along its existing course, and some adjustments would be made to the course where it traverses the Northside’s central park in Subarea 8. A detailed description of the Springbrook Arroyo is included in Section 2.4.2.

Additionally, the City of Riverside was awarded a grant for the 7.58-acre Northside Heritage Meadows project within Subarea 8. The Northside Heritage Meadows project is an urban greening project that provides a place for nursery plantings for the Urban Conservation Corporation and agriculture/urban forestry workforce training. The project also provides for a 0.5-acre community garden, demonstration orchards, a community training facility, and public trails.

The Reid Park and the Spring Brook Golf Club sports/park complex, and associated park buildings in the southwest portion of Subarea 8 were officially opened in 1965, and therefore meet the 45-year age threshold for evaluation as historic resources for the purposes of CEQA. Changes to the buildings, structures, or landscape, including restoration of the Springbrook Arroyo and additional landscape components, will require the evaluation of properties over 45 years of age. In the southeast portion of Subarea 8, two properties over 45 years old were identified through aerial photographs. Future projects proposed within Subarea 8 would require identification and evaluation of any resources over 45 years old in order to adequately assess potential impacts to historical resources under CEQA. Thus, impacts to historic resources in Subarea 8 would be potentially significant.

### Subarea 9

Subarea 9 encompasses approximately 41 acres, south of Subarea 8. The area has historically been used as agricultural ranching with a later use of Private Recreation, and the current land use designation for Subarea 9 is Private Recreation (City of Riverside 2007).

The CHRIS record search indicated that there are no recorded resources within Subarea 9.

The HRI indicated that there were no recorded resources within Subarea 9.

According to Mermilliod's 2005 Reconnaissance Survey and Context Statement for a Portion of the Northside, there is potentially one historic resource in Subarea 9: the Spring Brook Golf Club. Spring Brook Golf Club officially opened as a 9-hole course in 1953, and became an 18-hole course in the mid-1960s. Though the Spring Brook Golf Club was too recently constructed to be analyzed as historic resources by Mermilliod in 2005, the golf course now meets the 45-year threshold for historic evaluation for the purposes of CEQA. Mermilliod does note that the introduction of the golf course was likely influenced by an increase in the residential development and settlement of the Northside neighborhood, and the golf course's associations are worthy of future analysis (Mermilliod 2005).

A review of historic aerial photographs indicates that Subarea 9 consisted of a large open agricultural field, related to a single-family residence and ranch-related outbuildings at the east side of the Orange Street and Nash Street intersection. Though that property was unaffected by the 1938 flood, the floodplain scouring is visible throughout Subarea 9 in the 1938 and 1939 photographs. Between 1953 and 1962, several irrigated golf course tees appear, which created a 9-hole course, then later an 18-hole course, that extended north into Subarea 8. Riverside Fire Station 6 present by 1962 (NETR 2019; UCSB 2019).

The Northside Specific Plan would redesignate Subarea 9 as commercial and residential space uses as the Northside Village Center. This area would serve as a neighborhood center for the Northside community, where people can live, shop, and enjoy recreational amenities, such as the Springbrook Arroyo. The Village Center would be located on the former golf course at the corner of Main Street and Columbia Avenue. The Village Center would yield up to 461,000 square feet of commercial space and 1,200 residential units. Additionally, the Northside Village Center would include approximately 10 acres, at the northeast corner of Orange and Columbia Streets, for institutional uses tailored towards the public's health and safety, such as a police facility, a medical facility, professional services, and/or a community center. The proposed redevelopment project for Subarea 9 has the potential to impact two identified historic-aged properties that will require evaluation for the purposes of CEQA: the Spring Brook Golf Club (circa 1953) and the Riverside Fire Station 6 (circa 1962). Impacts to historical resources within Subarea 9 would be potentially significant.

### Subarea 10

Subarea 10 encompasses approximately 71 acres of noncontiguous land along the eastern boundary of the SPA. The area has historically been used as mid-density residential and commercial properties along former US-395, and remains similar to the current uses: a mix of commercial and residential uses currently makes up the 2-mile-long corridor on West La Cadena Drive. The current land use designations for Subarea 10 are Business Office Park Commercial (City of Riverside 2007 and County of Riverside 2019).

The CHRIS record search results indicate that there are nine previously recorded resources within Subarea 10. Resources include two water conveyance systems (CA-RIV-04495 and CA-RIV-4787), and five single-family residential properties (P-33-006968, P-33-006969, P-33-006970, P-33-011538, and P-33-011539), one commercial building (P-33-012170), and one designation-unknown property (P-33-009966). According to the CHRIS results, the Upper and Lower Riverside Canal segment (CA-RIV-04495) and 3261 Strong Street (P-33-011539) appear eligible for the NRHP or CRHR (Status Code 3); the Riverside–Warm Creek Canal (CA-RIV-04787) appears eligible for local listing (Status Code 5); 1707 West La Cadena Drive (P-33-011538) and 1137 West La Cadena Drive (P-33-012170) appear not eligible (Status Code 6); 715 West La Cadena Drive (P-33-006968), 753 West La Cadena Drive (P-33-006969), and 781 West La Cadena Drive (P-33-006970) are all noted as “not evaluated” (Status Code 7); and finally P-33-009966 was not pulled and has no accompanying data or other identifying information. Two properties, 1707 and 1137 West La Cadena Drive (P-33-011538, P-33-012170), have been demolished.

The HRI indicated that there were three (3) additional recorded resources within Subarea 10 and updated the status codes for three (3) recorded resources. The additional resources were 1293 West La Cadena Drive and 1323 West La Cadena Drive, which have been determined ineligible for NRHP by consensus through Section 106 process – Not evaluated for CR or Local Listing (Status Code 6Y) and appear to be in place. The other resource was 1179 West La Cadena Drive, which was listed as 5S2 (individual property that is eligible for local listing or designation) for the 1905 house and 6Y (determined ineligible for NR by consensus through Section 106 process – Not evaluated for CR or Local Listing) for the 1945 commercial property; however, both buildings at 1179 West La Cadena Drive have been demolished and replaced with a modern commercial building and parking lot. The updated status codes are for 715 West La Cadena Drive, 753 West La Cadena Drive, and 781 West La Cadena Drive, which were marked as Status Code 7 (not evaluated) in the CHRIS results, but are all individual properties that are eligible for local listing or designation (Status Code 5S2) according to the HRI.

According to Mermilliod’s 2005 Reconnaissance Survey and Context Statement for a Portion of the Northside:

The current SR-91, which includes historic West La Cadena Drive and the former PE [Pacific Electric Railway Company] right-of-way was designated a portion of LRN 43 (defined in 1917), known as SR-18 (defined in 1931), and became a U.S. Highway (US 91) in 1933. It once ran from Long Beach to nearly Barstow, and by the late 1940s, the west side of historic La Cadena Drive between Strong and Chase Road, just north of the survey area, was a primary arterial street lined with residences and roadside commercial architecture. In June 1950, the State of California, Division of Highways constructed a 2.6-mile improvement to the route, adding a 4-lane divided highway from Russell Street to just north of the county line and initiating an effort to bypass Riverside’s surface streets with a modern freeway system. By the early 1950s, it was also signed as US 91 and US 395 (Mermilliod 2005: 117).

Mermilliod's rough context is corroborated by aerial photographs of Subarea 10 from 1931 through present. A few houses are present in the oldest available 1931 aerial, which are still present today including 715 West La Cadena Drive, 753 West La Cadena Drive, 781 West La Cadena Drive, 987 West La Cadena Drive, 1279 West La Cadena Drive, and 1337 West La Cadena Drive. While orchard dominated the west side of La Cadena Avenue, a mix of residential, commercial, and agricultural (orchard) properties lined the west side of West La Cadena Drive by the 1940s. By the 1950s, nearly all orchards south of Chase Road had been replaced by modest, single-family residential and small commercial lots. Changes to US 395/US 91 begin with the 1962 aerial, when the highway develops a system of overpasses, clover-leaf exit ramps, and elevated highway. This new highway-related construction demolished some residences and small commercial businesses near the major cross-streets, and in subsequent photographs, these lots are combined and turned into larger commercial properties with large, accommodating parking lots. Through the late 1960s, 1970s, and 1980s, single-family residences appear to decline, replaced by empty lot or combined lot-commercial businesses (Mermilliod 2005; NETR 2019; UCSB 2019).

The Northside Specific Plan would re-designate Subarea 10 as Freeway Mixed Use. Proposed land uses would include a residential and commercial uses that correspond to the existing and surround development. Subarea 10 would yield approximately 601,100 to 751,400 square feet of Business/Office Park and Commercial land uses and approximately 621 to 828 dwelling units (density of 18 du/ac to 24 du/ac). New commercial and office development would provide retail and employment options for residents in the adjacent urban neighborhoods. This land use designation would include other freeway-oriented commercial, office, hotels, and other uses that benefit from freeway visibility. Future residences in the freeway mixed use area would be positioned to avoid the freeway as the focal point of the urban communities. Building heights for mixed use residential development would range between three to five stories. The changes to zoning and redevelopment of Subarea 10 will affect at least three previously identified historical resources for the purposes of CEQA, and at least two historic-aged single-family homes and several commercial resources along the west side of West La Cadena Drive, identified through aerial imagery. Future projects proposed within Subarea 10 would require identification and evaluation of any resources over 45 years old in order to adequately assess potential impacts to historical resources under CEQA. Impacts to historical resources would be potentially significant within Subarea 10.

#### **Subarea 11**

Subarea 11 encompasses approximately 72 acres of noncontiguous land, located on either side of SR-60, at the south end of the SPA. The area has historically been used as residential and commercial properties, with some light industrial and transportation-related properties concentrated along Main Street, Market Street, and Orange Street. This use persists through present.

The CHRIS record search results indicate that there are five previously recorded resources within Subarea 11, and six previously recorded resources adjacent to Subarea 11. However, seven of these properties have been subsequently demolished, leaving only Riverside Lower Canal (CA-RIV-04791, P-33-004791) within Subarea 11, and 3804-3812 Ridge Road (P-33-013207), 2869 Market Street (P-33-013209), and 2909 Market Street (P-33-013210) immediately adjacent to Subarea 11. All of these properties were determined ineligible for the NRHP and CRHR (Status Code 6). According to the Riverside County list of NRHP-listed sites, there are no NRHP-listed properties within the SPA, however one property, the Mission Court Bungalows (NRHP # 93000549), at 3355-3373 Second Street and 3354-3362 First Street, is adjacent to Subarea 11.

The HRI indicated that there were 52 additional recorded properties within Subarea 11, and 25 additional recorded properties that are immediately adjacent to Subarea 11 (but outside of the Northside SPA). All of these properties are located in or near the Subarea 11 section south of SR-60. Of the 52 additional properties inside Subarea 11, 1

property was an individual property that is eligible for local listing or designation (Status Code 5S2); 2 properties were determined ineligible for local listing or designation through local government review process, but may warrant special consideration in local planning (Status Code 6L); 1 was found ineligible for NRHP, CRHR, or local designation through survey evaluation (Status Code 6Z); and 48 were identified in Reconnaissance Level Survey, but not evaluated (Status Code 7R). Of the 25 additional properties immediately adjacent and abutting Subarea 11, 3 were individual properties that are listed or designated locally (Status Code 5S1); 12 properties were determined ineligible for local listing or designation through local government review process, but may warrant special consideration in local planning (Status Code 6L); 5 properties were found ineligible for NRHP, CRHR or local designation through survey evaluation (Status Code 6Z); 1 property was determined ineligible for NR pursuant to Section 106 without review by SHPO (Status Code 6U); two (2) properties were determined ineligible for the NRHP by consensus through Section 106 process, but have not been evaluated for CRHR or local listing (Status Code 6Y); and 4 were identified in Reconnaissance Level Survey, but not evaluated (Status Code 7R).

The four local eligible properties at 3668 Poplar Street (5S2), 2691 Orange Street (5S1), 2709 Orange Street (5S1), and 2743 Orange Street (5S1), are historic resources for the purposes of CEQA. The majority of identified but not yet evaluated properties (7R) are residential and commercial businesses along Main Street, southwest of SR-60 and northeast of 1st Street. The two properties designated ineligible for the NRHP, but not evaluated at the CRHR or local level (6Y), or that were deemed ineligible but warrant special consideration in local planning (6L) are located along Orange Street may merit re-evaluation to consider CRHR or local significance and should be considered on a case-by-case basis.

According to Mermilliod 2005, the Main Street industrial quarter was first subdivided in 1906 and developed into a commercial industrial dominated area. A review of historic aerial photographs from 1931 and 1938 indicates that the north section Subarea 11 was historically used for agriculture (orchards) and water conveyance, and had sparse farm-related residential properties. The south section of Subarea 11 was historically used as the City' of Riversides industrial corridor, with single-family residences, commercial properties, and light industrial properties, with the former property of the Southern Sierras Power Company (later Callectric) and a Pacific Electric railroad wye, tracks, and maintenance yard closer for 1st Street. By the time of the 1954 photograph, all of the orchards the north section Subarea 11 have been removed and replaced with residential subdivisions (Vista Ave) or open agricultural fields. In the south section of Subarea 11, many properties along Main Street appear either as commercial, light industrial, or multifamily residences (multiple houses on a single lot). The railroad wye and maintenance yard are still visible at the 1st Street. Mermilliod 2005, as well as a historic aerial from 1962, describe the impact of the construction of SR 60, bisecting the areas and demolishing residential buildings in the north portion of Subarea 11. In the south section of Subarea 11, commercial and light industrial properties dominate along Main Street and Orange Street, and the area to the east becomes completely infilled with residential properties; however, the railroad tracks appear in disuse. Between 1968 and 1976, the tracks and most of the support buildings in the maintenance yard within Subarea 11 appear removed. Between 1980 and 1990, the north section of Subarea 11 appears to have had all residential properties removed and the older water conveyance system replaced with a new concrete-lined channel (Mermilliod 2005; NETR 2019; UCSB 2019).

The Northside Specific Plan would redesignate Subarea 11 as Mixed-Use Neighborhoods, which would allow for commercial, office, and residential development. Subarea 11 would yield approximately 627,000 square feet of office and commercial development, and 1,278 to 1,704 dwelling units. The North Main Street area is currently a commercial business corridor with multifamily residential units and auto-related businesses. This area would transition from a commercial business corridor to Mixed Use, which would allow for commercial, office, and 18 to 24 dwelling units allowed per acre. Future development within the North Main Street Mixed Use area shall be complimentary to the area's existing "main street" character and historic architecture. The remaining Mixed Use area in the Northside Specific Plan is approximately 35 acres of vacant land at the northwest corner of the I-215 and SR-60 freeways.

This parcel is currently proposed for development by the property owner and would result in approximately 482 dwelling units, hotels, retail services, and office uses. The proposed change in use and future development of the north section of Subarea 11 does not propose impacts to any recorded or observed historical resources for the purposes of CEQA. The proposed change in use is compatible with the current and historical uses of the south section of Subarea 11. The four locally eligible properties identified in the HRI are located at 3668 Poplar Street (5S2), 2691 Orange Street (5S1), 2709 Orange Street (5S1), and 2743 Orange Street (5S1), are historic resources for the purposes of CEQA and direct and indirect impacts must be assessed. Future development of the south section of Subarea 11 will need to consider these resources before implementation. Future development will also need to consider the properties identified but unevaluated. The majority of identified but not yet evaluated properties (7R) are residential and commercial businesses along Main Street, southwest of SR-60 and northeast of 1st Street. The two properties designated ineligible for the NRHP, but not evaluated at the CRHR or local level (6Y), or that were deemed ineligible but warrant special consideration in local planning (6L), are located along Orange Street may merit re-evaluation to consider CRHR or local significance and should be considered on a case-by-case basis. Thus, historic impacts within Subarea 11 would be potentially significant.

#### **Subarea 12**

Subarea 12 encompasses approximately 637 acres of noncontiguous land in the eastern and southern portions of the SPA. The area has historically been used as agricultural, then later residential properties and the current land uses within Subarea 12 include Medium Density Residential, Business/Office Park, Downtown Specific Plan, Industrial, Semi-Rural Residential, Commercial, and Office (City of Riverside 2007 and County of Riverside 2019).

The CHRIS record search results indicate that there are 58 recorded resources within Subarea 12, consisting of single-family properties and water conveyance systems. Of these, 4 resources appear eligible for the NRHP or CRHR (Status Code 3); 51 resources appear not eligible (Status Code 6); and 3 resources appears to have been identified but not evaluated (Status Code 7). The three recorded resources that appeared eligible were the Ridgely/Clinton Hickock/William Boyd house at 3261 Strong Street (P-33-011539), the Stevenson House at 3720 Stoddard Avenue (P-33-012135), Upper Riverside Canal (CA-RIV-04495/P-33-00495), and Riverside Lower Canal (CA-RIV-04791/P-33-004791).

The HRI indicated that there were 275 additional recorded resources within Subarea 12. Of the 275 properties inside Subarea 12, 1 was an individual property determined eligible for NRHP by a consensus through Section 106 process, and listed in the CRHR (2S2); 2 were individual properties that are listed or designated locally (Status Code 5S1); 3 were individual properties that are eligible for local listing or designation (Status Code 5S2); 177 properties were determined ineligible for local listing or designation through local government review process, but may warrant special consideration in local planning (Status Code 6L); 63 properties were found ineligible for NRHP, CRHR, or local designation through survey evaluation (Status Code 6Z); 3 were determined ineligible for NRHP pursuant to Section 106 without review by State Historic Preservation Officer (Status Code 6U); 8 properties were determined ineligible for NRHP by consensus through Section 106 process, but have not been evaluated for CRHR or local listing (Status Code 6Y); and 17 were identified in Reconnaissance Level Survey, but not evaluated (Status Code 7R).

A review of historic aerial photographs indicate that multiple areas that make up Subarea 12 began as mostly agricultural with a few clusters of residential properties along Strong Street, Columbia Avenue, Main Street, Fairmount Boulevard, and Stoddard Avenue in the 1930s. By the mid-twentieth century, there is a boom of residential subdivisions in Subarea 12 along streets such as Marsh Way, Mulberry Street, Post Street, Powell Way, Elliott Drive, Sutter Way, Witt Avenue, Stansell Drive, Stephens Avenue, and Shamrock Avenue. The area continues

to densify in the 1960s, likely with some influence by the completion of SR-60, SR-91/US 395, Spring Brook Golf Course, and Reid Park. Properties within Subarea 12 have another residential subdivision growth period visible in the 1976 and 1980 photographs—the subdivisions established in the beginnings of the 1960s expanded and added side streets, branching off Main Street, Columbia Avenue, and Strong Street. Changes to Subarea 12 are few after the mid-1990s. The only development of note is the La Rivera residential subdivision at Strong Street and Rivera Street, which was added between 2005 and 2007 (NETR 2019; UCSB 2019).

The Northside Specific Plan would redesignate Subarea 12 to Medium Density Residential. The proposed land use would provide consistency with existing Medium Density Residential land uses within the SPA. Subarea 12 would yield approximately 5,176 dwelling units total, but 4,760 dwelling units are already permitted within Subarea 12. The proposed change in use is compatible with the current and historical uses of Subarea 12. The four recorded resources identified in the CHRIS record search that appeared eligible are the Ridgecourt/Clinton Hickock/William Boyd house at 3261 Strong Street (CHRIS Status Code 3; HRI Status Code 2S2), the Stevenson House at 3720 Stoddard Avenue (CHRIS Status Code 3; HRI Status Code 2S2), Upper Riverside Canal (Status Code 3), and Riverside Lower Canal (Status Code 3). The six additional eligible properties identified in the HRI are 3405 Center Street (5S2), 1761 Orange Street (5S1), 3787 Shamrock Avenue (5S2), 3260 Strong Street (5S1), 3676 Strong Street (5S2), and 2357 Wilshire Street (5S2). These are all considered historical resources for the purposes of CEQA, and future development of Subarea 12 that may potentially affect these historic resources would need to assess direct and indirect impacts. The identified but not yet evaluated properties (7R) are mostly residential properties and a few churches along Chase Road, Columbia Avenue, Kemp Street, Northbend Street, Orange Street, Shamrock Avenue, Spruce Street, Stansell Drive, Stoddard Avenue, and Strong Street. Future projects proposed within Subarea 12 would require identification and evaluation of any resources over 45 years old in order to adequately assess potential impacts to historical resources under CEQA. Thus, impacts to historical resources would be potentially significant within Subarea 12.

#### **Subarea 13**

Subarea 13 encompasses approximately 39 acres in the eastern portion on the SPA, east of the Northside Village Center (Subarea 9). The area was historically used as orchard and agricultural land with some single-family residential properties, then later developed in to large-scale, multibuilding apartment/townhome complexes in the 1970s. The current land use designation for Subarea 13 is Medium High Density Residential (City of Riverside 2007).

The CHRIS record search results indicate that there is one previously recorded resource in Subarea 13, 1004 Orange Street (P-33-005712), single-family residence and outbuilding determined ineligible for the NRHP and CRHR (Status Code 6). The property described in the site record, a 1920s Craftsman bungalow, appears to have either been demolished and replaced with another single-family residence, or has had significant additions on all elevations.

The HRI indicated that there were no additional recorded properties within Subarea 13.

A review of historic aerial photographs indicates that Subarea 13 was historically used for agriculture and had sparse residential properties. The west section of Subarea 13 along Main Street appears as an orange orchard on the irregular, large parcel from 1931 through 1954, but in the 1959 photograph and later, the orchard appears to have thinned out and fallen into disuse. The orchard becomes an empty lot by the 1966 photograph and the current apartment townhome complex appears by the 1976 photograph. At the east section of Subarea 13 along Columbia Avenue and Orange Street, the area appears as agricultural tracts, northeast of several narrow residential tracts

along Columbia Avenue, and east of a single residence along Orange Street in the 1930s. These properties along Orange Street and Columbia and the agricultural tracts remain unchanged until sometime between the 1968 and 1976 photograph, when all properties except 1004 Orange Street are demolished and replaced with a large-scale residential subdivision, with tightly arranged single-family residences and two townhome/apartment complexes. The house at 1004 Orange Street appears to have been demolished or significantly added on to between 1990 and 1995 (NETR 2019; UCSB 2019).

The Northside Specific Plan does not include any changes to Subarea 13. Subarea 13 would yield a maximum of 566 dwelling units. The CHRIS and HRI record search results indicate only one previously recorded resource in the area, which has been determined ineligible for the NRHP or CRHR and therefore is not a historical resource for the purposes of CEQA. All development since the 1970s has demolished and replaced any potential unrecorded historical resources. Thus, impacts to historical resources would be less than significant within Subarea 13.

### **Subarea 14**

Subarea 14 encompasses approximately 37 acres of land in the southern portion of the SPA. The area was historically used as the location of the Fairmont School (Fremont School, since 1970), and the current land use designation for Subarea 14 is Public Facilities/Institutional (City of Riverside 2007). Subarea 14 is already developed with the Fremont Elementary School.

The CHRIS record search results indicate that there are no recorded resources within Subarea 14.

The HRI indicated that there was one recorded resource within Subarea 14, a 1943-built building at 1922 Main Street. This resource was given a Resource Status Code of 6L, indicating it was determined ineligible for local listing or designation through local government review process, but may warrant special consideration in local planning. This resource was likely demolished in the 1960s or early 1970s.

According to Mermilliod's 2005 *Reconnaissance Survey and Context Statement for a Portion of the Northside*, the original building for the Fremont Elementary School (sometimes signed "Fairmont School" in maps) was located at 1925 Orange Street and built in 1917. The school was added on to several times, but the school's new buildings and outbuildings were damaged in a 1949 fire; the 1917 building was demolished in 1967. The new Fremont Elementary School was rebuilt in 1969–1970 (Mermilliod 2005).

A review of historic aerial photographs corroborates Mermilliod's timeline. Historic aerials note the presence of two single-family residences in the southwestern section of Subarea 14, along Main Street. These residences persist until 1968 when they are demolished. Historic aerials do not indicate another historic resource in Subarea 14 (NETR 2019; UCSB 2019).

The Northside Specific Plan does not include any changes to the Public Facilities and Institutional Uses designation in Subarea 14. Subarea 14 can accommodate 2 million square feet of public facility/industrial development. This land use designation provides for schools, hospitals, libraries, utilities, and government institutions. Religious assembly and day care uses may be allowed within this designation. Specific sites for public/semipublic uses are subject to discretionary approval under the Zoning Ordinance. Because there are no proposed changes to the use of Subarea 14, and no new or previously recorded historical resources within Subarea 14, future development of this area would have a less-than-significant impact on historical resources.

### Subarea 15

Subarea 15 encompasses approximately 148 acres of noncontiguous land in the southwest portion of the SPA and the northwest portion of the SPA, adjacent to the Santa Ana River. The area was historically used as the Riverside Fairgrounds site until 1930, then De Anza Park/Riverside Fairgrounds Racetrack until the 1960s, when SR-60 was erected just south of Subarea 15. Between 1980 and 1990 the region became Business/Office Park. The section along Strong Street was historically single-family residential until sometime between 2005 and 2009 when the Patricia Beatty Elementary School was erected. The current land use designations for Subarea 15 include 137 acres of Business/Office Park and 11 acres of Medium Density Residential (City of Riverside 2007).

The CHRIS record search results indicate that there are six previously recorded resources within Subarea 15. All six resources appear not eligible for listing (Status Code 6), and have been subsequently demolished.

The HRI indicated that there were no additional recorded properties within Subarea 15.

According to Mermilliod's 2005 Reconnaissance Survey and Context Statement for a Portion of the Northside, the Riverside County Fair was held in the Subarea 15 area from 1915, relocating from its previous location at Chemawa Park on Magnolia Avenue. This became the Southern California Fair in 1918 and the last Southern California Fair held at the Riverside Fairgrounds was in 1930 (Mermilliod 2005).

A review of historic aerial photographs indicated that the fairgrounds remained well-kept until the 1960s, when SR-60 bisected the area between the fairgrounds and Fairmount Park. The area remained underdeveloped until sometime between 1980 and 1990 when it was developed into a large-scale office park. The area along Strong Street appeared as single family residential with long, north-south-oriented lots, relatively unchanged from 1931 through 2005. Between 2005 and 2009, some of these homes are demolished and replaced with the large Patricia Beatty Elementary School campus (NETR 2019; UCSB 2019).

The Northside Specific Plan would redesignate the 11 acres of Medium Density Residential as Public Facility/Institutional, and the remaining 137 acres of Subarea 15 would remain as Business/Office Park. Subarea 15 would yield a total of 11 million square feet of business/office park development and approximately 480,000 square feet of public facilities development (see Subarea 14 for permitted uses). The Business/Office Park designation within Subarea 15, north of SR-60 on the west side of Main Street and east side of Market Street would remain, but would include minor land use adjustments to ensure the properties continue to provide for single or mixed light industrial uses that do not create nuisances due to odor, dust, noise, or heavy truck traffic. Suitable uses include corporate and general business offices, research and development, light manufacturing, light industrial, and small warehouse uses (up to 50,000 square feet per site).

As there are no extant historic resources within Subarea 15 and the entirety of Subarea 15 was redeveloped between 1980 and 2009, future projects are not expected to impact any recorded or expected historical resources for the purposes of CEQA. Thus, impacts to historical resources would be less than significant within Subarea 15.

### Subarea 16

Subarea 16 encompasses approximately 8 acres of land at the north end of the SPA. The area was historically used as agricultural/ranching, and the current land use designations for Subarea 16 include Business/Office Park and Public Facilities/Institutions (City of Riverside 2007).

The CHRIS record search indicates that there are two previously recorded resources within Subarea 16: CA-SBR-09814/H/CA-RIV-06237/H (36-009814/33-08752), which is a multicomponent lithic scatter and historic refuse scatter; and CA-SBR-1984 (33-1984), the Trujillo Adobe Historic Site. Both sites have a Resource Status Code of 7, indicating they have not been formally evaluated, or need reevaluation to modern standards.

The HRI also identified the Trujillo Adobe and indicated that there were no additional recorded resources. The HRI updated the Trujillo Adobe Status Code to 7L (State Historical Landmarks 1-769 and Points of Historical Interest designated prior to January 1998 – Needs to be reevaluated using current standards).

The City of Riverside Latino Historic Context Statement, prepared in 2018, indicates that the Trujillo Adobe (circa 1863) was the final building remnant of the original La Placita de los Trujillos/San Salvator community, the community established by *genízaro* colonists on the Bandini Donation. The other remaining remnants of La Placita de los Trujillos/San Salvator include a bell (removed to a new location) and a cemetery. The Trujillo Adobe was the first Riverside building to receive landmark designation for its association with Latino heritage. Howell-Ardila’s 2018 context also proposes reclassifying the Trujillo Adobe as Historic Resource Code 3S (appears eligible for NRHP as an individual property through survey evaluation), and indicates that the Trujillo Adobe appears eligible at the national, state, and local level (Howell-Ardila 2018: 228; Appendix B).

Howell-Ardila’s 2018 context also indicates that the Trujillo Adobe is the oldest surviving building from the American Period (1849-present) in Riverside, and predates the founding of the City of Riverside and the John Wesley North colony by nearly a decade. The Trujillo Adobe (RIV-009) was added to the Riverside County Points of Historical Interest in 1968 and is coded as requiring an updated evaluation to modern documentation standards (Status Code 7L). It was built between 1845 and 1863 and is one of the earliest remains of the village of La Placita de los Trujillos. Accounts vary, but it was likely the original home of Lorenzo Trujillo, a founding *genízaro* colonist of La Placita de los Trujillos/San Salvator, though it is also possible that this adobe was constructed after the 1862 flood that devastated the terrain of this area. It was subsequently occupied by members of the Trujillo family. The adobe, as of its most recent archaeological record from 1982, consisted of three remaining adobe construction walls under a protective modern roof (Howell-Ardila 2018). The Trujillo Adobe is especially rare and was identified as such in 2017 by the Hispanic Access Foundation, based in Washington, DC, as one of the most significant Latino sites in the United States:

The Trujillo Adobe is a site that demonstrates the connections and contributions that Latino communities had as part of western expansion, specifically the settlement of California. The adobe is the last standing remnant of the Trujillo legacy and one of the first nonindigenous settlements in this region. It is recognized as a cultural landmark by the City of Riverside and a potential site of high significance as part of the Old Spanish National Historic Trail by the Department of the Interior (Galaviz et al. 2017).

The Northside Specific Plan proposes to redesignate the Subarea 16 as “Trujillo Adobe Heritage Village.” The Trujillo Adobe would be restored in its existing location, and a historic interpretation village would be developed around it. Trujillo Adobe Heritage Village would include new buildings that replicate La Placita’s historic past (the cantina, schoolhouse, etc.), which would be part of a museum/interpretive center and retail and dining options. Subarea 16 would accommodate 36,000 square feet of retail/commercial space, and 9,300 square feet (or 0.21 acres) for the adobe, cantina, schoolhouse, and museum/interpretive center. Trujillo Adobe Heritage Village would also feature a citrus grove to serve as a natural backdrop to the Trujillo Adobe.

Future development and restoration of the Trujillo Adobe and its historic setting has the potential to cause a significant impact to an important historical resource. Thus, impacts to historical resources would be potentially significant within Subarea 16.

### **Subarea 17**

Subarea 17 encompasses 5 acres of land located on the east and west sides of Main Street, near Strong Street. The area was historically used as small-scale commercial, orchards, and single-family residences lining Main Street, and its current use is similar, but now lacks the historical orchards.

The CHRIS record search results indicate that there are no recorded resources within Subarea 17.

The HRI indicates that there are 11 previously recorded properties within Subarea 17. These are mostly small-scale commercial or single-family residential properties with construction dates ranging between 1916 and 1946. Five properties were determined ineligible for local listing or designation through local government review process, but may warrant special consideration in local planning (Status Code 6L); four properties were found ineligible for NRHP, CRHR, or local designation through survey evaluation (Status Code 6Z); and two were identified in Reconnaissance Level Survey, but not evaluated (Status Code 7R).

Mermilliod's 2005 Reconnaissance Survey and Context Statement for a Portion of the Northside indicated these properties exhibit the shift from rural neighborhood planning to urban neighborhood planning between the 1910s and 1950s as the area grew in density. While Mermilliod regularly uses these properties as examples in her context, she ultimately deemed all properties in this corridor too compromised by alterations (Mermilliod 2005: Appendix III).

Historic aerial photography indicates that the area remains relatively unchanged in use and retains several of its building stock from the earliest available 1931 photograph. Major changes include the changes and rebuilding of the Fremont Elementary School in the late 1960s, and the post-2010 redevelopment of 1710 Main Street into a larger commercial property (NETR 2019; UCSB 2019).

There are no significant changes proposed to the use of Subarea 17. Thus, impacts to historical resources within Subarea 17 would be less than significant.

### ***Impact Summary***

In summary, allowed future development per the proposed Northside Specific Plan would result in potentially significant impacts related to known historical resources and potential historic resources. More specifically, changes in development allowed in Subareas 1 to 5, 7 to 12, and 16 would result in potentially significant impacts to historic resources (**Impact CUL-1**). Due to the conditions and lack of changes in allowed development in Subareas 6, 13 to 15, and 17, potential impacts to historic resources in these areas would be less than significant.

The Trujillo Adobe is a significant historical resource. The proposed designation of a Trujillo Adobe Heritage Village and the associated anticipated restoration of the Trujillo Adobe also has potential to result in a significant historic resource impact (**Impact CUL-2**).

***Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?***

**Potentially Significant.** As a result of the CHRIS record search, 343 previously recorded cultural resources were identified within the records search area, 101 of which are located within the SPA. Refer above for information regarding recorded sites by Subarea. Of the recorded sites, 17 are archaeological resources and include the following:

- Three prehistoric resources: P-36-019814/CA-SBR-013176, P-36-019820/CA-SBR-013180, and P-029039/CA-SBR-029039. All three prehistoric resources were determined ineligible for the NRHP and CRHR (Status Code 6).
- Twelve historical archaeological resources: P-33-008650/CA-RIV-06166, P-33-009006/CA-RIV-06351, P-36-006086/CA-SBR-06086, P-36-060235, P-36-019808, P-36-019809, P-36-019815, P-33-004299/CA-RIV-04299, P-33-008651/CA-RIV-06167, P-33-008754/CA-RIV-06238, P-33-008755/CA-RIV-06239, and P-33-014953. Of these, 8 historical archaeological resources were determined ineligible for the NRHP and CRHR (Status Code 6), 1 resource requires re-evaluation (Status Code 7), and 3 resources have unknown statuses.
- One multi-component resource with both prehistoric and historic components. The single multicomponent site rests on the county line of Riverside and San Bernardino Counties. Because of this, the information centers each assigned the resource a primary number that correlates with their county. Therefore, for the purposes of this analysis, resource P-33-08752/CA-RIV-06237 (Riverside County) is the same as resource P-36-09814/CA SBR-09814/H (San Bernardino County). This resource has not been formally evaluated (Status Code 7).
- One historical isolate, P-36-060252, as an isolate does not constitute a site by California definition, and, therefore, is not significant a resource under CEQA, is ineligible for the NRHP and CRHR (Status Code 6).

Of the 17 previously recorded archaeological resources identified within the SPA, 12 have been determined ineligible for the NRHP and CRHR. Although archaeological sensitivity within the SPA is considered low based on the CHRIS records search results, the NAHC Sacred Lands File search, and a review of building development for each property, it is possible that intact subsurface archaeological deposits are present. For these reasons, the proposed SPA should be treated as potentially sensitive for archaeological resources, as these resources may be capped beneath extant buildings or parking lots. If such unanticipated discoveries are encountered, impacts to archaeological resources could be potentially significant (**Impact CUL-3**).

Three historical archaeological resources (P-33-008650/CA-RIV-06166, P-33-004299/CA-RIV-04299, and P-33-008651/CA-RIV-06167), including one multicomponent resource, P-33-08752/CA-RIV-06237 (Riverside County), which is the same as resource P-36-09814/CA SBR-09841 (San Bernardino County), has not been evaluated to determine if they are significant resources under CEQA and consequently, future project-related activities could result in significant impacts to these known archaeological resources (**Impact CUL-4**).

***Would the project disturb any human remains, including those interred outside of dedicated cemeteries?***

**Less-Than-Significant Impact.** No prehistoric or historic burials were identified within the SPA as a result of the records searches. However, in the unexpected event that human remains are found, those remains would require proper treatment, in accordance with applicable laws. The discovery of human remains would require handling in accordance with California Public Resources Code 5097.98, which states that in the event that human remains are discovered during construction, construction activity shall be halted, and the area shall be protected until

consultation and treatment can occur as prescribed by law (**CM-CUL-1**). Compliance with these existing regulations would ensure that impacts to human remains resulting from the proposed project would be **less than significant**. No mitigation is required.

### 3.4.5 Mitigation Measures

**MM-CUL-1 Identification and Protection of Historical Resources.** Prior to issuance of any demolition, grading, or building permit within the Northside Specific Plan, the City Historic Preservation Officer or Qualified Designees of the applicable jurisdiction shall determine if a historic built environment resource (e.g., buildings, structures, and objects) over 45 years of age has potential to be affected by the proposed demolition activities. If a potential historic resource is identified, a qualified architectural historian who meets the Secretary of the Interior’s Professional Qualification Standards (36 CFR 61) shall record and evaluate any properties over 45 years old that have not been previously evaluated, or require evaluation updates due to the passage of time or changes to baseline conditions. The qualified professional will: (1) review current California Historical Resources Information System (CHRIS) records search and Historic Resources Inventory (HRI) data to ensure that previously recorded resources are identified; (2) survey the project site for potential historical resources and document the resource(s) with notes and photographs; (3) record and evaluate any potential resources, including completion of adequate background and archival research on applicable properties, establishment of an appropriate historic context, application of state and local designation criteria, and preparation of the appropriate set of State of California Department of Parks and Recreation Series 523 Forms (DPR forms); and (4) conduct an assessment of potential impacts to any identified historical resources in consideration of project-related activities that may result in substantial adverse change to the significance of an historical resource. Based on this impacts assessment and consistent with the applicable City of Colton Municipal Code Chapter 15.40 Historic Preservation and City of Riverside Municipal Code Chapter 20, as applicable, the City shall commit to avoiding historical resources or ensuring that all project-related activities with the potential to impact historic resources are in conformance with the Secretary of the Interior’s Standards for the Treatment of Historic Properties (NPS 2017) to the extent feasible.

**MM-CUL-2 Trujillo Adobe Historic Preservation.** Prior to implementation of any demolition, building or grading permit issuance related to the Trujillo Adobe or its immediate surroundings, the City of Colton shall ensure the applicant has retained the services of qualified historic preservation specialists to assist with additional analysis, documentation, project design review, and consultation with key local stakeholders in consideration of the proposed Trujillo Adobe restoration. The following steps shall be implemented prior to issuance of permits related to the Trujillo Adobe or adjacent properties:

- **Establish a Required Study Boundary.** The Cities of Riverside and Colton shall establish a study boundary around the Trujillo Adobe that triggers consideration of the adobe in projects that fall within the established boundary. When establishing the boundary, it is important to consider potential indirect effects from vibration and visual intrusions to the resource’s setting. Prior to implementation of any project within the established study boundary, the applicant shall retain a qualified historic preservation specialist to assess the potential for indirect impacts to the adobe as a result of adjacent construction activities, including the potential for groundborne vibration and visual intrusions.

- **Updated Significance Evaluation.** The applicant shall retain a qualified architectural historian to prepare a detailed historical significance evaluation for the Trujillo Adobe in consideration of existing conditions as well as previously prepared resource documentation. The evaluation shall include a detailed historic context statement for the adobe that is developed thorough archival research. This evaluation should identify the specific features of the Trujillo Adobe that contribute to the resource’s historical significance, including its setting, paths of circulation, materials, and related features and spaces. Likewise, the report shall identify features that do not contribute to the resource’s historical significance, or fall outside the Trujillo Adobe’s period of significance (which must be clearly defined in the evaluation). The Trujillo Adobe shall be evaluated in consideration of City, County, California Register of Historical Resources, and National Register of Historic Places designation criteria and integrity requirements. Detailed photographs of the interior, exterior, and setting shall be included as part of the evaluation. If warranted, the report shall include recommendations for additional archival-level documentation prior to project implementation. The significance evaluation shall be subject to the approval of the City Historic Preservation Officer or Qualified Designees.
- **Project Plan Development.** The applicant shall retain a qualified historic preservation architect/engineer (ideally with experience in adobe restoration) to assist in the development of the proposed restoration plans. These professionals may recommend preparation of additional studies in order to fully understand project-specific constraints. Development of the proposed project plans will consider the findings and recommendations of the updated significance evaluation with regard to retention of important character-defining features, historic materials, and historical connections; and will also consider feedback from local stakeholders with a vested interest in the Trujillo Adobe and its future. The project plan shall be subject to the approval of the City Historic Preservation Officer or Qualified Designees.
- **Project Plan Review.** The applicant shall retain a qualified architectural historian to review the proposed design plans for conformance with the Secretary of the Interior’s Standards for the Treatment of Historic Properties. The architectural historian shall provide feedback in the form of a conformance review memorandum that provides an assessment of how the project meets the Standards, or likewise, does not meet the Standards. Based on this feedback, the applicant shall make adjustments (as warranted) to existing project plans in order to be in conformance with the Standards and avoid impacts to historical resources.
- **Development of a Protection Plan.** Upon finalization of proposed project design plans, the applicant shall work with historic preservation professionals to develop a protection plan for the Trujillo Adobe and any associated historical resources. The plan should detail methods for protecting the adobe and its important historical features from inadvertent damage during construction-related activities, in consideration of adjacent construction and stabilization of the adobe building. Issues to consider include impacts resulting from vibration, dust and debris, and heavy machinery. The plan should also detail specific protection/safety measures for working in and around historic adobe structures. The protection plan shall be subject to the approval of the City Historic Preservation Officer or Qualified Designees.

**MM-CUL-3a On-call Project Archaeologist:** Prior to the issuance of a grading permit, the Property Owner/Developer shall provide a letter from a certified archaeologist and paleontologist stating that the Property Owner/Developer has retained these individuals, and that the archaeologist and paleontologist shall be on call during all grading and other significant ground-disturbing activities in native sediments.

**MM-CUL-3b Treatment and Disposition of Cultural Resources:** In the event that Native American cultural resources are inadvertently discovered during the course of grading for this project, the following procedures will be carried out for treatment and disposition of the discoveries:

1. **Consulting Tribes Notified:** Within 24 hours of discovery, the consulting tribe(s) shall be notified via email and phone. The developer shall provide the City of Riverside Community & Economic Development Department or applicable jurisdiction evidence of notification to consulting tribes. Consulting tribe(s) will be allowed access to the discovery, in order to assist with the significance evaluation. Consulting tribe(s) will be allowed access to the discovery, in order to assist with the significance evaluation.
2. **Temporary Curation and Storage:** During the course of construction, all discovered resources shall be temporarily curated in a secure location on site or at the offices of the project archaeologist. The removal of any artifacts from the project site will need to be thoroughly inventoried with any tribal monitor providing oversight of the process.
3. **Treatment and Final Disposition:** The landowner(s) shall relinquish ownership of all cultural resources, including sacred items, burial goods, and all archaeological artifacts and non-human remains, as part of the required mitigation for impacts to cultural resources. The applicant shall relinquish the artifacts through one or more of the following methods and provide the City of Riverside Community & Economic Development Department or applicable jurisdiction with evidence of same:
  - a. Accommodate the process for on-site reburial of the discovered items with any consulting Native American tribes or bands. This shall include measures and provisions to protect the future reburial area from any future impacts. Reburial shall not occur until all cataloguing and basic recordation have been completed.
  - b. A curation agreement with an appropriate qualified repository within Riverside County or San Bernardino County, as applicable, that meets federal standards per 36 CFR Part 79 and therefore will be professionally curated and made available to other archaeologists/researchers for further study. The collections and associated records shall be transferred, including title, to an appropriate curation facility, to be accompanied by payment of the fees necessary for permanent curation.
  - c. If more than one Native American tribe or band is involved with the project and cannot come to a consensus as to the disposition of cultural materials, they shall be curated at the Western Science Center or Riverside Metropolitan Museum by default.
  - d. At the completion of grading, excavation, and ground-disturbing activities on the site, a Phase IV Monitoring Report shall be submitted to the applicable jurisdiction documenting monitoring activities conducted by the project archaeologist and any Native American Tribal Monitors within 60 days of completion of grading. This report shall document the impacts to the known resources on the property; describe how each mitigation measure was fulfilled; document the type of cultural resources recovered and the disposition of such resources; provide evidence of the required cultural sensitivity training for the construction staff held during the required pre-grade meeting; and, in a confidential appendix, include the daily/weekly monitoring notes from the archaeologist. All reports produced will be submitted to the applicable jurisdiction, Eastern Information Center, and interested tribes.

**MM-CUL-3c: Cultural Sensitivity Training:** The Secretary of Interior Standards certified archaeologist and any Native American Tribal Monitors shall attend the pre-grading meeting with the developer/permit holder’s contractors to provide Cultural Sensitivity Training for all construction personnel. This shall include the procedures to be followed during ground disturbance in sensitive areas and protocols that apply in the event that unanticipated resources are discovered. Only construction personnel who have received this training can conduct construction and disturbance activities in sensitive areas. A sign-in sheet for attendees of this training shall be included in the Phase IV Monitoring Report.

**MM-CUL-4 Identification and Protection of Archaeological Resources.** Prior to issuance of any grading permit within the Northside Specific Plan, the applicable jurisdiction (City of Riverside, City of Colton, or County of Riverside) shall ensure that archaeological resources are identified and appropriately treated. This includes recordation and evaluation of any previously unevaluated archaeological resources. A qualified archaeologist, meeting the Secretary of the Interior’s Professional Qualification Standards, shall record and evaluate archaeological resources that have not been previously evaluated, or require evaluation updates due to the passage of time or changes to site conditions; this mitigation measure also applies to any archaeological resource discovered as a result of project ground-disturbance activities. The qualified professional will: (1) review current CHRIS records search to ensure that previously recorded resources are identified; (2) survey the project site for potential archaeological resources and document the resource(s) with notes and photographs; (3) record and evaluate any potential archaeological resources and apply state and local designation criteria, and preparation of the appropriate set of State of California Department of Parks and Recreation Series 523 Forms (DPR forms); and (4) conduct an assessment of potential impacts to any identified archaeological resources in consideration of project-related activities that may result in substantial adverse change to the significance of an archaeological resource. Significance shall be assessed based on California Environmental Quality Act (CEQA) Section 15064.5 criteria. If a significant resource is identified, avoidance or minimization of the of the resource shall be completed consistent with the applicable CEQA Section 21083.2, City of Colton Municipal Code Chapter 15.40 Historic Preservation and City of Riverside Municipal Code Chapter 20, as feasible. If the discovery proves significant and avoidance is not possible, additional work, such as preparation of an archaeological treatment plan, testing, or data recovery may be warranted. Resources found not to be significant as a result of a survey and/or assessment will require no further work beyond documentation of the resources on the appropriate DPR forms and inclusion of results in the survey and/or assessment report.

### 3.4.6 Level of Significance After Mitigation

As identified In Section 3.4.4, changes in development allowed in Subareas 1 to 5, 7 to 12, and 16 would result in potentially significant impacts to historic resources (**Impact CUL-1**). To minimize impacts to known and potential historical resources, mitigation measure **MM-CUL-1** would be implemented. However, because the details and specific locations of future projects within the SPA are unknown at this time, the potential to impact historical resources remains significant.

The proposed designation of a Trujillo Adobe Heritage Village and the associated anticipated restoration of the Trujillo Adobe also has potential to result in a significant historic resource impact (**Impact CUL-2**). **MM-CUL-2** ensures that the Trujillo Adobe and its historical associations are appropriately considered in the proposed Subarea 16

development. This mitigation measure requires an updated evaluation of the resource, including physical documentation of the resource and its character-defining feature; consultation with an historic preservation architect/engineer and architectural historian on proposed project design plans; consultation with local stakeholders; and rehabilitation/restoration of the Trujillo Adobe and its surroundings in conformance with the Secretary of the Interior’s Standards for the Treatment of Historical Properties. However, because the details of the proposed Trujillo Adobe Heritage Village are unknown at this time, the potential to impact historical resources remains significant.

Based on the known resources within the Northside SPA, it is possible that intact archaeological deposits are present at subsurface levels, and future development allowed under the plan could result in significant impacts (**Impact CUL-3**). **MM-CUL-3a** through **MM-CUL-3c** require that all construction work is immediately stopped until a qualified archaeologist can evaluate the significance of the find, and evaluate potentially significant impacts to archaeological resources. In addition, this measure requires proper treatment of any significant resource in a manner that would preserve information and reduce or avoid significant impacts. With implementation of this measure, significant archaeological resources would be addressed in accordance with the City’s standard measures and impacts would be reduced to below a level of significance. However, the City of Riverside does not have jurisdiction over development projects that occur within the Northside Specific Plan areas within the County of Riverside or City of Colton; thus, the City of Riverside cannot legally impose these mitigation measures within those jurisdictions. For this reason, this impact is considered significant and unavoidable.

There are known archaeological sites within the Northside SPA, including within areas that would be affected by the proposed Northside Specific Plan. Impacts to known archaeological resources would be potentially significant (**Impact CUL-4**). To reduce this potential impact, **MM-CUL-4** would be implemented. This measure requires proper evaluation of the resource and implementation of avoidance or impact reduction measures to ensure impacts would be below a level of significance. However, the City of Riverside does not have jurisdiction over development projects that occur within the Northside Specific Plan areas within the County of Riverside or City of Colton; thus, the City of Riverside cannot legally impose this mitigation measure within those jurisdictions. For this reason, this impact is considered significant and unavoidable.

While human remains are not anticipated to be discovered during future development allowed by the Northside Specific Plan, there is potential for inadvertent finds of human remains. Such inadvertent finds would be required to follow California Health and Safety Code Section 7050.5 (**CM-CUL-1**), which would ensure impacts would be below a level of significance.

Overall, **Impact CUL-1** through **Impact CUL-4** would remain significant and unavoidable.

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## 3.5 Energy

This section describes the existing energy conditions of the Northside Specific Plan Area (SPA) and vicinity, identifies associated regulatory requirements, evaluates potential impacts, and identifies mitigation measures (MMs) related to implementation of the Northside Specific Plan. The information and analysis presented in this section is based on the Riverside-Colton Northside Specific Plan Baseline Opportunities and Constraints Analysis prepared by Rick Engineering (2017; referred to herein as the “baseline analysis”) and provided as Appendix B.

### 3.5.1 Existing Conditions

#### Electricity

According to the U.S. Energy Information Administration (EIA), California used approximately 257,268 gigawatt hours of electricity in 2017 (EIA 2019a). By sector in 2017, commercial uses utilized 46% of the state’s electricity, followed by 35% for residential uses, and 19% for industrial uses (EIA 2019). Electricity usage in California for different land uses varies substantially by the types of uses in a building, type of construction materials used in a building, and the efficiency of all electricity-consuming devices within a building. Due to the state’s energy efficiency building standards and efficiency and conservation programs, California’s electricity use per capita in the residential sector is lower than any other state except Hawaii (EIA 2019a).

The SPA is serviced by City of Riverside Public Utilities (RPU), Southern California Edison (SCE), and the Colton Electric Utility Department.

RPU was established in 1895 and is a consumer-owned water and electric utility providing service to the Riverside area. In January of 2017, the City Council, RPU Board and staff developed the Utility 2.0, a strategic plan that sets a direction for from 2017 through year 2021, concentrating on accelerated infrastructure replacement and implementing new technology projects. Utility 2.0 identifies six Focus Areas to provide the foundation of the Strategic Plan. These Focus Areas are derived from the Utility 2.0 Strategic Plan and are an outgrowth of the 3-year and 10-year goals from prior strategic planning efforts. The Focus Areas are:

- Reliability & Resiliency – Renew, replace, upgrade, modernize and extend the water and electric system infrastructure to ensure reliability is maintained or improved and that resilience to extreme events is maintained or improved.
- Affordability – Keep water and electricity prices affordable and comply with Fiscal Policy.
- Sustainability – Meet all city goals and state and federal compliance targets related to efficient use of water and electricity, renewable resources, greenhouse gas emissions.
- Customer Experience – Provide world-class customer-centered service in every encounter, every day.
- Operational Excellence – Instill, maintain and grow a culture of learning, innovation and continuous improvement in all internal processes achieving excellence in all operations.
- Strong Workforce – Attract, retain, train, educate and promote employees ensuring that a high level of employee performance, productivity and engagement is achieved.

Strategy 3 of Utility 2.0 involves development and maintaining renewable water and power resources to meet compliance targets and fully implement integrated resource plans. Related objections include:

- Complete negotiations for a solar PPA provider for RPU water facilities with RPU electric service territory by September 30, 2017.
- Engage a consulting firm to determine recharge opportunities for the Riverside North and Riverside South groundwater basins by March 31, 2017.
- Complete, for Board and City Council consideration, a program to convert customers to recycled water service by December 31, 2017.
- Procure adequate and appropriate power to meet SB 350 Renewable Portfolio Standard targets; 33% by 2020 and 50% by 2030.
- Develop feasibility report for energy storage at Tequesquite solar project by July 31, 2017.
- Develop a plan for review by the General Manager to achieve 5% energy efficiency savings per year through 2030 by December 31, 2017.

SCE, a subsidiary of Edison International, serves approximately 180 cities in 11 counties across central and Southern California. SCE administers various energy efficiency and conservation programs that may be available to residents, businesses, and other organizations. According to the California Public Utilities Commission (CPUC), approximately 84 billion kilowatt-hours (kWh) of electricity were used in SCE's service area in 2017. Demand forecasts anticipate that approximately 75 billion kWh of electricity will be used in SCE's service area in 2020 (CPUC 2018).

SCE receives electric power from a variety of sources. According to CPUC's 2019 California Renewables Portfolio Standard Annual Report, 36% of SCE's power came from eligible renewables, such as biomass/waste, geothermal, small hydroelectric, solar, and wind sources (CPUC 2019). SCE maintains a lower percentage of renewable energy procurement when compared with California's two other large investor-owned utilities – Pacific Gas and Energy Company and San Diego Gas & Electric Company, both of which procured 39% and 44% of their electric power, respectively, from eligible renewables (CPUC 2019). SCE also maintains a slightly lower percentage of renewables relative to statewide procurement. The California Energy Commission (CEC) estimates that about 29% of the state's electricity retail sales in 2017 came from renewable energy (CEC 2018b). The California Renewables Portfolio Standard (RPS) Program establishes a goal for California to increase the amount of electricity generated from renewable energy resources to 20% by 2010 and to 33% by 2020. Recent legislation revised the current RPS target for California to obtain 50% of total retail electricity sales from renewable sources by 2030, with interim targets of 40% by 2024, and 45% by 2027 (CPUC 2016).

Established in 1887, Colton's Electric Utility is the oldest founded utility in San Bernardino County. The utility was created to provide quality, reliable service to residential and business customers within the city. Colton Electric Utility owns and operates its own power plant, five substations and the entire electrical infrastructure including the transmission and distribution lines within the city boundaries. The utility serves approximately 16,000 residential customers and 2,500 commercial and industrial customers, with a peak load of 90 Mega, or Million, Watts.

A comparison of the three utilities' energy resources is shown the Table 3.5-1, 2019 Power Content Labels.

Table 3.5-1. 2019 Power Content Labels

Energy Resource	Power Mix		
	RPU	SCE	City of Colton
Eligible Renewable	34%	36%	31%
Coal	29%	0%	0%
Large Hydroelectric	1%	4%	1%
Natural Gas	4%	17%	19%
Nuclear	4%	6%	5%

**Source:** CPUC 2019.

**Notes:** RPU = Riverside Public Utilities; SCE = Southern California Edison.

Within Riverside County, annual nonresidential electricity use is approximately 8.3 billion kWh per year, while residential electricity use is approximately 8.0 billion kWh per year. Within San Bernardino County, annual nonresidential electricity use is approximately 10 billion kWh per year, while residential electricity use is approximately 5.4 billion kWh per year, as reported by the state's Energy Consumption Data Management System for 2017 (CEC 2016).

### Natural Gas

According to the EIA, California used approximately 2,110,829 million cubic feet of natural gas in 2017 (EIA 2019b). Natural gas is used for cooking, space heating, generating electricity, and as an alternative transportation fuel. The majority of California's natural gas customers are residential and small commercial customers (core customers). These customers accounted for approximately 30% of the natural gas delivered by California utilities in 2017. Large consumers, such as electric generators and industrial customers (noncore customers), accounted for approximately 70% of the natural gas delivered by California utilities in 2017 (EIA 2019b).

The Southern California Gas Company (SoCalGas) provides both Riverside and San Bernardino with natural gas service. SoCalGas' service territory encompasses approximately 20,000 square miles and more than 500 communities. In the California Energy Demand mid-energy demand scenario, natural gas demand is projected to have an annual growth rate of 0.03% in SoCalGas' service territory. As of 2017, approximately 7,206 million therms<sup>1</sup> were used in SoCalGas' service area per year. The Northside Specific Plan is expected to begin construction in 2020. By 2020, natural gas demand is anticipated to be approximately 7,876 million therms per year in SoCalGas' service area (CEC 2017). In 2020, the the peak day demand supplied by SoCalGas is estimated to be 2.8 billion cubic feet per day<sup>2</sup> (California Gas and Electric Utilities 2018). This amount is approximately equivalent to 2.86 billion thousand British thermal units (kBtu) per day or 28.6 million therms per day.

### Petroleum

According to the CEC, California used approximately 18.6 billion gallons of petroleum in 2017 (EIA 2019c). This equates to a daily use of approximately 51 million gallons of petroleum. By sector, transportation uses utilize approximately 85.5% of the state's petroleum, followed by 11.1% from industrial, 2.5% from commercial, 0.9% from residential, and 0.01% from electric power uses (EIA 2018). Petroleum usage in California includes

<sup>1</sup> One Therm is equal to 100,000 Btu or 100 kBtu.

<sup>2</sup> One cubic foot of natural gas has approximately 1,020 BTUs of natural gas or 1.02 kBtus of natural gas.

petroleum products such as motor gasoline, distillate fuel, liquefied petroleum gases, and jet fuel. California has implemented policies to improve vehicle efficiency and to support use of alternative transportation, which are described in Section 3. 5.2, below. As such, the CEC anticipates an overall decrease of gasoline demand in the state over the next decade.

## 3.5.2 Relevant Plans, Policies, and Ordinances

### Federal

#### ***Federal Energy Policy and Conservation Act***

In 1975, Congress enacted the Federal Energy Policy and Conservation Act, which established the first fuel economy standards for on-road motor vehicles in the United States. Pursuant to the act, the National Highway Traffic Safety Administration is responsible for establishing additional vehicle standards. In 2012, new fuel economy standards for passenger cars and light trucks were approved for model years 2017 through 2021 (77 FR 62624–63200). Fuel economy is determined based on each manufacturer’s average fuel economy for the fleet of vehicles available for sale in the United States.

#### ***Energy Independence and Security Act of 2007***

On December 19, 2007, the Energy Independence and Security Act of 2007 (EISA) was signed into law. In addition to setting increased Corporate Average Fuel Economy standards for motor vehicles, the EISA includes the following other provisions related to energy efficiency:

- Renewable Fuel Standard (RFS) (Section 202)
- Appliance and Lighting Efficiency Standards (Sections 301–325)
- Building Energy Efficiency (Sections 411–441)

This federal legislation requires ever-increasing levels of renewable fuels (the RFS) to replace petroleum (EPA 2017). The U.S. Environmental Protection Agency is responsible for developing and implementing regulations to ensure that transportation fuel sold in the United States contains a minimum volume of renewable fuel. The RFS program regulations were developed in collaboration with refiners, renewable fuel producers, and many other stakeholders.

The RFS program was created under the Energy Policy Act of 2005 and established the first renewable fuel volume mandate in the United States. As required under the act, the original RFS program (RFS1) required 7.5 billion gallons of renewable fuel to be blended into gasoline by 2012. Under the EISA, the RFS program was expanded in several key ways that lay the foundation for achieving significant reductions in greenhouse gas (GHG) emissions from the use of renewable fuels, reducing imported petroleum, and encouraging the development and expansion of the renewable fuels sector in the United States. The updated program is referred to as RFS2 and includes the following:

- EISA expanded the RFS program to include diesel, in addition to gasoline.
- EISA increased the volume of renewable fuel required to be blended into transportation fuel from 9 billion gallons in 2008 to 36 billion gallons by 2022.
- EISA established new categories of renewable fuel and set separate volume requirements for each one.

- EISA required the U.S. Environmental Protection Agency to apply lifecycle GHG performance threshold standards to ensure that each category of renewable fuel emits fewer GHGs than the petroleum fuel it replaces.

Additional provisions of the EISA address energy savings in government and public institutions, research for alternative energy, additional research in carbon capture, international energy programs, and the creation of “green” jobs.

## State

### *Warren-Alquist Act*

The California legislature passed the Warren-Alquist Act in 1974. The Warren-Alquist Act created the CEC. The legislation also incorporated the following three key provisions designed to address the demand side of the energy equation:

- It directed the CEC to formulate and adopt the nation’s first energy conservation standards for buildings constructed and appliances sold in California.
- The act removed the responsibility of electricity demand forecasting from the utilities, which had a financial interest in high-demand projections, and transferred it to a more impartial CEC.
- The CEC was directed to embark on an ambitious research and development program, with a particular focus on fostering what were characterized as non-conventional energy sources.

### *State of California Energy Action Plan*

The CEC and CPUC approved the first State of California Energy Action Plan in 2003. The plan established shared goals and specific actions to ensure that adequate, reliable, and reasonably priced electrical power and natural gas supplies are provided, and identified policies, strategies, and actions that are cost-effective and environmentally sound for California’s consumers and taxpayers. In 2005, a second Energy Action Plan was adopted by the CEC and CPUC to reflect various policy changes and actions of the prior 2 years.

At the beginning of 2008, the CEC and CPUC determined that it was not necessary or productive to prepare a new energy action plan. This determination was based, in part, on a finding that the state’s energy policies have been significantly influenced by the passage of Assembly Bill (AB) 32, the California Global Warming Solutions Act of 2006 (discussed below). Rather than produce a new energy action plan, the CEC and CPUC prepared an update that examines the state’s ongoing actions in the context of global climate change.

### *Senate Bills 1078 (2002), 107 (2006), X1-2 (2011), 350 (2015), and 100 (2018)*

Senate Bill (SB) 1078 established the California RPS Program and required that a retail seller of electricity purchase a specified minimum percentage of electricity generated by eligible renewable energy resources as defined in any given year, culminating in a 20% standard by December 31, 2017. These retail sellers include electrical corporations, community choice aggregators, and electric service providers. The bill relatedly required the CEC to certify eligible renewable energy resources, design and implement an accounting system to verify compliance with the RPS by retail sellers, and allocate and award supplemental energy payments to cover above-market costs of renewable energy.

SB 107 (2006) accelerated the RPS established by SB 1078 by requiring that 20% of electricity retail sales be served by renewable energy resources by 2010 (not 2017). Additionally, SB X1-2 (2011) requires all California utilities to

generate 33% of their electricity from eligible renewable energy resources by 2020. Specifically, SB X1-2 sets a three-stage compliance period: by December 31, 2013, 20% had to come from renewables; by December 31, 2016, 25% had to come from renewables; and by December 31, 2020, 33% will come from renewables.

SB 350 (2015) expanded the RPS because it requires retail seller and publicly owned utilities to procure 50% of their electricity from eligible renewable energy resources by 2030, with interim goals of 40% by 2024 and 45% by 2027.

SB 100 (2018) accelerated and expanded the standards set forth in SB 350 by establishing that 44% of the total electricity sold to retail customers in California per year by December 31, 2024, 52% by December 31, 2027, and 60% by December 31, 2030 be secured from qualifying renewable energy sources. SB 100 also states that it is the policy of the state that eligible renewable energy resources and zero-carbon resources supply 100% of the retail sales of electricity to California. This bill requires that the achievement of 100% zero-carbon electricity resources does not increase the carbon emissions elsewhere in the western grid and that the achievement not be achieved through resource shuffling.

Consequently, utility energy generation from nonrenewable resources is expected to be reduced based on implementation of the 60% RPS in 2030. Therefore, any project's reliance on nonrenewable energy sources would also be reduced.

### ***Assembly Bill 1007 (2005)***

AB 1007 (2005) required the CEC to prepare a statewide plan to increase the use of alternative fuels in California (State Alternative Fuels Plan). The CEC prepared the plan in partnership with the California Air Resources Board (CARB) and in consultation with other state agencies, plus federal and local agencies. The State Alternative Fuels Plan assessed various alternative fuels and developed fuel portfolios to meet California's goals to reduce petroleum consumption, increase alternative fuels use, reduce GHG emissions, and increase in-state production of biofuels without causing a significant degradation of public health and environmental quality.

### ***Assembly Bill 32 (2006) and Senate Bill 32 (2016)***

In 2006, the state legislature enacted AB 32, the California Global Warming Solutions Act of 2006. AB 32 requires California to reduce its GHG emissions to 1990 levels by 2020. In 2016, the Legislature enacted SB 32, which extended the horizon year of the state's codified GHG reduction planning targets from 2020 to 2030, requiring California to reduce its GHG emissions to 40% below 1990 levels by 2030. In accordance with AB 32 and SB 32, CARB prepares scoping plans to guide the development of statewide policies and regulations for the reduction of GHG emissions. Many of the policy and regulatory concepts identified in the scoping plans focused on increasing energy efficiencies, using renewable resources, and reducing the consumption of petroleum-based fuels (such as gasoline and diesel). As such, the state's GHG emissions reduction planning framework creates co-benefits for energy-related resources. Additional information on AB 32 and SB 32 is provided in Section 3.7, Greenhouse Gas Emissions, of this draft EIR.

### ***California Building Standards***

Part 6 of Title 24 of the California Code of Regulations was established in 1978 and serves to enhance and regulate California's building standards. Part 6 establishes energy efficiency standards for residential and nonresidential buildings constructed in California to reduce energy demand and consumption. Part 6 is updated periodically to incorporate and consider new energy efficiency technologies and methodologies. The 2016 Title 24 building energy efficiency standards, which became effective on January 1, 2017, and are currently applicable,

reduce energy used in the state as compared to the previous standards. In general, single-family homes built to the 2016 standards are anticipated to use approximately 28% less energy for lighting, heating, cooling, ventilation, and water heating than those built to the 2013 standards, and nonresidential buildings built to the 2016 standards will use an estimated 5% less energy than those built to the 2013 standards (CEC 2015).

The 2019 Title 24 standards were approved and adopted by the California Building Standards Commission in December 2018. The 2019 standards became effective January 1, 2020. The standards would require that all low-rise residential buildings shall have a photovoltaic system meeting the minimum qualification requirements such that annual electrical output is equal to or greater than the dwelling's annual electrical usage. Notably, net energy metering rules limit residential rooftop solar generation to produce no more electricity than the home is expected to consume on an annual basis. Single-family homes built with the 2019 standards will use about 7% less energy due to energy efficiency measures versus those built under the 2016 standards, while new nonresidential buildings will use about 30% less energy (CEC 2018a).

Title 24 also includes Part 11, California's Green Building Standards (CALGreen). The CALGreen standards took effect in January 2011 and instituted mandatory minimum environmental performance standards for all ground-up, new construction of commercial, low-rise residential, and state-owned buildings, as well as schools and hospitals. The 2016 CALGreen standards became effective on January 1, 2017. The mandatory standards require the following:

- 20% mandatory reduction in indoor water use.
- 50% diversion of construction and demolition waste from landfills.
- Mandatory inspections of energy systems to ensure optimal working efficiency.

The California Building Standards Commission approved amendments to the voluntary measures of the CALGreen standards in December 2018. The 2019 CALGreen standards became effective January 1, 2020. As with the 2019 Title 24 standards, the 2019 CALGreen standards focus on building energy efficiency.

### ***Integrated Energy Policy Report***

The CEC is responsible for preparing integrated energy policy reports that identify emerging trends related to energy supply, demand, and conservation; public health and safety; and maintenance of a healthy economy. The CEC's 2018 Integrated Energy Policy Report discusses the state's policy goals of decarbonizing buildings, doubling energy efficiency savings, and increasing flexibility in the electricity grid system to integrate more renewable energy (CEC 2018b). Specifically for the decarbonizing of building energy, the goal would be achieved by designing future commercial and residential buildings to have their energy sourced almost entirely from electricity in place of natural gas. Regarding the increase in renewable energy flexibility, the goal would be achieved through increases in energy storage capacity within the state, increases in energy efficiency, and adjusting energy use to the time of day when the most amount of renewable energy is being generated. Over time these policies and trends would serve to beneficially reduce the Northside Specific Plan's GHG emissions profile and energy consumption as they are implemented.

### ***State Vehicle Standards***

In response to the transportation sector accounting for more than half of California's carbon dioxide (CO<sub>2</sub>) emissions, AB 1493 was enacted in 2002. AB 1493 required CARB to set GHG emissions standards for passenger vehicles, light-duty trucks, and other vehicles determined by the state board to be vehicles whose

primary use is noncommercial personal transportation in the state. The bill required that CARB set GHG emissions standards for motor vehicles manufactured in 2009 and all subsequent model years. The 2009–2012 standards resulted in a reduction in approximately 22% of GHG emissions compared to emissions from the 2002 fleet, and the 2013–2016 standards resulted in a reduction of approximately 30%.

In 2012, CARB approved a new emissions-control program for model years 2017 through 2025. The program combines the control of smog, soot, and global-warming gases with requirements for greater numbers of zero-emissions vehicles into a single package of standards called Advanced Clean Cars. By 2025, when the rules would be fully implemented, new automobiles would emit 34% fewer global-warming gases and 75% fewer smog-forming emissions (CARB 2011).

Although the focus of the state’s vehicle standards is on the reduction of air pollutants and GHG emissions, one co-benefit of implementation of these standards is a reduced demand for petroleum-based fuels.

### ***Sustainable Communities Strategy***

The Sustainable Communities and Climate Protection Act of 2008, or SB 375, coordinates land use planning, regional transportation plans, and funding priorities to help California meet its GHG emissions reduction mandates established in AB 32. As codified in California Government Code Section 65080, SB 375 requires Metropolitan Planning Organizations to include a sustainable communities strategy in their regional transportation plan. The main focus of the sustainable communities strategy is to plan for growth in a fashion that will ultimately reduce GHG emissions, but the strategy is also part of a bigger effort to address other development issues, including transit and vehicle miles traveled (VMT), which influence the consumption of petroleum-based fuels.

### **Local**

As explained in Section 3.7, Greenhouse Gas Emissions, the Riverside City’s General Plan, City of Riverside’s Restorative Growthprint-CAP, City of Colton’s General Plan, County of Riverside General Plan, and County of Riverside CAP all include policies to conserve energy and reduce emissions associated with energy consumption. See Section 3.7 for additional discussion of the local plans.

## 3.5.3 Thresholds of Significance

The significance criteria used to evaluate the Northside Specific Plan impacts to energy consumption is based on the recommendations provided in Appendix G of the CEQA Guidelines (14 CCR 15000 et seq.). For the purposes of this energy consumption analysis, a significant impact would occur if the Northside Specific Plan would:

1. Result in wasteful, inefficient, or unnecessary consumption of energy resources, during Specific Plan construction or operation.
2. Conflict with or obstruct a state or local plan for renewable energy or energy efficiency.

### **Construction Emissions**

The California Emission Estimator Model (CalEEMod) Version 2016.3.2 was used to estimate potential Specific Plan-generated GHG emissions during construction, which were then used to estimate energy consumption. As a conservative estimation of GHG emissions, as a result of energy from coal, the RPU Power Content Label was used in CalEEMod estimations and are carried through to the estimated energy consumption. Construction of the Northside Specific Plan would result in GHG emissions primarily associated with use of off-road construction

equipment, on-road hauling and vendor (material delivery) trucks, and worker vehicles. All details for construction criteria air pollutants discussed in Section 3.2, Air Quality, and Appendix C of this draft EIR are also applicable for the estimation of construction-related GHG emissions. The estimated GHGs were back-calculated based on carbon content (i.e., kilograms of CO<sub>2</sub> per gallon) in order to estimate fuel usage during Specific Plan construction. The conversion factor for gasoline is 8.78 kilograms per metric ton CO<sub>2</sub> per gallon, and the conversion factor for diesel is 10.21 kilograms per metric ton CO<sub>2</sub> per gallon (The Climate Registry 2019).

### Operational Emissions

During Specific Plan operations, activities that would consume energy would include electricity and natural gas use for building operations, electricity for water and wastewater conveyance, natural gas for emergency generator testing, and petroleum consumption from employees, customers, and delivery vehicle trips. Additional assumptions for these sources are described in 3.5-4, Impact analysis, below.

## 3.5.4 Impacts Analysis

***Would the project result in wasteful, inefficient, or unnecessary consumption of energy resources during project construction or operation?***

**Less-than-Significant Impact.** The buildout of uses allowed under the Northside Specific Plan would increase the demand for electricity and natural gas within the SPA and petroleum consumption in the region during construction and operation.

### Electricity

#### ***Construction Use***

Temporary electric power for as-necessary lighting and electronic equipment (such as computers inside temporary construction trailers and heating, ventilation, and air conditioning) during construction would be provided by RPU, SCE, or City of Colton depending on the location of the construction within the SPA. The amount of electricity used during construction would be minimal; typical demand would stem from the use of electrically powered hand tools and several construction trailers by managerial staff during the hours of construction activities. The majority of the energy used during construction would be from petroleum. The electricity used for construction activities would be temporary and minimal; therefore, impacts would be less than significant.

#### ***Operational Use***

The operational phase would require electricity for multiple purposes including building heating and cooling, lighting, appliances, electronics, and water and wastewater conveyance. The project would promote energy efficiency and renewable energy through implementation of Specific Plan goals and policies such as: 1) prioritizing companies that include sustainability practices as part of their business structure, 2) new buildings should be developed to LEED standards, 3) utilizing green infrastructure and material resources for increased sustainable project lifecycles. As a conservative analysis, CalEEMod default values for electricity consumption for the Northside Specific Plan scenarios and Baseline land uses were applied in this analysis (CAPCOA 2017). Table 3.5-2 presents the electricity demand for the Northside Specific Plan scenarios compared to the existing Baseline buildout at year 2040.

Table 3.5-2. Operational Electricity Demand – Baseline

Land Use	kWh/Year
<b>Northside Specific Plan – Baseline</b>	
<b>Building and Lighting Electricity Demand</b>	
General Office Building	14,694,700
Office Park	233,097,000
Elementary School	17,864,300
General Light Industrial	63,945,000
Industrial Park	746,368
User Defined Recreational	0
Apartments Low Rise	23,917,300
Apartments Mid Rise	4,727,580
Single-Family Housing	113,314
Regional Shopping Center	21,323,500
<b>Building Total</b>	<b>380,429,062</b>
<b>Other Electricity Demand</b>	
All Land Uses – Water/Wastewater Total	120,767,214
<b>Total</b>	<b>501,196,276</b>

Source: Appendix C.

Notes: kWh = kilowatt-hour.

As shown in Tables 3.5-3 and 3.5-4, the Northside Specific Plan is estimated to have a total electrical demand of 302,454,679 kWh and 359,339,950 kWh per year for facility usage and water/wastewater conveyance for Scenario 1 and Scenario 2, respectively. Existing land uses represented as the Baseline are estimated to have a total electrical demand of 501,196,276 kWh per year (or 501 million kWh per year) for facility usage and water/wastewater conveyance. The net change in estimated electricity consumption between the Northside Specific Plan and Baseline is estimated to be a net reduction of 198,741,596 and 141,856,326 kWh per year for Scenario 1 and Scenario 2 respectively.

Table 3.5-3. Operational Electricity Demand – Scenario 1

Land Use	kWh/Year
<b>Northside Specific Plan – Scenario 1</b>	
<b>Building and Lighting Electricity Demand</b>	
General Office Building	3,732,220
Office Park	110,751,000
Elementary School	18,097,900
General Light Industrial	15,022,000
User Defined Recreational	0
Apartments Low Rise	34,459,200
Apartments Mid Rise	25,538,100
Regional Shopping Center	26,957,000
<b>Building Total</b>	<b>234,557,420</b>

Table 3.5-3. Operational Electricity Demand – Scenario 1

Land Use	kWh/Year
<b>Other Electricity Demand</b>	
All Land Uses – Water/Wastewater Total	67,897,260
Total	302,454,679
<b>Net Electricity Use</b>	
Northside Specific Plan Scenario 1	302,454,679
Baseline	501,196,276
Net Electricity Use (Northside Specific Plan – Baseline)	-198,741,596

Source: Appendix C.

Notes: kWh = kilowatt-hour.

Table 3.5-4. Operational Electricity Demand – Scenario 2

Land Use	kWh/Year
<b>Northside Specific Plan – Scenario 2</b>	
<b>Building and Lighting Electricity Demand</b>	
General Office Building	3,732,220
Office Park	144,432,000
Elementary School	18,097,900
General Light Industrial	40,600,000
User Defined Recreational	0
Apartments Low Rise	23,552,800
Apartments Mid Rise	26,949,500
Single-Family Housing	52,299
Regional Shopping Center	18,015,900
Building Total	275,432,619
<b>Other Electricity Demand</b>	
All Land Uses – Water/Wastewater Total	83,907,331
Total	359,339,950
<b>Net Electricity Use</b>	
Northside Specific Plan Scenario 2	359,339,950
Baseline	501,196,276
Net Electricity Use (Northside Specific Plan – Baseline)	-141,856,326

Source: Appendix C.

Notes: kWh = kilowatt-hour.

The Northside Specific Plan would also be built in accordance with the current Title 24 standards at the time of construction (**CM-AQ-3**). Therefore, due to the inherent increase in efficiency of building code regulations, and a net decrease in electricity use, the Northside Specific Plan would not result in a wasteful use of energy. Impacts related to operational electricity use would be less than significant.

## Natural Gas

### Construction Use

Natural gas is not anticipated to be required during construction of the Northside Specific Plan. Fuels used for construction would primarily consist of diesel and gasoline, which are discussed under the subsection Petroleum, below. Any minor amounts of natural gas that may be consumed as a result of Northside Specific Plan construction would be temporary and negligible, and would not have an adverse effect; therefore, impacts would be less than significant.

### Operational Use

Natural gas consumption during operation would be required for various purposes, including building heating and cooling. For building consumption, default natural gas generation rates in CalEEMod for the Northside Specific Plan and Baseline land uses and climate zone were used. Tables 3.5-5 and 3.5-6 present the natural gas demand for the Northside Specific Plan, Baseline, and the net change, for Specific Plan Scenarios 1 and 2, respectively.

**Table 3.5-5. Operational Natural Gas Demand – Scenario 1**

Land Use	kBTu/Year
<b>Baseline</b>	
General Office Building	5,356,150
Office Park	68,682,500
Elementary School	21,437,748,200
General Light Industrial	204,687,000
Industrial Park	272,048
User Defined Recreational	0
Apartments Low Rise	76,642,100
Apartments Mid Rise	15,311,870
Single-Family Housing	397,750
Regional Shopping Center	3,748,070
<b>Total</b>	<b>396,534,688</b>
<b>Northside Specific Plan Scenario 1</b>	
General Office Building	1,360,380
Office Park	32,633,000
Elementary School	21,717,400
General Light Industrial	48,085,200
User Defined Recreational	0
Apartments Low Rise	110,423,000
Apartments Mid Rise	82,713,700
Regional Shopping Center	4,738,280
<b>Total</b>	<b>301,670,960</b>
<b>Net Natural Gas Use (Proposed – Baseline)</b>	
Northside Specific Plan – Scenario 1	301,670,960
Baseline	396,534,688
<b>Net Natural Gas Use (Proposed – Baseline)</b>	<b>-94,863,728</b>

Source: Appendix C.

Notes: kBtu = thousand British thermal units.

Table 3.5-6. Operational Natural Gas Demand – Scenario 2

Land Use	kBTu/Year
<b>Northside Specific Plan Scenario 2</b>	
General Office Building	1,360,360
Office Park	42,557,200
Elementary School	21,717,400
General Light Industrial	129,960,000
User Defined Recreational	0
Apartments Low Rise	75,470,000
Apartments Mid Rise	33,582,600
Single-Family Housing	53,702,500
Regional Shopping Center	183,577
<b>Total</b>	<b>3,166,700</b>
<b>Net Natural Gas Use (Proposed – Baseline)</b>	
Northside Specific Plan – Scenario 2	361,700,337
Baseline	396,534,688
<b>Net Natural Gas Use (Proposed – Baseline)</b>	<b>-34,834,351</b>

Source: Appendix C.

Notes: kBtu = thousand British thermal units.

As shown in Tables 3.5-5 and 3.5-6, the Northside Specific Plan would consume approximately 301,670,960 and 361,700,337 kBtu per year for Scenario 1 and 2, respectively. The Baseline land uses are estimated to consume approximately 396,534,688 kBtu per year. The net change in estimated natural gas consumption between the Northside Specific Plan and Baseline is estimated to be a decrease of 94,863,728 and 34,834,351 kBtu per year for Scenario 1 and 2, respectively.

The Northside Specific Plan is subject to statewide mandatory energy requirements as outlined in Title 24, Part 6, of the California Code of Regulations. Title 24, Part 11, contains additional energy measures that are applicable to the Northside Specific Plan under CALGreen. Prior to Specific Plan approval, the applicant would ensure that the Northside Specific Plan would meet Title 24 requirements applicable at that time, as required by state regulations through the plan review process (**CM-AQ-3**). Therefore, due to the inherent increase in efficiency of building code regulations, and net decrease in natural gas use, the Northside Specific Plan would not result in a wasteful use of energy. Impacts related to operational natural gas use would be less than significant.

## Petroleum

### Construction Use

As described in the Section 3.2, for purposes of estimating emissions, construction was assumed to start in 2020 and have a duration of 20 years, reaching completion in 2040. While construction specifics for buildout of the SPA are not currently available, the analysis contained herein is based on the first year of construction, the estimated worst-case construction year due to fleet vehicle emission improvements that occur in future construction years. To estimate a single year of construction, the entire year 2040 buildout land use quantities of Scenario 1 were scaled by 20-years of construction and then compressed to a 12-month period. Corresponding

construction equipment and worker, vendor, and haul trips were multiplied by a factor of 6 to account for the compressed 12-month period. This approach results in a conservative estimation of construction land use quantities and subsequently CalEEMod default values and emissions, as a significant portion of the SPA build-out quantities are constructed and existing features within the SPA.

Petroleum would be consumed throughout construction of the Northside Specific Plan. Fuel consumed by construction equipment would be the primary energy resource expended over the course of construction, and VMT associated with the transportation of construction materials and construction worker commutes would also result in petroleum consumption. Heavy-duty construction equipment associated with construction activities, vendor trucks, and haul trucks would rely on diesel fuel. Construction workers would travel to and from the Northside Specific Plan site throughout the duration of construction. It was assumed that construction workers would travel in gasoline-powered vehicles.

Heavy-duty construction equipment of various types would be used during construction. CalEEMod was used to estimate construction equipment usage. Based on that analysis, diesel-fueled construction equipment would operate for an estimated 1,481,520 hours over the 20-year buildout, as summarized in Table 3.5-7.

**Table 3.5-7. Hours of Operation for Construction Equipment**

Phase	Hours of Equipment Use (per Year)
Demolition	3,456
Site Preparation	2,352
Grading	6,912
Building Construction	57,720
Paving	3,744
Architectural Coating	468
<b>Total (per Year)</b>	<b>74,652</b>
<b>Total (20 Years)</b>	<b>1,493,040</b>

Source: Appendix C.

Fuel consumption from construction equipment was estimated by converting the total CO<sub>2</sub> emissions from each construction phase to gallons using conversion factors for CO<sub>2</sub> to gallons of gasoline or diesel. The conversion factor for gasoline is 8.78 kilograms per metric ton CO<sub>2</sub> per gallon, and the conversion factor for diesel is 10.21 kilograms per metric ton CO<sub>2</sub> per gallon (The Climate Registry 2019). The estimated diesel fuel use from construction equipment is shown in Table 3.5-8.

**Table 3.5-8. Construction Equipment Diesel Demand**

Phase	Pieces of Equipment	Equipment CO <sub>2</sub> (MT)	kg CO <sub>2</sub> /Gallon	Gallons
Demolition	36	122.40	10.21	11,987.76
Site Preparation	42	70.20	10.21	6,876.04
Grading	48	294.22	10.21	28,816.38
Building Construction	42	1,285.43	10.21	125,899.65
Paving	36	78.11	10.21	7,650.35
Architectural Coating	6	9.96	10.21	975.29
			<b>Total (per Year)</b>	<b>182,205.47</b>
			<b>Total (20 Years)</b>	<b>3,644,109.30</b>

Source: Appendix C.

Notes: CO<sub>2</sub> = carbon dioxide; MT = metric ton; kg = kilogram.

Fuel consumption from worker, vendor, and haul truck trips was estimated by converting the total CO<sub>2</sub> emissions from the construction phase to gallons using the conversion factors for CO<sub>2</sub> to gallons of gasoline or diesel. Worker vehicles are assumed to be gasoline fueled, whereas vendor and haul trucks are assumed to be diesel fueled. The estimated fuel use for worker vehicles, vendor trucks, and haul trucks are presented in Table 3.15-9, Table 3.15-10, and Table 3.15-11, respectively.

**Table 3.15-9. Construction Worker Gasoline Demand**

Phase	Trips	Vehicle CO <sub>2</sub> (MT)	kg CO <sub>2</sub> /Gallon	Gallons
Demolition	90	5.33	8.78	607.45
Site Preparation	106	3.66	8.78	417.33
Grading	120	10.67	8.78	1,214.90
Building Construction	5,826	5,322.58	8.78	606,216.51
Paving	90	5.78	8.78	658.20
Architectural Coating	1,164	74.73	8.78	8,511.03
<b>Total (per Year)</b>				<b>617,625.42</b>
<b>Total (20 Years)</b>				<b>12,352,508.43</b>

Source: Appendix C.

Notes: CO<sub>2</sub> = carbon dioxide; MT = metric ton; kg = kilogram.

**Table 3.15-10. Construction Vendor Diesel Demand**

Phase	Trips	Vehicle CO <sub>2</sub> (MT)	kg CO <sub>2</sub> /Gallon	Gallons
Demolition	0	0	10.21	0
Site Preparation	0	0	10.21	0
Grading	0	0	10.21	0
Building Construction	1,770	4,026.85	10.21	394,402.25
Paving	0	0	10.21	0
Architectural Coating	0	0	10.21	0
<b>Total (per Year)</b>				<b>394,402.25</b>
<b>Total (20 Years)</b>				<b>7,888,045.05</b>

Source: Appendix C.

Notes: CO<sub>2</sub> = carbon dioxide; MT = metric ton; kg = kilogram.

**Table 3.15-11. Construction Haul Diesel Demand**

Phase	Trips	Vehicle CO <sub>2</sub> (MT)	kg CO <sub>2</sub> /Gallon	Gallons
Demolition	84	3.17	10.21	310.43
Site Preparation	0	0	10.21	0
Grading	0	0	10.21	0
Building Construction	0	0	10.21	0
Paving	0	0	10.21	0
Architectural Coating	0	0	10.21	0
<b>Total (per Year)</b>				<b>310.43</b>
<b>Total (20 Years)</b>				<b>6,208.62</b>

Source: Appendix C.

Notes: CO<sub>2</sub> = carbon dioxide; MT = metric ton; kg = kilogram.

As shown in Tables 3.15-8 through 3.15-11, the Northside Specific Plan is estimated to consume approximately 1,194,544 gallons of petroleum during each year of construction phase. For disclosure, by comparison, California’s daily petroleum consumption is estimated at approximately 78.6 million gallons per day (EIA 2019c). Overall, because petroleum use during construction would be temporary, and would not be wasteful or inefficient, impacts would be **less than significant**.

### **Operational Use**

The fuel consumption resulting from the Northside Specific Plan’s operational phase would be attributable to various vehicles associated with each land use. Petroleum fuel consumption associated with motor vehicles traveling within the SPA during operation is a function of VMT. A policy of the project as stated in the Northside Specific Plan is to design and operate complete streets that enable safe, comfortable, and attractive access and travel for pedestrians, bicyclists, motorists, and transit users. As discussed in Section 2.4.2, Circulation, Mobility and Trails, the Northside Specific Plan would create new bike lanes and sidewalks to promote active transportation. These policies help to reduce the dependency on motor vehicles within the SPA. Trip generation rates for the Northside Specific Plan Scenarios and Baseline Scenario were based on the Traffic Impact Analysis (Appendix H) As shown in Appendix C, CalEEMod Outputs, the annual VMT attributable to the Northside Specific Plan is expected to be 398,724,379 and 350,761,463 for Scenario 1 and 2, respectively. The Baseline is estimated with 320,927,167 VMT per year. Similar to construction worker and vendor trips, fuel consumption for operation was estimated by converting the total mobile source CO<sub>2</sub> emissions from the Northside Specific Plan and Baseline land uses to gallons using the conversion factors for CO<sub>2</sub> to gallons of gasoline or diesel. The estimated fuel use from Specific Plan and Baseline land uses operational mobile sources is shown in Table 3.5-12 and Table 3.5-13.

**Table 3.5-12. Specific Plan Operations – Scenario 1 Petroleum Consumption per Year**

Fuel	Vehicle MT CO <sub>2</sub>	kg CO <sub>2</sub> /Gallon <sup>a</sup>	Gallons
<b>Northside Specific Plan – Scenario 1</b>			
Gasoline	117,939.49	8.78	13,432,744
Diesel	11,426.93	10.21	1,119,190
		<b>Total</b>	<b>14,551,934</b>
<b>Baseline</b>			
Gasoline	94,574.34	8.78	10,771,565
Diesel	9,163.12	10.21	879,465
		<b>Total</b>	<b>11,669,030</b>
<b>Net Petroleum Consumption (Proposed – Baseline)</b>			
Northside Specific Plan – Scenario 1			14,551,934
Baseline			11,669,030
<b>Net Petroleum Consumption (Proposed – Baseline)</b>			<b>2,882,904</b>

Source: Appendix C.

Notes: MT = metric ton; CO<sub>2</sub> = carbon dioxide; kg = kilogram.

Table 3.5-13. Specific Plan Operations – Scenario 2 Petroleum Consumption per Year

Fuel	Vehicle MT CO <sub>2</sub>	kg CO <sub>2</sub> /Gallon <sup>a</sup>	Gallons
<b>Northside Specific Plan – Scenario 2</b>			
Gasoline	103,413.90	8.78	11,778,349
Diesel	10,019.57	10.21	981,349
<b>Total</b>			<b>12,759,697</b>
<b>Baseline</b>			
Gasoline	94,574.34	8.78	10,771,565
Diesel	9,163.12	10.21	879,465
<b>Total</b>			<b>11,669,030</b>
<b>Net Petroleum Consumption (Proposed – Baseline)</b>			
Northside Specific Plan – Scenario 2			12,759,697
Baseline			11,669,030
<b>Net Petroleum Consumption (Proposed – Baseline)</b>			<b>1,090,667</b>

Source: Appendix C.

Notes: MT = metric ton; CO<sub>2</sub> = carbon dioxide; kg = kilogram.

As depicted in Table 3.5-12 and Table 3.5-13, mobile sources from the Northside Specific Plan would result in approximately a maximum of 14,551,934 gallons of petroleum fuel usage per year. Baseline land use mobile sources would result in approximately 11,669,030 gallons of petroleum fuel usage per year. As such, the maximum net change in petroleum fuel usage between the Northside Specific Plan and Baseline land uses is 2,882,904 gallons per year. For disclosure, by comparison, California as a whole consumes approximately 28.7 billion gallons of petroleum per year (EIA 2019c).

Over the lifetime of the Northside Specific Plan, the fuel efficiency of the vehicles being used within the SPA is expected to increase. As such, the amount of petroleum consumed as a result of vehicular trips to and from the Northside Specific Plan during operation would decrease over time. As detailed in Section 3.5.3, there are numerous regulations in place that require and encourage increased fuel efficiency. For example, CARB has adopted an approach to passenger vehicles that combines the control of smog-causing pollutants and GHG emissions into a single, coordinated package of standards. The approach also includes efforts to support and accelerate the number of plug-in hybrids and zero-emissions vehicles in California (CARB 2011). As such, operation of the Northside Specific Plan is expected to use decreasing amounts of petroleum over time due to advances in fuel economy.

In summary, the Northside Specific Plan would increase petroleum use during operation as a result of the proposed changes within the SPA, but due to efficiency increases, would diminish over time. Petroleum consumption associated with the Northside Specific Plan would not be considered inefficient or wasteful and would result in a less-than-significant impact.

Based on the analysis above, the consumption of energy resources (including electricity, natural gas, and petroleum) during the Northside Specific Plan construction and operation would not be considered inefficient or wasteful and would result in a less-than-significant impact.

*Would the project conflict with or obstruct a state or local plan for renewable energy or energy efficiency?*

**Less-than-Significant Impact.** Title 24 of the California Code of Regulations contains energy efficiency standards for residential and nonresidential buildings based on a state mandate to reduce California’s energy demand. Specifically, Title 24 addresses a number of energy efficiency measures that impact energy used for lighting, water heating, heating, and air conditioning, including the energy impact of the building envelope such as windows, doors, wall/floor/ceiling assemblies, and roofs.

Part 6 of Title 24 specifically establishes energy efficiency standards for residential and nonresidential buildings constructed in the State of California in order to reduce energy demand and consumption. Part 11 of Title 24 also includes the CALGreen standards, which established mandatory minimum environmental performance standards for new construction projects. The Northside Specific Plan would comply with Title 24, Part 6 and Part 11, per state regulations. Based on the foregoing, the Northside Specific Plan would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency; therefore, impacts during construction and operation of the Northside Specific Plan would be less than significant.

### 3.5.5 Mitigation Measures

Impacts relating to energy would be less than significant and no mitigation would be necessary.

However, as presented in Section 3.2, Air Quality, it is noted that implementation of mitigation measure **MM-AQ-1** would reduce construction-related energy consumption. Implementation of the following air quality mitigation measures would reduce operational-related energy consumption: **MM-AQ-4**, **MM-AQ-5**, **MM-AQ-6**, and **MM-AQ-7**.

### 3.5.6 Level of Significance After Mitigation

Impacts related to energy would be less than significant, and no mitigation is required.

## 3.6 Geology and Soils

This section describes the existing geological conditions of the Northside Specific Plan Area (SPA) and vicinity, identifies associated regulatory requirements, evaluates potential impacts, and identifies mitigation measures related to implementation of the SPA. Information utilized for this section includes the project-specific Northside Specific Plan Baseline Opportunities & Constraints Analysis (Appendix B), a museum records search for paleontological resources (Appendix E), and publicly available information that is cited in the text below.

### 3.6.1 Existing Conditions

#### Topography

Site topography ranges from approximately 940 feet above mean sea level in the northeast region to 800 feet above mean sea level in the southwest (see Figure 2.3, Topographic Map, in Chapter 2). The site abuts the La Loma Hills in the north then slopes gently to the southwest towards the Santa Ana River, at a gradient of 0% to 8%.

#### Regional Geology

The SPA is located within Peninsular Ranges Geomorphic Provinces of California, in the eastern part of the Upper Santa Ana Valley, which is generally westward sloping. The region is constrained on the north and east by the San Gabriel and San Bernardino Mountains, respectively, and on the south by the Crafton Hills, an area known as the Badlands and Jurupa Mountains (USGS 1963; California DWR 2004). Most of the SPA is mapped as surficial Quaternary alluvium, according to published mapping at a 1:24,000 scale by Dibblee and Minch (2003 and 2004) and the records search results (McLeod 2019). Active fluvial deposits associated with the Santa Ana River (Holocene; less than 11,700 years old) are mapped in the southwestern portion of the SPA. Along the northeastern border of the SPA, within the higher elevations associated with the La Loma Hills, plutonic igneous bedrock is exposed. Older (Pleistocene age; ~2.58 million to 11,700 years old) Quaternary alluvial deposits mapped at the surface in the eastern portion of the project site, derived from Blue Mountain or the Box Springs Mountains to the east, potentially also underlie younger, Pleistocene, or “Ice-Age” deposits at an unknown depth.

The SPA is located in a seismically active region. Several large and well-known faults are located in the SPA region, and movement along those faults has greatly influenced the erosional and depositional history of the site. Holocene-active faults in close proximity to the SPA include the northwest trending San Andreas Fault, San Jacinto Fault, Elsinore Fault, and several associated subsidiary faults, as well as the east trending Cucamonga Fault System (CGS 2010; USGS 1963), as shown on Figure 3.6-1, Regional Faults. Nearby late Quaternary faults include the Rialto-Colton Fault (CGS 2010).

#### Soils

The SPA is comprised predominately of four surficial soil types: (1) Metz loamy fine sand, (2) Tujungia loamy sand, (3) San Emigdio fine sandy loam, and (4) Buren fine sandy loam. These soils overlay geologic units and illustrate the near surface sediment composition of the region. Each of these soils overlie alluvium derived from granitic and sedimentary sources (USDA 2019).

### ***Metz Loamy Fine Sand (MfA)***

Metz loamy fine sand is present in the south to mid-section of the SPA, on gently sloping topography, ranging from 0% to 2%, with depths of more than 80 inches. Metz soils are considered to have high drainage capacity and very low runoff potential.

### ***Tujunganga Loamy Sand (TuB)***

Tujunganga loamy sand is present in the northwest, southwest, and mid-section of the SPA. This topsoil has a slope from 0% to 5%, with depths of more than 80 inches. Tujunganga soils are considered to have moderate drainage capacity and a very low potential for runoff.

### ***San Emigdio Fine Sandy Loam (SfA)***

San Emigdio fine sandy loam is present in the southwest to southern portion of the SPA, on gently sloping topography of 0% to 2%, with soil depths of more than 80 inches. This topsoil is considered to be well drained with a very low potential for runoff.

### ***Buren Fine Sandy Loam (BuC2)***

Buren fine sandy loam is present in the southeast portion of the SPA, on gently sloping topography of 2% to 8%, with soil depths ranging from 37 inches to 40 inches. This topsoil is considered to be moderately well drained with and a high run-off potential.

## **Geologic Units**

Four underlying geologic units are found at the SPA: (1) young axial channel deposits, (2) old alluvial fan, (3) very old alluvial fan, and (4) granodiorite (USGS 1978, 2001). Each of these geologic units are described below.

### ***Young Axial Channel Deposits (Qya)***

The Holocene and late Pleistocene-age, young axial channel deposits are formed by lateral deposition of sediments along tributary channels. The river-channel deposits are part of the younger alluvium but are differentiated from floodplain material because they form a well-defined unit of high permeability that is of particular importance in receiving stream recharge. These deposits underlie the existing channels and the abandoned or inactive channels of all streams and washes, from the apexes of the alluvial fans to the junctions with the Santa Ana River. These deposits underlie a large part of the floor of the entrenched channel of the Santa Ana River. In general, the deposits consist of unconsolidated medium to fine-grained sand, with lesser amounts of silt. Young axial channel deposits are the dominant geologic unit underlying the SPA. These deposits are predominately present in the north and southwest portion of the site, abutting the Santa Ana River to the west and extending to the southwest edge of the site. Small areas of these deposits can also be found in the southeast area of the site (USGS 1963).

### ***Old Alluvial Fan (Qof)***

Alluvial fan deposits typically consist of coarse-grained sediment produced by water-induced sheet-flow and debris flow and found in proximity to a material source. Late to middle Pleistocene-age old, fluvial-derived alluvial fan deposits comprise the southeast portion of the SPA. Most of this unit is slightly to moderately dissected (cut by erosion). Some areas of old alluvial fan deposits include an overlying thin, discontinuous surface layer of Holocene alluvial fan material.

### **Very Old Alluvial Fan (Qvof)**

Early Pleistocene-age very old alluvial fan, fluvial deposits are found in the southeast portion of the site. Very old alluvial fan deposits are derived chiefly from rocks of the Southern California Batholith, consisting predominately of granodiorite, quartz diorite and gabbro. This unit is composed of mostly well-dissected, well-indurated, sand deposits.

### **Granodiorite (Kgd)**

Granodiorite is medium-to-coarse-grained rock that is among the most abundant intrusive igneous rocks. Cretaceous-age granodiorite is present at the base of the La Loma Hills, located along the northeast property boundary.

### **Landslides**

Slope failures include many phenomena that involve the downslope displacement and movement of material, triggered either by gravity or seismic forces. Exposed bedrock slopes may experience rockfalls, rockslides, rock avalanches, and deep-seated rotational slides, and soil slopes may experience soil slumps and rapid debris flows. Slope stability can depend on a number of complex variables, including the geology, structure, and amount of groundwater, as well as external processes such as climate, topography, slope geometry, and human activity. The factors that contribute to slope movements include those that decrease the resistance in the slope materials and those that increase the stresses on the slope. Slope failure can occur on slopes of 15% or less, but the probability is greater on steeper slopes that exhibit old landslide features such as scarps, slanted vegetation, and transverse ridges. Based on the San Bernardino Geologic Hazard Maps of the region (County of San Bernardino 2016) and the County of Riverside's Safety Element (County of Riverside 2000), the SPA is located in an area with a low potential for landslides.

### **Regional Faulting and Seismicity**

The California Geological Survey (CGS 2018) classifies faults as:

- Holocene-active faults, which are faults that have moved during the past approximately 11,700 years. These faults are capable of surface rupture.
- pre-Holocene faults, which are faults that have not moved in the past 11,700 years. This class of fault may be capable of surface rupture but is not regulated under the Alquist-Priolo Special Studies Zones Act of 1972, which regulates construction of buildings to be used for human occupancy.
- age-undetermined faults, which are faults where the recency of fault movement has not been determined.

Holocene-active faults have been responsible for large historical earthquakes in Southern California, including the 1971 San Fernando earthquake (moment magnitude [Mw] 6.7), the 1992 Landers earthquake (Mw 7.3), the 1952 Kern County earthquake (Mw 7.5), and the 1933 Long Beach earthquake (Mw 6.4). Moment magnitude is the most common used method of describing the size of earthquakes. It measures the size of seismic events in terms of how much energy is released, and it relates to the amount of movement of rock. The Southern California region also includes blind thrust faults, which are faults that do not rupture at the surface, but are capable of generating substantial earthquakes. Examples include the 1987 Whittier Narrows earthquake (Mw 5.9) and the 1994 Northridge earthquake (Mw 6.7). Both of these earthquakes occurred on previously unidentified thrust faults.

### ***Regional Faults***

The most prominent known Holocene-active faults in the SPA vicinity are the San Jacinto, San Andreas, Elsinore, and Cucamonga Fault Zones (Figure 3.6-1, Regional Faults). Each of these faults have been designated as Alquist-Priolo earthquake fault zones.

### ***San Jacinto Fault***

The right-lateral San Jacinto Fault Zone consists of a series of closely spaced faults that form the western margin of the San Jacinto Mountains. The San Jacinto Fault, located approximately 3.5 miles northeast of the SPA, is a major structural feature in Southern California. The fault zone has a high level of historical seismic activity, with at least ten damaging (Mw 6–7) earthquakes having occurred on this fault zone between 1890 and 1986. Earthquakes on the San Jacinto Fault in 1899 and 1918 caused fatalities in the Riverside County area. One of the segments that the San Jacinto Fault is of most concern to Riverside County is the San Bernardino Fault segment. The working group on California Earthquakes Probabilities has estimated that the San Bernardino segment has a 37% probability of rupturing in the period between 1994 and 2024 (County of Riverside 2000; USGS 1963; CGS 2010).

### ***San Andreas Fault***

The right-lateral San Andreas Fault is the best known and longest fault in California. It is an active fault, and many areas along its course have undergone numerous and destructive earthquakes in historical times. Because of its relatively frequent large earthquakes, the San Andreas Fault is considered the “Master Fault” controlling the seismic hazards in Southern California. In the vicinity of Riverside County, the San Andreas Fault is comprised of three segments: (1) the San Bernardino Mountains segment, (2) the Coachella Valley segment, and (3) the Mojave Desert segment. The San Bernardino Mountain segment of the fault, located approximately 11 miles to the north and northeast, is most relevant to the SPA and has a probable magnitude Mw of 6.8 to 8.0. The Working Group on California Earthquake Probabilities estimates that this segment has a 28% probability of rupturing in the time period between 1994 and 2024. If the San Bernardino Mountain segment were to rupture in conjunction with the other segments, Riverside and San Bernardino Counties would be subject to stronger ground motion than as a result of rupture on only one segment (County of Riverside 2000; USGS 1963; CGS 2010; SCEDC 2013).

### ***Elsinore Fault***

The Elsinore Fault Zone, located approximately 16 miles southwest of the SPA, parallels the San Jacinto Fault and is part of the same right-lateral crustal plate strain system as the San Andreas and San Jacinto Faults. Elsinore Fault segments in Riverside County are the Chino Fault, Whittier Fault, Glen Ivy Fault, Temecula Fault, and Julian Fault. These fault segments are capable of maximum credible earthquakes of Mw 6.7 to 6.8. Major ground rupturing events on these fault segments would generate peak ground accelerations of 0.47 to 0.48 g (percent of gravity) for Riverside County. The working Group on California Earthquake Probabilities estimates that the probabilities of rupturing on these faults lines range from 5% to 16% between the years 1994 to 2024 (County of Riverside 2000; CGS 2010).

### ***Cucamonga Fault***

The Cucamonga Fault Zone, located approximately 11 miles northwest of the SPA, is a youthful member of the Transverse Ranges family of thrust faults, with a probable magnitude of Mw 6.0 to 7.0. This fault is the eastward extension of the Sierra Madre Fault, one of the most hazardous faults in Southern California. The fault is comprised of a series of east-west, north-dipping reverse faults that displace Holocene sediments. This frontal fault zone extends from the southern margin of the San Bernardino Mountains, disrupting modern alluvial fans and sediments associated with the Upper Santa Ana River Valley, providing evidence that the Cucamonga Fault Zone is active (County of Riverside 2000; CGS 2010; SCEDC 2013).

### ***Rialto-Colton Fault***

The late Quaternary (past 700,000 years) Rialto-Colton Fault, located approximately 3 miles northeast of the SPA (CGS 2010), defines the hydrological boundaries of aquifers in the SPA region (USGS 1963). Based on a lack of evidence of Holocene movement, the Rialto-Colton Fault is not regulated under the Alquist-Priolo Special Studies Zones.

Prominent Holocene-active and Pre-Holocene faults near the SPA are listed in Table 3.6.1, Regional Faulting and illustrated in Figure 3.6-1, Regional Faults.

**Table 3.6.1. Regional Faulting**

<b>Regional Faulting</b>	<b>Approximate Closest Distance to SPA (miles)</b>	<b>Fault Age</b>	<b>Probable Magnitude (Mw)*</b>
Rialto-Colton Fault	3	Pre-Holocene	Undetermined
San Jacinto Fault	3.5	Holocene Active	6.5 - 7.5
Loma Linda Fault	4	Holocene Active	6.5 - 7.5
Crafton Hills Fault	7	Pre-Holocene	Undetermined
San Andreas Fault	11	Holocene Active	6.8 - 8.0
Glen Helen Fault	10	Holocene Active	6.5 - 7.5
Chino Fault	17	Holocene Active	6.0 - 7.0
Casa Loma Fault	16	Holocene Active	6.5 - 7.5
Cucamonga Fault	11	Holocene Active	6.0 - 7.0
Red Hill Fault	13	Pre-Holocene/Holocene Active	6.0 - 7.0
Elsinore Fault	16	Holocene Active	6.5 - 7.5

**Sources:** CGS 2010; SCEDC 2013.

**Note:** \* Moment Magnitude (Mw) is a measure of an earthquake's magnitude (size or strength) based on its seismic energy. Magnitudes are based on a logarithmic scale (base 10) which means that every whole number you go up on the magnitude scale, recorded ground motion goes up 10 times in strength. Probable Magnitude is the estimated magnitude of a given fault if it were to activate.

### **Surface Rupture**

Surface rupture involves the displacement and cracking of the ground surface along a fault trace. Surface ruptures are visible instances of horizontal or vertical displacement, or a combination of the two, typically confined to a narrow zone along the fault. Surface rupture is more likely to occur in conjunction with active fault segments where earthquakes are large, or where the location of the movement (earthquake hypocenter) is shallow.

The Alquist-Priolo Earthquake Fault Zoning Act of 1972 regulates development near Holocene-active faults to mitigate the hazard of surface fault rupture. This act requires the State Geologist to establish regulatory zones (known as Alquist-Priolo Special Study Fault Zones) around the surface traces of Holocene-active faults and to issue

appropriate maps. Local agencies must regulate most development projects within the zones. Before a project can be permitted, cities and counties must require a geologic investigation to demonstrate that proposed buildings will not be constructed across active faults. An evaluation and written report of a specific site must be prepared by a licensed geologist. If a Holocene-active fault is found, a structure for human occupancy cannot be placed over the trace of the fault and must be set back from the fault.

The SPA is located in the U.S. Geological Survey 7.5-minute San Bernardino South quadrangle and the Riverside East quadrangle. According to the State of California's Special Studies Zones, Alquist-Priolo faults are found within the San Bernardino South quadrangle but not within the SPA (CGS 1977). Additionally, no seismic, liquefaction, or seismically induced landslide studies have been performed by the California Geological Survey in the Riverside East quadrangle. The closest Holocene-active fault to the SPA is the San Jacinto Fault Zone, located 3.5 miles to the northeast, and the San Andreas Fault, located 11 miles to the north and northeast (CGS 2010).

### **Liquefaction/Lateral Spreading**

Liquefaction occurs when partially saturated soil enters a liquid state, resulting in the soil's inability to support overlying structures. Liquefaction typically occurs in areas where the groundwater is less than 30 feet from the surface and where the soils are composed of poorly consolidated fine to medium sand. Liquefaction hazards are particularly significant along watercourses, a significant concern in the SPA given its proximity to the Santa Ana River. Lateral spreading consists of lateral movement of gently to steeply sloping saturated soil deposits that is caused by earthquake-induced liquefaction. As ground acceleration and shaking duration increase during an earthquake, liquefaction potential increases. Throughout Riverside County, liquefaction historically has been responsible for significant damage, creating problems with bridges, buildings, buried pipes, and underground storage tanks (City of Riverside 2018).

The Seismic Hazards Mapping Act of 1990 directs the California Department of Conservation, Division of Mines and Geology (now the California Geological Survey), to identify and mitigate seismic hazards. As previously discussed, seismic hazard zones, including potential liquefaction (and associated lateral spreading) and seismically induced landslide areas, have not been evaluated for the Riverside East quadrangle and limited to only a fault evaluation for the San Bernardino South quadrangle (CGS 1977). However, based on the City of Riverside Public Safety Element, the portion of SPA located within the City is a moderate to very high liquefaction zone (City of Riverside 2018). In addition, based on the San Bernardino County General Plan Geologic Hazards Overlay, the northern, Pellissier Ranch portion of the SPA is a medium liquefaction zone (County of San Bernardino 2016a).

### **Subsidence/Settlement**

Subsidence occurs when a large portion of land is displaced vertically, usually due to the withdrawal of groundwater, oil, or natural gas. Subsidence can also occur as a result of peat loss. Soils that are particularly subject to subsidence include those with high silt or clay content (USGS 2018). In Riverside County, subsidence and fissuring have been well documented since the early 1960s. Most of the early cases affected only agricultural land or open space. Since the late 1980s, increased urbanization has seen impacts on structures designed for human occupancy. Subsidence and fissuring have been caused by falling groundwater tables and by hydrocollapse when groundwater tables rise. However, the majority of the SPA, which is located within Riverside County, is not in an area of documented subsidence or subsidence susceptibility (County of Riverside 2000).

The northern portion of the SPA, within the southern portion of the City of Colton, overlies the Riverside-Arlington subbasin of the Upper Santa Ana Valley groundwater basin. The northern portion of the Upper Santa Ana Valley groundwater basin (i.e., the Rialto-Colton subbasin, north of Colton) is considered at medium risk of future subsidence, but is not currently subsiding. No data is currently available regarding the subsidence in the Riverside-Arlington subbasin; however, considering this subbasin is farther from the areas of historic subsidence, in combination with a lack of subsidence throughout the entire region in recent years, it is reasonable to assume that the risk level for this subbasin is the same or less as the Rialto-Colton subbasin. Effective groundwater management has helped to reduce the risk level, and it is expected that continued effective management will decrease the subsidence risk, although not eliminate it (City of Colton 2018a; USGS 2012).

### Expansive Soils

Expansive soils tend to swell with seasonal increases in soil moisture in the winter months and shrink as soils become drier in the summer months. Repeated shrinking and swelling of the soil can lead to stress and damage of structures, foundations, fill slopes and other associated facilities. Expansive soils owe their characteristics to the presence of swelling clay minerals. Because the SPA is underlain primarily by sandy alluvial soils, it is unlikely that expansive soils are present on the site. In addition, the City of Riverside Public Safety Element (City of Riverside 2018) indicates that no expansive soils are present within the SPA.

### Paleontological Resources

As indicated in Society of Vertebrate Paleontology guidelines, the assessment for paleontological resources is based on the “the potential for yielding abundant or significant vertebrate fossils or for yielding a few significant fossils, large or small, vertebrate, invertebrate, plant, or trace fossils and (b) the importance of recovered evidence for new and significant taxonomic, phylogenetic, paleoecologic, taphonomic, biochronologic, or stratigraphic data” (SVP 2010). Paleontological resource sensitivity ratings are therefore high for geologic units where previous important fossils have been recovered, and no potential is identified for metamorphic and plutonic igneous formations. As described under Regional Geology above, the Northside SPA is underlain by Younger Quaternary alluvial deposits, Older Quaternary alluvial deposits, and Igneous bedrock. Refer to Figure 3.6-2, Paleontological Resources Sensitivity Map, for an illustration of these formations and associated paleontological sensitivity. Below is a summary of the paleontological sensitivity for these underlying geologic formations:

- **Igneous bedrock** has no potential to yield paleontological resources, and thus, has no paleontological resource sensitivity.
- **Younger Quaternary alluvial deposits** have a low paleontological resource sensitivity.
- **Pleistocene age sedimentary deposits** mapped on the surface and likely underlying the younger alluvial deposits, have produced scientifically significant vertebrates and have a high paleontological resource sensitivity (McLeod 2019).
- **Older Quaternary alluvial deposits**, characteristically reddish-brown in color, have been known to produce Ice Age mammals in the project vicinity and throughout Riverside County, as confirmed by the records search results obtained from the Natural History Museum of Los Angeles County (Appendix E).

A museum records search was completed by Samuel McLeod, PhD, at the Natural History Museum of Los Angeles County in November 2019 (Appendix E). As indicated above, Pleistocene age sedimentary deposits mapped as unnamed older Quaternary alluvial deposits in the area have yielded paleontological resources. In summary, the records search did not identify any paleontological resources within the Northside SPA or a 1-mile radius buffer.

Additional resources were documented nearby. More specifically, fossil locality LACM 7811, located west-southwest of the SPA, west of Mira Loma along Sumner Avenue, and north of Cloverdale Road, yielded a specimen of whipsnake (*Masticophis*), from a depth of 9 to 11 feet below the ground surface (McLeod 2019). A second locality, LACM 1207, located south-southwest of the SPA, between the Cities of Corona and Norco, produced a fossil specimen of deer (*Odocoileous*) (McLeod 2019).

### 3.6.2 Relevant Plans, Policies, and Ordinances

#### **Federal**

No federal laws, plans, or policies related to geology and soils are applicable to the Northside Specific Plan.

#### **State**

##### ***Alquist-Priolo Earthquake Fault Zoning Act***

The Alquist-Priolo Earthquake Fault Zoning Act (California Public Resources Code Section 2621) was enacted by the State of California in 1972 to address the hazard of surface faulting to structures for human occupancy. The Alquist-Priolo Earthquake Fault Zoning Act was a direct result of the 1971 San Fernando Earthquake in Southern California, which was associated with extensive surface fault ruptures that damaged homes, commercial buildings, and other structures. The primary purpose of the Alquist-Priolo Earthquake Fault Zoning Act is to prevent the construction of buildings intended for human occupancy on the surface traces of active faults. The Alquist-Priolo Earthquake Fault Zoning Act is also intended to provide citizens with increased safety and minimize the loss of life during and immediately following earthquakes, by facilitating seismic retrofitting to strengthen buildings against ground shaking.

The Alquist-Priolo Earthquake Fault Zoning Act requires the State Geologist to establish regulatory zones, known as “earthquake fault zones,” around the surface traces of active faults and to issue appropriate maps to assist cities and counties in planning, zoning, and building regulation functions. Maps are distributed to all affected cities and counties for the controlling of new or renewed construction and are required to sufficiently define potential surface rupture or fault creep. The State Geologist is charged with continually reviewing new geologic and seismic data and revising existing zones and delineating additional earthquake fault zones when warranted by new information.

Local agencies must enforce the Alquist-Priolo Earthquake Fault Zoning Act in the development permit process, where applicable, and may be more restrictive than state law requires. According to the Alquist-Priolo Earthquake Fault Zoning Act, before a project can be permitted, cities and counties shall require a geologic investigation, prepared by a licensed geologist, to demonstrate that buildings will not be constructed across active faults. If an active fault is found, a structure for human occupancy cannot be placed over the trace of the fault and must be set back a minimum of 50 feet. The Alquist-Priolo Earthquake Fault Zoning Act and its regulations are presented in California Department of Conservation, California Geological Survey, Special Publication 42, Fault-Rupture Hazard Zones in California.

##### ***Seismic Hazards Mapping Act***

In order to address the effects of strong ground shaking, liquefaction, landslides, and other ground failures due to seismic events, the State of California passed the Seismic Hazards Mapping Act of 1990 (California Public Resources Code Sections 2690–2699). Under the Seismic Hazards Mapping Act, the State Geologist is required

to delineate “seismic hazard zones.” Cities and counties must regulate certain development projects within these zones until the geologic and soil conditions of the project site are investigated and appropriate mitigation measures, if any, are incorporated into development plans. The State Mining and Geology Board provides additional regulations and policies to assist municipalities in preparing the Safety Element of their General Plan and encourage land use management policies and regulations to reduce and mitigate those hazards to protect public health and safety.

Under California Public Resources Code Section 2697, cities and counties shall require, prior to the approval of a project located in a seismic hazard zone, a geotechnical report defining and delineating any seismic hazard. Each city or county shall submit one copy of each geotechnical report, including mitigation measures, to the State Geologist within 30 days of its approval. California Public Resources Code Section 2698 does not prevent cities and counties from establishing policies and criteria that are stricter than those established by the State Mining and Geology Board.

State publications supporting the requirements of the Seismic Hazards Mapping Act include the California Geological Survey Special Publication 117A, Guidelines for Evaluating and Mitigating Seismic Hazards in California, and Special Publication 118, Recommended Criteria for Delineating Seismic Hazard Zones in California. The objectives of Special Publication 117A are to assist in the evaluation and mitigation of earthquake-related hazards for projects within designated zones of required investigations and to promote uniform and effective statewide implementation of the evaluation and mitigation elements of the Seismic Hazards Mapping Act. Special Publication 118 implements the requirements of the Seismic Hazards Mapping Act in the production of Probabilistic Seismic Hazard Maps for the state.

### ***California Building Standards Code***

The state regulations protecting structures from geo-seismic hazards are contained in the California Building Code (CBC; 24 CCR, Part 2), which is updated on a triennial basis. These regulations apply to public and private buildings in the state. Until January 1, 2008, the CBC was based on the then-current Uniform Building Code and contained additions, amendments, and repeals specific to building conditions and structural requirements of the State of California. The 2019 CBC, effective January 1, 2020, is based on the current (2018) International Building Code and enhances the sections dealing with existing structures. Seismic-resistant construction design is required to meet more stringent technical standards than those set by previous versions of the CBC.

Chapters 16 and 16A of the 2019 CBC include structural design requirements governing seismically resistant construction, including (but not limited to) factors and coefficients used to establish seismic site class and seismic occupancy category for the soil/rock at the building location and the proposed building design. Chapters 18 and 18A include (but are not limited to) the requirements for foundation and soil investigations (Sections 1803 and 1803A); excavation, grading, and fill (Sections 1804 and 1804A); damp-proofing and water-proofing (Sections 1805 and 1805A); allowable load-bearing values of soils (Sections 1806 and 1806A); the design of foundation walls, retaining walls, embedded posts and poles (Sections 1807 and 1807A), and foundations (Sections 1808 and 1808A); and design of shallow foundations (Sections 1809 and 1809A) and deep foundations (Sections 1810 and 1810A). Chapter 33 of the 2016 CBC includes (but is not limited to) requirements for safeguards at work sites to ensure stable excavations and cut or fill slopes (Section 3304).

Construction activities are subject to occupational safety standards for excavation and trenching, as specified in the California Safety and Health Administration regulations (Title 8 of the California Code of Regulations) and in Chapter 33 of the CBC. These regulations specify the measures to be used for excavation and trench work where workers could be exposed to unstable soil conditions. The proposed plan would be required to employ these safety measures during excavation and trenching.

### ***Construction General Permit (SWRCB Order 2009-0009-DWQ, as amended)***

For stormwater discharges associated with construction activity in the State of California, the State Water Resources Control Board (SWRCB) has adopted the General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (Construction General Permit) to avoid and minimize water quality impacts attributable to such activities. In accordance with National Pollutant Discharge Elimination System Phase I Permit requirements, the Construction General Permit applies to all projects in which construction activity disturbs 1 acre or more of soil. Construction activity subject to this permit includes clearing, grading, and disturbances to the ground, such as stockpiling and excavation. The Construction General Permit requires the development and implementation of a stormwater pollution prevention plan (SWPPP), which would include and specify water quality best management practices (BMPs) designed to prevent pollutants from contacting stormwater and keep all products of erosion from moving off site into receiving waters. Routine inspection of all BMPs is required under the provisions of the Construction General Permit, and the SWPPP must be prepared and implemented by qualified individuals as defined by the SWRCB.

### **California Environmental Quality Act—Paleontological Resources**

Paleontological resources are limited, nonrenewable resources of scientific, cultural, and educational value and are afforded protection under state laws and regulations. Paleontological resources are explicitly afforded protection by the California Environmental Quality Act (CEQA), specifically in Section VII(f) of CEQA Guidelines Appendix G, the “Environmental Checklist Form,” which addresses the potential for adverse impacts to “unique paleontological resource[s] or site[s] or ... unique geological feature[s].” This provision covers fossils of signal importance—remains of species or genera new to science, for example, or fossils exhibiting features not previously recognized for a given animal group—as well as localities that yield fossils significant in their abundance, diversity, preservation, and so forth. Further, CEQA provides that generally, a resource shall be considered “historically significant” if it has yielded or may be likely to yield information important in prehistory (California Public Resources Code 15064.5 [a][3][D]). Paleontological resources would fall within this category. The California Public Resources Code, Chapter 1.7, Sections 5097.5 and 30244 also regulates removal of paleontological resources from state lands, defines unauthorized removal of fossil resources as a misdemeanor, and requires mitigation of disturbed sites.

### **Local**

#### ***City of Riverside***

##### ***City of Riverside Building Code***

As mandated by the California Building Standards Commission, the City of Riverside has adopted by ordinance the CBC, 2019 edition, as described above.

##### ***City of Riverside Municipal Code (Public Utilities)***

The Riverside Municipal Code Title 14, Section 14.08.030 – Connection to public sewer required. All homes and any other structures must be properly connected to a public sewer whenever the property abuts upon a right-of-way in which there exists a public sewer to which connection may be made. Additionally if a house or structure is located within an area where the use of a septic tank poses a potential contamination risk to the City’s drinking water wells in the area, as specified by resolution of City Council, all new houses or structures located within such area must be properly connected to the public sewer system. .

### City of Riverside Municipal Code (Grading)

The Riverside Municipal Code Title 17 and 18 – Minimum Grading Standards and General Requirements (Section 17.28.010) provides standards and general requirements pertaining to all grading on projects requiring a grading permit. Riverside Municipal Code Title 18.200. 010, Grading, requires that tentative map approvals include compliance with the City’s excavation and grading regulations, as established in Title 17. Riverside Municipal Code Title 18.200. 020, Soil Erosion Control, requires that tentative map approvals subject to soil erosion include submittal of detailed plans and specifications indicating the actions to be taken to prevent erosion, including the prevention of sedimentation or damage to off-site property.

### City of Riverside General Plan 2025 – Public Safety Element

The 2007 City of Riverside General Plan 2025 Public Safety Element (amended 2018) identifies the primary geologic hazards in the city, with respect to development of critical structures and structures for human occupancy. This public safety element aims to mitigate and minimize potential hazards caused by fault ground rupture, liquefaction, dam failure, and slope failure. In order to achieve this goal, the City of Riverside enacted Objective PS-1:

**Objective PS-1:** Minimize the potential damage to existing and new structures and loss of life that may result from geologic and seismic hazards.

**Policy PS-1.1:** Ensure that all new development in the City abides by the most recently adopted City and State seismic and geotechnical requirements.

**Policy PS-1.2:** Locate important public facilities of City importance outside of geologically hazardous areas.

**Policy PS-1.4:** Use open space easements and other regulatory techniques to prohibit development and avoid creating public safety hazards where geologic instability is identified and cannot be mitigated.

### **City of Riverside General Plan 2025 – Historic Preservation Element**

The City of Riverside amended the Historic Preservation Element Chapter of the General Plan 2025 in 2012. The Historic Preservation Element provides guidance in developing and implementing activities that ensure that the identification, designation and protection of cultural resources are integrated with development and planning in the City of Riverside.

**Policy HP-1.3:** The City shall protect sites of archaeological and paleontological significance and ensure compliance with all applicable State and federal cultural resources protection and management laws in its planning and project review process.

**Policy HP 1.4:** The City shall protect natural resources such as geological features, heritage trees, and landscapes in the planning and development review process and in park and open space planning.

**City of Colton**

***City of Colton Municipal Code (Grading)***

The Colton Municipal Code Chapter 16.72, Grading and Erosion Control requires that every development map be conditioned on compliance with City requirements for grading and erosion control, including the prevention of sedimentation or damage to offsite property.

***City of Colton Building Code***

As mandated by the California Building Standards Commission, the City of Colton has adopted by ordinance the CBC, 2019 edition, as described above.

***City of Colton General Plan – Safety Element***

The City of Colton General Plan Safety Element (City of Colton 2018b) addresses geologic, seismic, and public safety hazards as part of the City planning program. In order to address potential geologic hazards, the City has enacted the following goal and policies:

**GOAL S-1:** Improve the community’s resilience to seismic and geologic hazards by ensuring the integrity of the built environment.

**Policy S-1.1:** Maintain up-to-date records and information on seismic and geologic event activity within the city and surrounding areas.

**Policy S-1.2:** Identify if existing and new structures are located within Earthquake Fault Hazard Zones and in areas at risk from liquefaction, landslides, and subsidence, and take corrective action to minimize the risk of injury or damage from seismic or geologic events.

**Policy S-1.3:** Encourage the retrofitting of buildings and other structures to minimize the damage caused by earthquakes and other seismic events.

**Policy S-1.4:** Require new development to observe 100-foot setbacks from all faults, active or inactive.

**Policy S-1.5:** Require new development to observe 30-foot setbacks from all hillsides and other sloped surfaces that show medium to high landslide susceptibility.

**Policy S-1.6:** Monitor signs of subsidence in conjunction with rates of groundwater extraction from the Upper Santa Ana Valley basin.

**Policy S-1.7:** Restrict development in areas prone to liquefaction or subsidence unless an independent geotechnical investigation determines the site is safe for development.

## Riverside County

### *Building and Fire Codes*

Every 3 years, Riverside County's Building and Fire Codes are adapted from the CBC (CCR Title 24), which includes both building and fire codes. These codes establish site-specific investigation requirements, construction standards, and inspection procedures to ensure that development authorized by the County of Riverside does not pose a threat to the health, safety, or welfare of the public. The CBC contains minimum baseline standards to guard against unsafe development. This ordinance also adopts, in some cases with modification to a stricter standard, a number of California's Title 24 codes (fire, building, plumbing, electrical, etc.). The Riverside County Department of Building and Safety provides technical expertise in reviewing and enforcing these codes.

### *Fault Ordinance*

This ordinance establishes the policies and procedures used by the County of Riverside to implement the Alquist-Priolo Earthquake Fault Zoning Act. Among other things, it requires all projects proposed within an "earthquake fault zone," as shown on the maps prepared by the State Geologist, to comply with the provisions of the act. This ordinance establishes regulations for construction, including for grading, slopes and compaction, erosion control, retaining wall design and earthquake fault zone setbacks.

### *Dust Control*

This ordinance establishes requirements for the control of blowing sand within county-designated "Agricultural Dust Control Areas." It defines activities that may contribute to wind erosion, identifies restrictions on activities within these areas, establishes penalties for violation of the ordinance and identifies procedures necessary to obtain a valid permit.

### *General Plan – Safety Element*

In 2019, the County of Riverside published the Safety Element chapter of the County of Riverside General Plan, in part to reduce the impacts of future geologic disasters (County of Riverside 2019). The Safety Element summarizes mitigation goals and specific policies related to seismic hazards, as well as slope and soil instability hazards. In order to achieve these goals, the County has adopted the following policies:

- S 2.1** Minimize fault rupture hazards through enforcement of Alquist-Priolo Earthquake Fault Zoning Act provisions and the following policies:
- a) Require geologic studies or analyses for critical structures, and lifeline, high-occupancy, schools, and high-risk structures, within 0.5 miles of all Quaternary to historic faults shown on the Earthquake Fault Studies Zones map.
  - b) Require geologic trenching studies within all designated Earthquake Fault Studies Zones, unless adequate evidence, as determined and accepted by the Riverside County Engineering Geologist, is presented. The County of Riverside may require geologic trenching of non-zoned faults for especially critical or vulnerable structures or lifelines.
  - c) Require that lifelines be designed to resist, without failure, their crossing of a fault, should fault rupture occur.
  - d) Support efforts by the California Department of Conservation, California Geological Survey to develop geologic and engineering solutions in areas of ground deformation due to faulting and seismic activity, in those areas where a through-going fault cannot be reliably located.

- S 2.2** Require geological and geotechnical investigations in areas with potential for earthquake-induced liquefaction, landsliding or settlement, for any building proposed for human occupancy and any structure whose damage would cause harm, except for accessory buildings.
- S 2.3** Require that a state-licensed professional investigate the potential for liquefaction in areas designated as underlain by “Susceptible Sediments” and “Shallow Ground Water” for all general construction projects, except for accessory buildings.
- S 2.4** Require that a State-licensed professional investigate the potential for liquefaction in areas identified as underlain by “Susceptible Sediments” for all proposed critical facilities.
- S 2.5** Require that engineered slopes be designed to resist seismically- induced failure. For lower-risk projects, slope design could be based on pseudo-static stability analyses, using soil engineering parameters that are established on a site-specific basis. For higher-risk projects, the stability analyses should factor in the intensity of expected ground shaking, using a Newmark-type deformation analysis.
- S 2.6** Require that cut and fill transition lots be over-excavated to mitigate the potential of seismically-induced differential settlement.
- S 2.7** Require a 100% maximum variation of fill depths beneath structures to mitigate the potential of seismically-induced differential settlement.
- S 3.1** Require the following in landslide potential hazard management zones, or when deemed necessary by the California Environmental Quality Act:
- a) Preliminary geotechnical and geologic investigations.
  - b) Evaluations of site stability, including any possible impact on adjacent properties, before final project design is approved.
  - c) Consultant reports, investigations, and design recommendations required for grading permits, building permits, and subdivision applications be prepared by state-licensed professionals.
- S 3.2** Require that stabilized landslides be provided with redundant drainage systems. Provisions for the maintenance of subdrains must be designed into the system.
- S 3.3** Before issuance of building permits, require certification regarding the stability of the site against adverse effects of rain, earthquakes, and subsidence.
- S 3.4** Require adequate mitigation of potential impacts from erosion, slope instability, or other hazardous slope conditions, or from loss of aesthetic resources for development occurring on slope and hillside areas.
- S 3.5** During permit review, identify and encourage mitigation of onsite and offsite slope instability, debris flow, and erosion hazards on lots undergoing substantial improvements.

- S 3.6** Require grading plans, environmental assessments, engineering and geologic technical reports, irrigation and landscaping plans, including ecological restoration and revegetation plans, as appropriate, in order to assure the adequate demonstration of a project's ability to mitigate the potential impacts of slope and erosion hazards and loss of native vegetation.
- S 3.7** Support mitigation on existing public and private property located on unstable hillside areas, especially slopes with recurring failures where Riverside County property or public right-of-way is threatened from slope instability, or where considered appropriate and urgent by the Riverside County Engineer, Fire, or Sheriff Department.
- S 3.8** Require geotechnical studies within documented subsidence zones, as well as zones that may be susceptible to subsidence, as identified in Figure S-7 and the Technical Background Report, prior to the issuance of development permits. Within the documented subsidence zones of the Coachella, San Jacinto, and Elsinore valleys, the studies must address the potential for reactivation of these zones, consider the potential impact on the project, and provide adequate and acceptable mitigation measures.

### General Plan – Open Space Element

The Multipurpose Open Space Element of the Riverside County General Plan (County of Riverside 2015a) identifies the occurrence of important historical, archaeological, and paleontological resources within the County. Several policies of the County's General Plan Multipurpose Open Space Element address paleontological resources directly:

- OS 19.8** Whenever existing information indicates that a site proposed for development may contain biological, paleontological, or other scientific resources, a report shall be filed stating the extent and potential significance of the resources that may exist within the proposed development and appropriate measures through which the impacts of development may be mitigated.
- OS 19.9** When existing information indicates that a site proposed for development may contain paleontological resources, a paleontologist shall monitor site-grading activities with the authority to halt grading to collect uncovered paleontological resources, curate any resources collected with an appropriate repository, and file a report with the Planning Department documenting any paleontological resources that are found during the course of site grading.
- OS 19.10** Transmit significant development applications subject to CEQA to the San Bernardino County Museum (SBCM) for review, comment, and/or preparation of recommended conditions of approval with regard to paleontological resources.

If the San Bernardino County Museum is found to be unresponsive to review requests within 30 calendar days, a suitable alternative, such as the Western Science Center or the Natural History Museum of Los Angeles County, may be contacted.

### 3.6.3 Thresholds of Significance

The significance criteria used to evaluate the proposed Northside Specific Plan impacts to geology and soils are based on Appendix G of the CEQA Guidelines. According to Appendix G of the CEQA Guidelines, a significant impact related to geology and soils would occur if the project would:

1. Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:
  - a. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area based on other substantial evidence of as known fault. Refer to Division of Mines and Geology Special Publication 42.
  - b. Strong seismic ground shaking.
  - c. Seismic-related ground failure, including liquefaction.
  - d. Landslides.
2. Result in substantial soil erosion or the loss of topsoil.
3. Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the plan, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse.
4. Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property.
5. Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of waste water.
6. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.

### 3.6.4 Impacts Analysis

***Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:***

- a. ***Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area based on other substantial evidence of as known fault. Refer to Division of Mines and Geology Special Publication 42.***

**No Impact.** The SPA is not located within an Alquist-Priolo Earthquake Fault Zone. The closest such zone is located along the San Jacinto Fault, approximately 3.5 miles northeast of the SPA. In addition, no known faults traverse the SPA. As a result, the risk of fault rupture in the SPA is low. The proposed Northside Specific Plan would not directly or indirectly cause or exacerbate existing fault rupture risks from the construction of new buildings and associated infrastructure on the SPA. As a result, no impacts related to surface rupture of a known earthquake fault would occur.

- b. ***Strong seismic ground shaking?***

**Less-than-Significant Impact.** The SPA is located in a seismically active area. Movement along major faults in proximity to the SPA, such as the Cucamonga, San Jacinto, Elsinore, and San Andreas Fault Zones are capable of producing moderate to major earthquakes. However, the proposed Northside Specific Plan would be constructed in accordance with State, County, and City building codes. As with all development

within the County of Riverside, City of Riverside, and City of Colton, development within the SPA would be required to comply with the seismic safety requirements of the CBC (**CM-GEO-1**), and the County of Riverside (**CM-GEO-2a**), City of Riverside (**CM-GEO-2b**), and City of Colton Building Codes (**CM-GEO-2c**). The CBC provides procedures for earthquake-resistant structural design that include considerations for on-site soil conditions, occupancy, and the configuration of the structure, including the structural system and height. Although substantial damage to structures may be unavoidable during large earthquakes, the proposed structures would be designed to resist structural collapse and thereby provide reasonable protection from serious injury, catastrophic property damage, and loss of life.

As previously discussed, Chapters 18 and 18A of the CBC include (but are not limited to) the requirements for foundation and soil investigations (Sections 1803 and 1803A); excavation, grading, and fill (Sections 1804 and 1804A); damp-proofing and water-proofing (Sections 1805 and 1805A); allowable load-bearing values of soils (Sections 1806 and 1806A); the design of foundation walls, retaining walls, embedded posts and poles (Sections 1807 and 1807A), and foundations (Sections 1808 and 1808A); and design of shallow foundations (Sections 1809 and 1809A) and deep foundations (Sections 1810 and 1810A). In conjunction with these CDC requirements (**CM-GEO-1**), as well as County of Riverside General Plan Safety Element (**CM-GEO-2c**) and City policies (**CM-GEO-2a** and **CM-GEO-2b**) aimed at mitigating and minimizing geologic hazards, the proposed Northside Specific Plan would not directly or indirectly cause substantial adverse effects involving strong seismic ground shaking (City of Colton 2013; County of Riverside 2015b; City of Riverside 2018). Impacts would be less than significant.

**c. Seismic-related ground failure, including liquefaction?**

**Less-than-Significant Impact.** As discussed previously, the proximity of the SPA to the Santa Ana River, coupled with sandy soil underlying the SPA, creates conditions susceptible to liquefaction. Hazards associated with soil liquefaction and seismic-related ground failure include temporary loss of soil-bearing capacity, lateral spreading, differential compaction, and slope instability. In regions with extremely saturated, unstable soils, select areas of soil may be stabilized using a gelling agent prior to construction; shoring may be required to stabilize temporary excavations; and structural piles may be required for building foundations. In locations with high groundwater levels, dewatering may be required to ensure a dry construction area during foundation construction. In addition, in compliance with the CBC (**CM-GEO-1**), the County of Riverside (**CM-GEO-2c**), City of Riverside (**CM-GEO-2a**), and City of Colton (**CM-GEO-2b**) would require completion of geotechnical studies to address any geologic hazards associated with liquefaction and seismic-related ground failure (refer to **CM-GEO-1**) (City of Colton 2013; County of Riverside 2015b; City of Riverside 2018). Although proposed development within the SPA could be subject to liquefaction, the proposed Northside Specific Plan would not increase or exacerbate the potential for liquefaction to occur and therefore would not directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving seismically related ground failure, including liquefaction. Impacts would be less than significant.

**d. Landslides?**

**Less-than-Significant Impact.** Site topography ranges from approximately 940 feet above mean sea level in the northeast region to 800 feet above mean sea level in the southwest. The site abuts the La Loma Hills in the north then slopes gently to the southwest towards the Santa Ana River, at a gradient of 0% to 8%. The northeast portion of the site located at the base of the moderate to steeply sloping hills is located outside the boundary of Subarea 1 (see Figure 2-3, Topographic Map, and Figure 2-4, Aerial Photograph in Chapter 2) and would not be developed under the Northside Specific Plan. As a result, development associated with the Northside Specific Plan would not be susceptible to landslides. Grading and construction would be completed in compliance with CBC regulations (**CM-GEO-1**) and compliance with County of Riverside Ordinances (**CM-GEO-2c**) and City of Riverside (**CM-GEO-2a**) and City of Colton Municipal Codes (**CM-GEO-2b**) related to grading, thus reducing the potential for slope instability to occur (City of Colton 2013; County of Riverside 2015b; City of Riverside 2018). In addition, implementation of the Northside Specific Plan would not directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving landslides. Impacts are considered less than significant.

***Would the project result in substantial soil erosion or the loss of topsoil?*****Construction**

**Less-than-Significant Impact.** The SPA is partially undeveloped with a very low density residential district in the north, developed urban uses (industrial, office park, and residential) in the east, developed urban uses (Fairmont Park, Fairmont Golf Course, residential, commercial offices) and the Santa Ana River trail to the south, and the Santa Ana River to the west. As detailed in Section 2.4.1, Proposed Land Uses, the project would allow for additional development and redevelopment to occur.

As such, there is a potential for erosion and loss of topsoil during the development of the SPA. State and federal National Pollutant Discharge Elimination System requirements include preparation and implementation of a SWPPP for projects with cumulative ground disturbance in excess of 1 acre (**CM-HYD-1**). In compliance with Construction General Permit requirements, the SWPPP would establish erosion and sediment control BMPs for construction activities. Typical examples of erosion-related construction BMPs include:

1. silt fences and/or fiber rolls installed along limits of work and/or the project construction site;
2. stockpile containment and exposed soil stabilization structures (e.g., visqueen plastic sheeting, fiber rolls, gravel bags, and/or hydroseed);
3. runoff control devices (e.g., fiber rolls, gravel bag barriers/chevrons, etc.) used during construction phases conducted during the rainy season;
4. wind erosion (dust) controls;
5. tracking controls at the site entrance, including regular street sweeping and tire washes for equipment; and
6. regular inspections and maintenance of BMPs.

These BMPs would be refined and/or added to as necessary by a qualified SWPPP professional to meet the performance standards in the Construction General Permit.

In addition, development activities would comply with County and City grading and erosion control standards to minimize soil erosion (**CM-GEO-2a**, **CM-GEO-2b**, and **CM-GEO-2c**) (City of Colton 2013; County of Riverside 2015b; City of Riverside 2018). Compliance with the Construction General Permit, as well as with Riverside County Ordinances and Riverside and Colton City Municipal Codes would ensure that soil erosion or loss of topsoil impacts would be less than significant.

### Operation

**Less-than-Significant Impact.** Upon Northside Specific Plan implementation, the site would be graded and paved, greatly reducing the possibility for soil erosion or loss of topsoil. In addition, paving of the site would not result in a loss of planned/zoned uses (e.g., agricultural land) or resources that would depend on the presence of topsoil. As a result, Northside Specific Plan operations would result in less-than-significant impacts associated with soil erosion and loss of topsoil.

***Would the project be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?***

**Less-than-Significant Impact.** As described above for Threshold a(iii), the Northside Specific Plan would not increase the potential for liquefaction and lateral spreading to occur. Therefore, potential impacts associated with liquefaction/lateral spreading would be less than significant and no mitigation is required.

With respect to subsidence, although not currently subsiding, the northern portions of the City of Colton, as well as portions of Riverside County have historically been prone to subsidence. However, given the trends in water conservation, controlled groundwater pumping, and an associated rise in groundwater levels, the hazard for regional ground subsidence from groundwater lowering in the SPA is very low. In addition, development within the SPA would not create the potential for subsidence to occur. Therefore, potential impacts associated with subsidence would be less than significant, and no mitigation is required.

In regards to collapsible soils, young axial channel deposits are the dominant geologic unit underlying the SPA. These deposits are predominately present in the north and southwest portion of the site, abutting the Santa Ana River to the west and extending to the southwest edge of the site. Small areas of these deposits can also be found in the southeast area of the site. These channel deposits consist of unconsolidated sandy soils that may be prone to collapse and may collapse as a result of construction within the SPA. Grading in such areas typically consists of over-excavation of loose, unconsolidated materials until such a depth that competent material is encountered. The excavated area would then typically be backfilled with compacted soil until the finished grade is achieved. The proposed plan would be constructed in compliance with CBC requirements (**CM-GEO-1**), including allowable load-bearing values of soils (Sections 1806 and 1806A); the design of embedded posts and poles (Sections 1807 and 1807A), and foundations (Sections 1808 and 1808A); and design of deep foundations (Sections 1810 and 1810A), which are designed to assure safe construction requirements appropriate to site conditions. Therefore, potential impacts associated with collapsible soils would be less than significant.

As described above for Threshold a(iv), the SPA is located in an area with low potential for landslides. Compliance with the CBC, the County of Riverside Ordinances, and the City of Riverside and City of Colton Municipal Codes (**CM-GEO-1**, **CM-GEO-2a**, **CM-GEO-2b**, and **CM-GEO-2c**) (City of Colton 2013; County of Riverside 2015b; City of Riverside 2018), would ensure that impacts related to landslides are reduced to less-than-significant levels.

***Would the project be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?***

**Less-than-Significant Impact.** Expansive soils are clay-rich soils that shrink when dry and swell when wet. This change in volume can exert substantial pressure on foundations, resulting in structural distress and/or damage. Most of the SPA is underlain by sandy alluvial soils, which are likely not prone to expansion. In addition, the City of Riverside General Plan 2025 Public Safety Element (City of Riverside 2018) indicates that no expansive soils are present within the SPA. Northside Specific Plan construction would be in compliance with the CBC, and County and City building codes and requirements (**CM-GEO-1, CM-GEO-2a, CM-GEO-2b, and CM-GEO-2c**), and as a result, would not increase or exacerbate the potential for expansive soils to create substantial direct or indirect risks to life or property (City of Colton 2013; County of Riverside 2015b; City of Riverside 2018). As a result, impacts would be less than significant.

***Would the project have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?***

**No Impact.** Much of the proposed SPA is currently served by sewer infrastructure, and new development would require sewer connections. To the extent feasible, the addition of new sewer infrastructure to serve new developments may provide opportunities for existing dwellings, which are currently on septic, to be connected to sewer. No septic tanks or alternative wastewater disposal is proposed; therefore, the implementation of the proposed Northside Specific Plan would have no impact.

***Would the proposed project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?***

**Potentially Significant.** Shallow excavations within mapped areas of younger, Holocene-age Quaternary alluvium are unlikely to uncover any significant paleontological resources. However, sedimentary deposits correlative with the Pleistocene-age may be impacted at an unknown depth below native topsoil and artificial fill, and therefore future development with mass excavation within areas with Pleistocene-age deposits may encounter important and unique paleontological resources. Thus, future development allowed under the Northside Specific Plan where Pleistocene-age geologic formations occur could result in a potentially significant paleontological resource impact (**Impact GEO-1**). Refer to Figure 3.6-2 for the location of areas with high paleontological sensitivity.

### 3.6.5 Mitigation Measures

To reduce **Impact GEO-1** related to potential subsurface paleontological resource impacts from future development allowed under the Northside Specific Plan, the following mitigation measure shall be implemented:

**MM-GEO-1** Prior to issuance of a grading permit within areas identified with a high paleontological sensitivity (older Quaternary alluvial deposits), a Qualified Paleontologist shall be retained per the Society of Vertebrate Paleontology guidelines (SVP 2010). The paleontologist shall prepare a Paleontological Resources Impact Mitigation Program (PRIMP) for the project. The PRIMP shall be consistent with the Society of Vertebrate Paleontology guidelines and shall outline requirements for pre-construction meeting attendance and worker environmental awareness training, where monitoring is required within the Northside Specific Plan Area based on construction plans and/or geotechnical reports, procedures for adequate paleontological monitoring and discoveries treatment, and paleontological methods (including sediment sampling for microvertebrate fossils),

reporting, and collections management. The Qualified Paleontologist shall attend the pre-construction meeting, and a paleontological monitor shall be on site during rough grading and other ground-disturbing activities in previously undisturbed, fine-grained older Quaternary alluvial deposits. These deposits may be encountered at shallow depths below the surface. Within developed areas of Northside Specific Plan Area, this depth is assumed to be at least 5 feet below the ground surface. In the event that paleontological resources (e.g., fossils) are unearthed during grading, the paleontological monitor shall temporarily halt and/or divert grading activity to allow recovery of paleontological resources. The area of discovery shall be roped off with a 50-foot-radius buffer. Once documentation and collection of the find is completed pursuant to the PRIMP and the Society of Vertebrate Paleontology guidelines, the monitor shall allow grading to recommence in the area of the find. Curation and storage of salvaged specimens in an approved repository institution shall be completed for all significant resources discovered and collected.

### 3.6.6 Level of Significance After Mitigation

Future development allowed under the Northside Specific Plan where Pleistocene-age geologic formations occur could result in a potentially significant paleontological resource impact (**Impact GEO-1**). With implementation of **MM-GEO-1**, impacts would be less than significant. However, the City of Riverside does not have jurisdiction over development projects that occur within the Northside Specific Plan areas within the County of Riverside or City of Colton; thus, the City of Riverside cannot legally impose this mitigation measure within those jurisdictions. For this reason, this impact is considered significant and unavoidable.

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## 3.7 Greenhouse Gas Emissions

This section describes the existing greenhouse gas conditions of the Northside Specific Plan Area (SPA) and vicinity, identifies associated regulatory requirements, evaluates potential impacts, and identifies mitigation measures (MMs) related to implementation of the Northside Specific Plan. The information and analysis presented in this section is based on the Riverside-Colton Northside Specific Plan Baseline Opportunities and Constraints Analysis prepared by Rick Engineering (2017; referred to herein as the “baseline analysis”) and provided as Appendix B. In addition, greenhouse gas emission calculations were completed as a part of this analysis utilizing California Emissions Estimator Model (CalEEMod) and are included as Appendix D.

### 3.7.1 Existing Conditions

#### 3.7.1.1 Climate Change Overview

Climate change refers to any significant change in measures of climate, such as temperature, precipitation, or wind patterns, lasting for an extended period of time (decades or longer). The Earth’s temperature depends on the balance between energy entering and leaving the planet’s system. Many factors, both natural and human, can cause changes in Earth’s energy balance, including variations in the sun’s energy reaching Earth, changes in the reflectivity of Earth’s atmosphere and surface, and changes in the greenhouse effect, which affects the amount of heat retained by Earth’s atmosphere (EPA 2017a).

The greenhouse effect is the trapping and build-up of heat in the atmosphere (troposphere) near the Earth’s surface. The greenhouse effect traps heat in the troposphere through a threefold process as follows: short-wave radiation emitted by the Sun is absorbed by the Earth, the Earth emits a portion of this energy in the form of long-wave radiation, and GHGs in the upper atmosphere absorb this long-wave radiation and emit it into space and toward the Earth. The greenhouse effect is a natural process that contributes to regulating the Earth’s temperature and creates a pleasant, livable environment on the Earth. Human activities that emit additional GHGs to the atmosphere increase the amount of infrared radiation that gets absorbed before escaping into space, thus enhancing the greenhouse effect and causing the Earth’s surface temperature to rise.

The scientific record of the Earth’s climate shows that the climate system varies naturally over a wide range of time scales and that, in general, climate changes prior to the Industrial Revolution in the 1700s can be explained by natural causes, such as changes in solar energy, volcanic eruptions, and natural changes in GHG concentrations. Recent climate changes, in particular the warming observed over the past century, however, cannot be explained by natural causes alone. Rather, it is extremely likely that human activities have been the dominant cause of that warming since the mid-twentieth century and is the most significant driver of observed climate change (IPCC 2013; EPA 2017a). Human influence on the climate system is evident from the increasing GHG concentrations in the atmosphere, positive radiative forcing, observed warming, and improved understanding of the climate system (IPCC 2013). The atmospheric concentrations of GHGs have increased to levels unprecedented in the last 800,000 years, primarily from fossil fuel emissions and secondarily from emissions associated with land use changes (IPCC 2013). Continued emissions of GHGs will cause further warming and changes in all components of the climate system, which is discussed further in Section 3.7.1.5, Potential Effects of Climate Change.

### 3.7.1.2 Greenhouse Gases

A GHG is any gas that absorbs infrared radiation in the atmosphere; in other words, GHGs trap heat in the atmosphere. As defined in California Health and Safety Code section 38505(g) for purposes of administering many of the state's primary GHG emissions reduction programs, GHGs include carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), nitrous oxide (N<sub>2</sub>O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), sulfur hexafluoride (SF<sub>6</sub>), and nitrogen trifluoride (NF<sub>3</sub>) (see also 14 CCR 15364.5).<sup>1</sup> Some GHGs, such as CO<sub>2</sub>, CH<sub>4</sub>, and N<sub>2</sub>O, are emitted into the atmosphere through natural processes and human activities. Of these gases, CO<sub>2</sub> and CH<sub>4</sub> are emitted in the greatest quantities from human activities. Manufactured GHGs, which have a much greater heat-absorption potential than CO<sub>2</sub>, include fluorinated gases, such as HFCs, PFCs, and SF<sub>6</sub>, which are associated with certain industrial products and processes. The following paragraphs provide a summary of the most common GHGs and their sources.<sup>2</sup>

**Carbon Dioxide.** CO<sub>2</sub> is a naturally occurring gas and a by-product of human activities and is the principal anthropogenic GHG that affects the Earth's radiative balance. Natural sources of CO<sub>2</sub> include respiration of bacteria, plants, animals, and fungus; evaporation from oceans; volcanic out-gassing; and decomposition of dead organic matter. Human activities that generate CO<sub>2</sub> are from the combustion of fuels such as coal, oil, natural gas, and wood and changes in land use.

**Methane.** CH<sub>4</sub> is produced through both natural and human activities. CH<sub>4</sub> is a flammable gas and is the main component of natural gas. Methane is produced through anaerobic (without oxygen) decomposition of waste in landfills, flooded rice fields, animal digestion, decomposition of animal wastes, production and distribution of natural gas and petroleum, coal production, and incomplete fossil fuel combustion.

**Nitrous Oxide.** N<sub>2</sub>O is produced through natural and human activities, mainly through agricultural activities and natural biological processes, although fuel burning and other processes also create N<sub>2</sub>O. Sources of N<sub>2</sub>O include soil cultivation practices (microbial processes in soil and water), especially the use of commercial and organic fertilizers, manure management, industrial processes (such as in nitric acid production, nylon production, and fossil-fuel-fired power plants), vehicle emissions, and using N<sub>2</sub>O as a propellant (such as in rockets, racecars, and aerosol sprays).

**Fluorinated Gases.** Fluorinated gases (also referred to as F-gases) are synthetic powerful GHGs emitted from many industrial processes. Fluorinated gases are commonly used as substitutes for stratospheric ozone-depleting substances (e.g., CFCs, HCFCs, and halons). The most prevalent fluorinated gases include the following:

- **Hydrofluorocarbons:** HFCs are compounds containing only hydrogen, fluorine, and carbon atoms. HFCs are synthetic chemicals used as alternatives to ozone-depleting substances in serving many industrial, commercial, and personal needs. HFCs are emitted as by-products of industrial processes and are used in manufacturing.
- **Perfluorocarbons:** PFCs are a group of human-made chemicals composed of carbon and fluorine only. These chemicals were introduced as alternatives, with HFCs, to the ozone depleting substances. The two main sources of PFCs are primary aluminum production and semiconductor manufacturing. Since PFCs have stable molecular structures and do not break down through the chemical processes in the lower atmosphere, these chemicals have long lifetimes, ranging between 10,000 and 50,000 years.

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<sup>1</sup> Climate forcing substances include GHGs and other substances such as black carbon and aerosols. This discussion focuses on the seven GHGs identified in the California Health and Safety Code Section 38505, because impacts associated with other climate forcing substances are not evaluated herein.

<sup>2</sup> The descriptions of GHGs are summarized from the Intergovernmental Panel on Climate Change's Second Assessment Report and Fourth Assessment Report (IPCC 1995, 2007), CARB's Glossary of Terms Used in GHG Inventories (CARB 2018a), and EPA's Glossary of Climate Change Terms (EPA 2016).

- **Sulfur Hexafluoride:** SF<sub>6</sub> is a colorless gas soluble in alcohol and ether and slightly soluble in water. SF<sub>6</sub> is used for insulation in electric power transmission and distribution equipment, semiconductor manufacturing, the magnesium industry, and as a tracer gas for leak detection.
- **Nitrogen Trifluoride:** NF<sub>3</sub> is used in the manufacture of a variety of electronics, including semiconductors and flat panel displays.

**Chlorofluorocarbons.** CFCs are synthetic chemicals that have been used as cleaning solvents, refrigerants, and aerosol propellants. CFCs are chemically unreactive in the lower atmosphere (troposphere) and the production of CFCs was prohibited in 1987 due to the chemical destruction of stratospheric O<sub>3</sub>.

**Hydrochlorofluorocarbons.** HCFCs are a large group of compounds, whose structure is very close to that of CFCs—containing hydrogen, fluorine, chlorine, and carbon atoms—but including one or more hydrogen atoms. Like HFCs, HCFCs are used in refrigerants and propellants. HCFCs were also used in place of CFCs for some applications; however, their use in general is being phased out.

**Black Carbon.** Black carbon is a component of fine particulate matter, which has been identified as a leading environmental risk factor for premature death. It is produced from the incomplete combustion of fossil fuels and biomass burning, particularly from older diesel engines and forest fires. Black carbon warms the atmosphere by absorbing solar radiation, influences cloud formation, and darkens the surface of snow and ice, which accelerates heat absorption and melting. Black carbon is a short-lived species that varies spatially, which makes it difficult to quantify the global warming potential. Diesel particulate matter emissions are a major source of black carbon and are TACs that have been regulated and controlled in California for several decades to protect public health. In relation to declining diesel particulate matter from the California Air Resources Board's (CARB's) regulations pertaining to diesel engines, diesel fuels, and burning activities, CARB estimates that annual black carbon emissions in California have reduced by 70% between 1990 and 2010, with 95% control expected by 2020 (CARB 2014).

**Water Vapor.** The primary source of water vapor is evaporation from the ocean, with additional vapor generated by sublimation (change from solid to gas) from ice and snow, evaporation from other water bodies, and transpiration from plant leaves. Water vapor is the most important, abundant, and variable GHG in the atmosphere and maintains a climate necessary for life.

**Ozone.** Tropospheric O<sub>3</sub>, which is created by photochemical reactions involving gases from both natural sources and human activities, acts as a GHG. Stratospheric O<sub>3</sub>, which is created by the interaction between solar ultraviolet radiation and molecular oxygen (O<sub>2</sub>), plays a decisive role in the stratospheric radiative balance. Depletion of stratospheric O<sub>3</sub>, due to chemical reactions that may be enhanced by climate change, results in an increased ground-level flux of ultraviolet-B radiation.

**Aerosols.** Aerosols are suspensions of particulate matter in a gas emitted into the air through burning biomass (plant material) and fossil fuels. Aerosols can warm the atmosphere by absorbing and emitting heat and can cool the atmosphere by reflecting light.

### 3.7.1.3 Global Warming Potential

Gases in the atmosphere can contribute to climate change both directly and indirectly. Direct effects occur when the gas itself absorbs radiation. Indirect radiative forcing occurs when chemical transformations of the substance produce other GHGs, when a gas influences the atmospheric lifetimes of other gases, and/or when a gas affects atmospheric processes that alter the radiative balance of the Earth (e.g., affect cloud formation or albedo) (EPA

2016a). The Intergovernmental Panel on Climate Change (IPCC) developed the global warming potential (GWP) concept to compare the ability of each GHG to trap heat in the atmosphere relative to another gas. The GWP of a GHG is defined as the ratio of the time-integrated radiative forcing from the instantaneous release of 1 kilogram of a trace substance relative to that of 1 kilogram of a reference gas (IPCC 2014). The reference gas used is CO<sub>2</sub>; therefore, GWP-weighted emissions are measured in metric tons of CO<sub>2</sub> equivalent (MT CO<sub>2e</sub>).

The current version of the California Emissions Estimator Model (CalEEMod) (Version 2016.3.2; CAPCOA 2017) assumes that the GWP for CH<sub>4</sub> is 25 (so emissions of 1 MT of CH<sub>4</sub> are equivalent to emissions of 25 MT of CO<sub>2</sub>), and the GWP for N<sub>2</sub>O is 298, based on the IPCC’s Fourth Assessment Report (IPCC 2007). The GWP values identified in CalEEMod were applied to the Northside Specific Plan.

### 3.7.1.4 Sources of Greenhouse Gas Emissions

Per the U.S. Environmental Protection Agency’s (EPA’s) Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990–2017, total U.S. GHG emissions were approximately 6,457 MMT CO<sub>2e</sub> in 2017 (EPA 2019). The largest source of CO<sub>2</sub>, and of overall GHG emissions, was fossil-fuel combustion, which accounted for approximately 93.2% of CO<sub>2</sub> emissions in 2017 (4,912.0 MMT CO<sub>2e</sub>). Relative to the 1990 emissions level, gross U.S. GHG emissions in 2017 were 1.3% higher; however, the gross emissions are down from a high of 15.7% above the 1990 level that occurred in 2007. GHG emissions decreased from 2016 to 2017 by 0.5% (35.5 MMT CO<sub>2e</sub>) and, overall, net emissions in 2017 were 13% below 2005 levels (EPA 2019).

According to California’s 2000–2017 GHG emissions inventory (2019 edition), California emitted 24.1 MMT CO<sub>2e</sub> in 2017, including emissions resulting from out-of-state electrical generation (CARB 2018b). The sources of GHG emissions in California include transportation, industrial uses, electric power production from both in-state and out-of-state sources, commercial and residential uses, agriculture, high global-warming potential substances, and recycling and waste. The California GHG emission source categories (as defined in CARB’s 2008 Scoping Plan) and their relative contributions in 2017 are presented in Table 3.7-1.

**Table 3.7-1. Greenhouse Gas Emissions Sources in California**

Source Category	Annual GHG Emissions (MMT CO <sub>2e</sub> )	Percent of Total <sup>a</sup>
Transportation	169.9	40%
Industrial	89.4	21%
Electric power <sup>b</sup>	62.4	15%
Commercial and residential	41.1	10%
Agriculture	32.4	8%
High global-warming potential substances	20.0	5%
Recycling and waste	8.9	2%
<b>Total</b>	<b>424.1</b>	<b>100%</b>

Source: CARB 2018b.

Notes: GHG = greenhouse gas; MMT CO<sub>2e</sub> = million metric tons of carbon dioxide equivalent. Emissions reflect the 2017 California GHG inventory.

<sup>a</sup> Percentage of total has been rounded, and total may not sum due to rounding.

<sup>b</sup> Includes emissions associated with imported electricity, which account for 23.9 MMT CO<sub>2e</sub> annually.

Between 2000 and 2017, per capita GHG emissions in California have continued to drop from a peak in 2001 of 14.1 MT per person to 10.7 MT per person in 2017, representing a 24% decrease. In addition, total GHG emissions in 2017 were approximately 5 MMT CO<sub>2e</sub> less than 2016 emissions. The declining trend in GHG emissions, coupled

with programs that will continue to provide additional GHG reductions going forward, demonstrates that California will continue to reduce emissions below the statewide 2020 reduction target of 431 MT CO<sub>2e</sub>, which is discussed below in Section 3.7.2 (CARB 2018b).

As part of the City of Riverside’s Climate Economic Prosperity Action Plan and Climate Action Plan (CAP), adopted in 2016, and qualified to 2035, the City of Riverside developed a community wide baseline GHG emissions inventory for the year 2007. As shown in Table 3.7-2 below, the City of Riverside’s 2007 total emissions were 3.0 MMT of CO<sub>2e</sub> with the majority coming from transportation (43%) and Commercial/Industrial use (34%); the remaining comes from residential and solid waste sectors.

**Table 3.7-2. City of Riverside Community Wide GHG Baseline Inventory**

Sector	2007 MT CO <sub>2e</sub>	Percent of Total <sup>a</sup>
Residential Energy Use	626,136	20.7%
Commercial/Industrial Energy Use	1,028,804	34.0%
Transportation	1,301,764	43.0%
Solid Waste Generation	67,342	2.2%
<b>Total</b>	<b>3,024,066</b>	<b>100%</b>

**Source:** City of Riverside 2016

**Notes:** GHG = greenhouse gas; MT CO<sub>2e</sub> = metric tons of carbon dioxide equivalent.

<sup>a</sup> Percentage of total has been rounded, and total may not sum due to rounding.

The County of Riverside CAP) update 2019 and qualified to 2030, provides community wide GHG emissions inventory for the year 2017. As shown in Table 3.7-3 below, the County of Riverside’s 2017 total emissions were 4.9 MMT of CO<sub>2e</sub> with the majority coming from transportation (36%), agriculture (34%) and energy (24%).

**Table 3.7-3. County of Riverside Community Wide GHG Inventory**

Emission Category	2017 MT CO <sub>2e</sub>	Percent of Total <sup>a</sup>
On-Road Transportation	1,766,784	36
Agriculture	1,670,954	34
Energy (Electricity and Natural Gas)	1,188,138	24
Solid Waste	204,365	4
Water and Wastewater	44,606	0.9
Aviation	26,786	0.6
Off-Road	3,883	0.08
<b>Total</b>	<b>4,905,518</b>	<b>100%</b>

**Source:** City of Riverside 2016

**Notes:** GHG = greenhouse gas; MT CO<sub>2e</sub> = metric tons of carbon dioxide equivalent.

<sup>a</sup> Percentage of total has been rounded, and total may not sum due to rounding

The City of Colton CAP, adopted in 2015, provides a local GHG emission inventory equal to the 2012 CARB State level emissions equal to 458,680,000 MT CO<sub>2e</sub>.

### 3.7.1.5 Potential Effects of Climate Change

Globally, climate change has the potential to affect numerous environmental resources through uncertain impacts related to future air temperatures and precipitation patterns. The 2014 IPCC Synthesis Report (IPCC 2014) indicated that warming of the climate system is unequivocal, and since the 1950s, many of the observed changes are unprecedented over decades to millennia. Signs that global climate change has occurred include warming of the atmosphere and ocean, diminished amounts of snow and ice, rising sea levels, and ocean acidification (IPCC 2014).

In California, climate change impacts have the potential to affect sea-level rise, agriculture, snowpack and water supply, forestry, wildfire risk, public health, frequency of severe weather events, and electricity demand and supply. The primary effect of global climate change has been a rise in average global tropospheric temperature. Reflecting the long-term warming trend since pre-industrial times, observed global mean surface temperature for the decade 2006–2015 was 0.87 °C (likely between 0.75 °C and 0.99 °C) higher than the average over the 1850–1900 period (IPCC 2018). Scientific modeling predicts that continued emissions of GHGs at or above current rates would induce more extreme climate changes during the twenty-first century than were observed during the twentieth century. Human activities are estimated to have caused approximately 1.0 °C (1.8 degrees Fahrenheit (°F)) of global warming above pre-industrial levels, with a likely range of 0.8 °C to 1.2 °C (1.4 °F to 2.2 °F) (IPCC 2018). Global warming is likely to reach 1.5 °C (2.7 °F) between 2030 and 2052 if it continues to increase at the current rate (IPCC 2018).

Although climate change is driven by global atmospheric conditions, climate change impacts are felt locally. A scientific consensus confirms that climate change is already affecting California. The Office of Environmental Health Hazard Assessment identified various indicators of climate change in California, which are scientifically-based measurements that track trends in various aspects of climate change. Many indicators reveal discernable evidence that climate change is occurring in California and is having significant, measurable impacts in the state. Changes in the state's climate have been observed including an increase in annual average air temperature with record warmth from 2012 to 2016, more frequent extreme heat events, more extreme drought, a decline in winter chill, an increase in cooling degree days and a decrease in heating degree days, and an increase in variability of statewide precipitation (OEHHA 2018).

Warming temperatures and changing precipitation patterns have altered California's physical systems – the ocean, lakes, rivers and snowpack – upon which the state depends. Winter snowpack and spring snowmelt runoff from the Sierra Nevada and southern Cascade Mountains provide approximately one-third of the state's annual water supply. Impacts of climate on physical systems have been observed such as high variability of snow-water content (i.e., amount of water stored in snowpack), decrease in snowmelt runoff, glacier change (loss in area), rise in sea levels, increase in average lake water temperature and coastal ocean temperature, and a decrease in dissolved oxygen in coastal waters (OEHHA 2018).

Impacts of climate change on biological systems, including humans, wildlife, and vegetation, have also been observed including climate change impacts on terrestrial, marine, and freshwater ecosystems. As with global observations, species responses include those consistent with warming: elevational or latitudinal shifts in range, changes in the timing of key plant and animal life cycle events, and changes in the abundance of species and in community composition. Humans are better able to adapt to a changing climate than plants and animals in natural ecosystems. Nevertheless, climate change poses a threat to public health as warming temperatures and changes in precipitation can affect vector-borne pathogen transmission and disease patterns in California as well as the variability of heat-related deaths and illnesses. In addition, since 1950, the area burned by wildfires each year has been increasing.

The California Natural Resources Agency (CNRA) has released four California Climate Change Assessments (2006, 2009, 2012, and 2018), which have addressed the following: acceleration of warming across the state, more intense and frequent heat waves, greater riverine flows, accelerating sea level rise, more intense and frequent drought, more severe and frequent wildfires, more severe storms and extreme weather events, shrinking snowpack and less overall precipitation, and ocean acidification, hypoxia, and warming. To address local and regional governments need for information to support action in their communities, the Fourth Assessment (CNRA 2018a) includes reports for nine regions of the state, including the Los Angeles Region, which includes Ventura, LA, Orange Counties and adjacent urbanized portions of San Bernardino and Riverside Counties where the Northside Specific Plan is located. Key projected climate changes for the Los Angeles Region include the following (CNRA 2018a):

- Continued future warming over the Los Angeles region. Across the region, average maximum temperatures are projected to increase around 4°F to 5°F by the mid-century, and 5°F to 8°F by the late-century.
- Extreme temperatures are also expected to increase. The hottest day of the year may be up to 10°F warmer for many locations across the Los Angeles region by the late-century under certain model scenarios. The number of extremely hot days is also expected to increase across the region.
- Despite small changes in average precipitation, dry and wet extremes are both expected to increase. By the late 21st century, the wettest day of the year is expected to increase across most of the Los Angeles region, with some locations experiencing 25% to 30% increases under certain model scenarios. Increased frequency and severity of atmospheric river events are also projected to occur for this region.
- Sea levels are projected to continue to rise in the future, but there is a large range based on emissions scenario and uncertainty in feedbacks in the climate system. Roughly 1 foot to 2 feet of sea level rise is projected by the mid-century, and the most extreme projections lead to 8 feet to 10 feet of sea level rise by the end of the century.
- Projections indicate that wildfire may increase over southern California, but there remains uncertainty in quantifying future changes of burned area over the Los Angeles region.

### 3.7.2 Relevant Plans, Policies, and Ordinances

#### Federal

**Massachusetts v. EPA.** In *Massachusetts v. EPA* (April 2007), the U.S. Supreme Court directed the EPA administrator to determine whether GHG emissions from new motor vehicles cause or contribute to air pollution that may reasonably be anticipated to endanger public health or welfare, or whether the science is too uncertain to make a reasoned decision. In December 2009, the administrator signed a final rule with the following two distinct findings regarding GHGs under Section 202(a) of the federal Clean Air Act:

- The Administrator found that elevated concentrations of GHGs—CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O, HFCs, PFCs, and SF<sub>6</sub>—in the atmosphere threaten the public health and welfare of current and future generations. This is the “endangerment finding.”
- The Administrator further found the combined emissions of GHGs—CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O, and HFCs—from new motor vehicles and new motor vehicle engines contribute to the GHG air pollution that endangers public health and welfare. This is the “cause or contribute finding.”

These two findings were necessary to establish the foundation for regulation of GHGs from new motor vehicles as air pollutants under the Clean Air Act.

**Energy Independence and Security Act of 2007.** The Energy Independence and Security Act of 2007 (December 2007), among other key measures, would do the following, which would aid in the reduction of national GHG emissions (EPA 2007):

- Increase the supply of alternative fuel sources by setting a mandatory Renewable Fuel Standard requiring fuel producers to use at least 36 billion gallons of biofuel in 2022.
- Set a target of 35 miles per gallon for the combined fleet of cars and light trucks by model year 2020, and directs National Highway Traffic Safety Administration (NHTSA) to establish a fuel economy program for medium- and heavy-duty trucks and create a separate fuel economy standard for work trucks.
- Prescribe or revise standards affecting regional efficiency for heating and cooling products and procedures for new or amended standards, energy conservation, energy-efficiency labeling for consumer electronic products, residential boiler efficiency, electric motor efficiency, and home appliances.

**Federal Vehicle Standards.** In response to the U.S. Supreme Court ruling previously discussed, the Bush Administration issued Executive Order (EO) 13432 in 2007 directing the EPA, the Department of Transportation, and the Department of Energy to establish regulations that reduce GHG emissions from motor vehicles, non-road vehicles, and non-road engines by 2008. In 2009, the NHTSA issued a final rule regulating fuel efficiency and GHG emissions from cars and light-duty trucks for model year 2011, and in 2010, the EPA and NHTSA issued a final rule regulating cars and light-duty trucks for model years 2012–2016 (75 FR 25324–25728).

In 2010, President Barack Obama issued a memorandum directing the Department of Transportation, Department of Energy, EPA, and NHTSA to establish additional standards regarding fuel efficiency and GHG reduction, clean fuels, and advanced vehicle infrastructure. In response to this directive, EPA and NHTSA proposed stringent, coordinated federal GHG and fuel economy standards for model years 2017–2025 light-duty vehicles. The proposed standards projected to achieve 163 grams per mile of CO<sub>2</sub> in model year 2025, on an average industry fleet-wide basis, which is equivalent to 54.5 miles per gallon if this level were achieved solely through fuel efficiency. The final rule was adopted in 2012 for model years 2017–2021 (77 FR 62624–63200). On January 12, 2017, the EPA finalized its decision to maintain the current GHG emissions standards for model years 2022–2025 cars and light trucks (EPA 2017b).

In addition to the regulations applicable to cars and light-duty trucks described above, in 2011, the EPA and NHTSA announced fuel economy and GHG standards for medium- and heavy-duty trucks for model years 2014–2018 (76 FR 57106–57513). The standards for CO<sub>2</sub> emissions and fuel consumption are tailored to three main vehicle categories: combination tractors, heavy-duty pickup trucks and vans, and vocational vehicles. According to the EPA, this regulatory program will reduce GHG emissions and fuel consumption for the affected vehicles by 6%–23% over the 2010 baselines.

In August 2016, the EPA and NHTSA announced the adoption of the phase two program related to the fuel economy and GHG standards for medium- and heavy-duty trucks. The phase two program will apply to vehicles with model year 2018 through 2027 for certain trailers, and model years 2021 through 2027 for semi-trucks, large pickup trucks, vans, and all types and sizes of buses and work trucks. The final standards are expected to lower CO<sub>2</sub> emissions by approximately 1.1 billion MT and reduce oil consumption by up to 2 billion barrels over the lifetime of the vehicles sold under the program (EPA and NHTSA 2016).

In August 2018, EPA and NHTSA proposed to amend certain fuel economy and GHG standards for passenger cars and light trucks and establish new standards for model years 2021 through 2026. Compared to maintaining the post-2020 standards now in place, the 2018 proposal would increase U.S. fuel consumption by about half a million barrels per day (2%–3% of total daily consumption, according to the Energy Information Administration) and would impact the global climate by 3/1000th of one degree Celsius by 2100 (EPA and NHTSA 2018). California and other

states have stated their intent to challenge federal actions that would delay or eliminate GHG reduction measures and have committed to cooperating with other countries to implement global climate change initiatives. Thus, the timing and consequences of the 2018 federal proposal are speculative at this time.

**Clean Power Plan and New Source Performance Standards for Electric Generating Units.** On October 23, 2015, EPA published a final rule (effective December 22, 2015) establishing the Carbon Pollution Emission Guidelines for Existing Stationary Sources: Electric Utility Generating Units (80 FR 64510–64660), also known as the Clean Power Plan. These guidelines prescribe how states must develop plans to reduce GHG emissions from existing fossil-fuel-fired electric generating units. The guidelines establish CO<sub>2</sub> emission performance rates representing the best system of emission reduction for two subcategories of existing fossil-fuel-fired electric generating units: (1) fossil-fuel-fired electric utility steam-generating units, and (2) stationary combustion turbines. Concurrently, the EPA published a final rule (effective October 23, 2015) establishing Standards of Performance for Greenhouse Gas Emissions from New, Modified, and Reconstructed Stationary Sources: Electric Utility Generating Units (80 FR 64661–65120). The rule prescribes CO<sub>2</sub> emission standards for newly constructed, modified, and reconstructed affected fossil-fuel-fired electric utility generating units. The U.S. Supreme Court stayed implementation of the Clean Power Plan pending resolution of several lawsuits.

### State

The statewide GHG emissions regulatory framework is summarized below by category: state climate change targets, building energy, renewable energy and energy procurement, mobile sources, solid waste, water, and other state regulations and goals. The following text describes EOs, legislation, regulations, and other plans and policies that would directly or indirectly reduce GHG emissions and/or address climate change issues.

#### ***State Climate Change Targets***

The state has taken a number of actions to address climate change. These include EOs, legislation, and CARB plans and requirements. These are summarized below.

**EO S-3-05.** EO S-3-05 (June 2005) established California’s GHG emissions reduction targets and laid out responsibilities among the state agencies for implementing the EO and for reporting on progress toward the targets. This EO established the following targets:

- By 2010, reduce GHG emissions to 2000 levels
- By 2020, reduce GHG emissions to 1990 levels
- By 2050, reduce GHG emissions to 80% below 1990 levels

EO S-3-05 also directed the California Environmental Protection Agency to report biannually on progress made toward meeting the GHG targets and the impacts to California due to global warming, including impacts to water supply, public health, agriculture, the coastline, and forestry. The Climate Action Team was formed, which subsequently issued reports from 2006 to 2010.

**AB 32.** In furtherance of the goals established in EO S-3-05, the Legislature enacted Assembly Bill (AB) 32 (Núñez and Pavley). The bill is referred to as the California Global Warming Solutions Act of 2006 (September 27, 2006). AB 32 provided initial direction on creating a comprehensive multiyear program to limit California’s GHG emissions at 1990 levels by 2020 and initiate the transformations required to achieve the state’s long-range climate objectives.

**SB 32 and AB 197.** Senate Bill (SB) 32 and AB 197 (enacted in 2016) are companion bills. SB 32 codified the 2030 emissions reduction goal of EO B-30-15 by requiring CARB to ensure that statewide GHG emissions are reduced to 40% below 1990 levels by 2030. AB 197 established the Joint Legislative Committee on Climate Change Policies, consisting of at least three members of the Senate and three members of the Assembly, in order to provide ongoing oversight over implementation of the state’s climate policies. AB 197 also added two members of the Legislature to the Board as nonvoting members; requires CARB to make available and update (at least annually via its website) emissions data for GHGs, criteria air pollutants, and TACs from reporting facilities; and, requires CARB to identify specific information for GHG emissions reduction measures when updating the scoping plan.

**CARB’s 2007 Statewide Limit.** In 2007, in accordance with California Health and Safety Code, Section 38550, CARB approved a statewide limit on the GHG emissions level for year 2020 consistent with the determined 1990 baseline (427 MMT CO<sub>2e</sub>).

**CARB’s Climate Change Scoping Plan.** One specific requirement of AB 32 is for CARB to prepare a “scoping plan” for achieving the maximum technologically feasible and cost-effective GHG emission reductions by 2020 (Health and Safety Code, Section 38561(a)), and to update the plan at least once every 5 years. In 2008, CARB approved the first scoping plan. The Climate Change Scoping Plan: A Framework for Change (Scoping Plan) included a mix of recommended strategies that combined direct regulations, market-based approaches, voluntary measures, policies, and other emission reduction programs calculated to meet the 2020 statewide GHG emission limit and initiate the transformations needed to achieve the state’s long-range climate objectives. The key elements of the Scoping Plan include the following (CARB 2008):

1. Expanding and strengthening existing energy efficiency programs as well as building and appliance standards
2. Achieving a statewide renewable energy mix of 33%
3. Developing a California cap-and-trade program that links with other Western Climate Initiative partner programs to create a regional market system and caps sources contributing 85% of California’s GHG emissions
4. Establishing targets for transportation-related GHG emissions for regions throughout California, and pursuing policies and incentives to achieve those targets
5. Adopting and implementing measures pursuant to existing state laws and policies, including California’s clean car standards, goods movement measures, and the Low Carbon Fuel Standard (LCFS 17 CCR, Section 95480 et seq.)
6. Creating targeted fees, including a public goods charge on water use, fees on high GWP gases, and a fee to fund the administrative costs of the State of California’s long-term commitment to AB 32 implementation

The Scoping Plan also identified local governments as essential partners in achieving California’s goals to reduce GHG emissions because they have broad influence and, in some cases, exclusive authority over activities that contribute to significant direct and indirect GHG emissions through their planning and permitting processes, local ordinances, outreach and education efforts, and municipal operations. Specifically, the Scoping Plan encouraged local governments to adopt a reduction goal for municipal operations and for community emissions to reduce GHGs by approximately 15% from then levels (2008) by 2020. Many local governments developed community-scale local GHG reduction plans based on this Scoping Plan recommendation.

In 2014, CARB approved the first update to the Scoping Plan. The First Update to the Climate Change Scoping Plan: Building on the Framework (First Update) defined the state’s GHG emission reduction priorities for the next 5 years and laid the groundwork to start the transition to the post-2020 goals set forth in EOs S-3-05 and B-16-2012. The

First Update concluded that California is on track to meet the 2020 target but recommended a 2030 mid-term GHG reduction target be established to ensure a continuum of action to reduce emissions. The First Update recommended a mix of technologies in key economic sectors to reduce emissions through 2050 including: energy demand reduction through efficiency and activity changes; large-scale electrification of on-road vehicles, buildings and industrial machinery; decarbonizing electricity and fuel supplies; and, the rapid market penetration of efficient and clean energy technologies. As part of the First Update, CARB recalculated the state’s 1990 emissions level, using more recent global warming potentials identified by the IPCC, from 427 MMT CO<sub>2e</sub> to 431 MMT CO<sub>2e</sub>.

In 2015, as directed by EO B-30-15, CARB began working on an update to the Scoping Plan to incorporate the 2030 target of 40% below 1990 levels by 2030 to keep California on its trajectory toward meeting or exceeding the long-term goal of reducing GHG emissions to 80% below 1990 levels by 2050 as set forth in S-3-05. The Governor called on California to pursue a new and ambitious set of strategies, in line with the five climate change pillars from his inaugural address, to reduce GHG emissions and prepare for the unavoidable impacts of climate change. In the summer of 2016, the Legislature affirmed the importance of addressing climate change through passage of SB 32 (Pavley, Chapter 249, Statutes of 2016).

In December 2017, CARB adopted California’s 2017 Climate Change Scoping Plan (2017 Scoping Plan) for public review and comment (CARB 2017). The 2017 Scoping Plan builds on the successful framework established in the initial Scoping Plan and First Update, while identifying new, technologically feasible and cost-effective strategies that will serve as the framework to achieve the 2030 GHG target as established by SB 32 and define the state’s climate change priorities to 2030 and beyond. The strategies’ known commitments include implementing renewable energy and energy efficiency (including the mandates of SB 350), increasing stringency of the LCFS, implementing measures identified in the Mobile Source and Freight Strategies, implementing measures identified in the proposed Short-Lived Climate Pollutant Plan, and increasing stringency of SB 375 targets. To fill the gap in additional reductions needed to achieve the 2030 target, it recommends continuing the Cap-and-Trade Program and a measure to reduce GHGs from refineries by 20%.

For local governments, the 2030 Scoping Plan replaced the initial Scoping Plan’s 15% reduction goal with a recommendation to aim for a community-wide goal of no more than 6 MT CO<sub>2e</sub> per capita by 2030 and no more than 2 MT CO<sub>2e</sub> per capita by 2050, which are consistent with the state’s long-term goals. These goals are also consistent with the Under 2 MOU (Under 2 2016) and the Paris Agreement, which are developed around the scientifically based levels necessary to limit global warming below 2°C. The 2030 Scoping Plan recognized the benefits of local government GHG planning (e.g., through CAPs) and provide more information regarding tools CARB is working on to support those efforts. It also recognizes the California Environmental Quality Act (CEQA) streamlining provisions for project-level review where there is a legally adequate CAP.<sup>3</sup> The Second Update was approved by CARB’s Governing Board on December 14, 2017.

The Scoping Plan recommends strategies for implementation at the statewide level to meet the goals of AB 32, SB 32, and the EOs and establishes an overall framework for the measures that will be adopted to reduce California’s GHG emissions. A project is considered consistent with the statutes and EOs if it meets the general policies in reducing GHG emissions to facilitate the achievement of the state’s goals and does not impede attainment of those goals. As discussed in several cases, a given project need not be in perfect conformity with each and every planning policy or goals to be consistent. A project would be consistent, if it will further the objectives and not obstruct their attainment.

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<sup>3</sup> *Sierra Club v. County of Napa* (2004) 121 Cal.App.4th 1490; *San Francisco Tomorrow et al. v. City and County of San Francisco* (2015) 229 Cal.App.4th 498; *San Franciscans Upholding the Downtown Specific Plan v. City and County of San Francisco* (2002) 102 Cal.App.4th 656; *Sequoyah Hills Homeowners Assn. V. City of Oakland* (1993) 23 Cal.App.4th 704, 719.

**CARB's Regulations for the Mandatory Reporting of Greenhouse Gas Emissions.** CARB's Regulation for the Mandatory Reporting of Greenhouse Gas Emissions (17 CCR 95100–95157) incorporated by reference certain requirements that EPA promulgated in its Final Rule on Mandatory Reporting of Greenhouse Gases (Title 40, CFR, Part 98). Specifically, Section 95100(c) of the Mandatory Reporting Regulation incorporated those requirements that EPA promulgated in the Federal Register on October 30, 2009; July 12, 2010; September 22, 2010; October 28, 2010; November 30, 2010; December 17, 2010; and April 25, 2011. In general, entities subject to the Mandatory Reporting Regulation that emit over 10,000 MT CO<sub>2</sub>e per year are required to report annual GHGs through the California Electronic GHG Reporting Tool. Certain sectors, such as refineries and cement plants, are required to report regardless of emission levels. Entities that emit more than the 25,000 MT CO<sub>2</sub>e per year threshold are required to have their GHG emission report verified by a CARB-accredited third-party verified.

**EO B-18-12.** EO B-18-12 (April 2012) directed state agencies, departments, and other entities under the governor's executive authority to take action to reduce entity-wide GHG emissions by at least 10% by 2015 and 20% by 2020, as measured against a 2010 baseline. EO B-18-12 also established goals for existing state buildings for reducing grid-based energy purchases and water use.

**EO B-30-15.** EO B-30-15 (April 2015) identified an interim GHG reduction target in support of targets previously identified under S-3-05 and AB 32. EO B-30-15 set an interim target goal of reducing GHG emissions to 40% below 1990 levels by 2030 to keep California on its trajectory toward meeting or exceeding the long-term goal of reducing GHG emissions to 80% below 1990 levels by 2050 as set forth in S-3-05. To facilitate achieving this goal, EO B-30-15 called for CARB to update the Scoping Plan to express the 2030 target in terms of MMT CO<sub>2</sub>e. The EO also called for state agencies to continue to develop and implement GHG emission reduction programs in support of the reduction targets.

**SB 605 and SB 1383.** **SB 605** (2014) requires CARB to complete a comprehensive strategy to reduce emissions of short-lived climate pollutants (SLCPs) in the state; and **SB 1383** (2016) requires CARB to approve and implement that strategy by January 1, 2018. SB 1383 also establishes specific targets for the reduction of SLCPs (40% below 2013 levels by 2030 for methane and HFCs, and 50% below 2013 levels by 2030 for anthropogenic black carbon), and provides direction for reductions from dairy and livestock operations and landfills. Accordingly, and as mentioned above, CARB adopted its Short-Lived Climate Pollutant Reduction Strategy (SLCP Reduction Strategy) in March 2017. The SLCP Reduction Strategy establishes a framework for the statewide reduction of emissions of black carbon, methane, and fluorinated gases.

**EO B-55-18.** EO B-55-18 (September 2018) establishes a statewide policy for the state to achieve carbon neutrality no later than 2045, and achieve and maintain net negative emissions thereafter. The goal is an addition to the existing statewide targets of reducing the state's GHG emissions. CARB will work with relevant state agencies to ensure that future Scoping Plans identify and recommend measures to achieve the carbon neutrality goal.

### ***Building Energy***

**Title 24, Part 6.** Title 24 of the California Code of Regulations was established in 1978 and serves to enhance and regulate California's building standards. While not initially promulgated to reduce GHG emissions, Part 6 of Title 24 specifically established Building Energy Efficiency Standards that are designed to ensure new and existing buildings in California achieve energy efficiency and preserve outdoor and indoor environmental quality. These energy efficiency standards are reviewed every few years by the Building Standards Commission and the California Energy Commission (CEC) (and revised if necessary) (California Public Resources Code, Section 25402(b)(1)). The regulations receive input from members of industry, as well as the public, with the goal of "reducing of wasteful,

uneconomic, inefficient, or unnecessary consumption of energy” (California Public Resources Code, Section 25402). These regulations are carefully scrutinized and analyzed for technological and economic feasibility (California Public Resources Code, Section 25402(d)) and cost effectiveness (California Public Resources Code, Sections 25402(b)(2) and (b)(3)). As a result, these standards save energy, increase electricity supply reliability, increase indoor comfort, avoid the need to construct new power plants, and help preserve the environment.

The current Title 24 standards are the 2016 Title 24 Building Energy Efficiency Standards, which became effective January 1, 2017. The 2019 Title 24 Building Energy Efficiency Standards, which will be effective January 1, 2020, will further reduce energy used and associated GHG emissions compared to current standards. In general, single-family residences built to the 2019 standards are anticipated to use approximately 7% less energy due to energy efficiency measures than those built to the 2016 standards; once rooftop solar electricity generation is factored in, single-family residences built under the 2019 standards will use approximately 53% less energy than those under the 2016 standards (CEC 2018). Nonresidential buildings built to the 2019 standards are anticipated to use an estimated 30% less energy than those built to the 2016 standards (CEC 2018).

The 2019 Title 24 standards focus on building energy efficiency and ensuring solar electricity generated on site is used on site. “Looking beyond the 2019 standards, the most important energy characteristic for a building will be that it produces and consumes energy at times that are appropriate and responds to the needs of the grid, which reduces the building’s emissions” (CEC 2018). In furtherance of that characteristic, the 2019 standards require that new homes include solar photovoltaic to meet the home's expected annual electric needs, and also encourage demand-responsive technologies including battery storage, heat-pump water heaters, and improving buildings’ thermal envelopes through high performance attics, walls, and windows. These smarter homes perform better and affect the grid less, which reduces the buildings’ GHG emissions.

**Title 24, Part 11.** In addition to the CEC’s efforts, in 2008, the California Building Standards Commission adopted the nation’s first green building standards. The California Green Building Standards Code (Part 11 of Title 24) is commonly referred to as California’s Green Building Standards (CALGreen), and establishes minimum mandatory standards as well as voluntary standards pertaining to the planning and design of sustainable site development, energy efficiency (in excess of the California Energy Code requirements), water conservation, material conservation, and interior air quality. The CALGreen standards took effect in January 2011 and instituted mandatory minimum environmental performance standards for all ground-up, new construction of commercial, low-rise residential and state-owned buildings and schools and hospitals. The CALGreen 2016 standards, which are the current standards, became effective on January 1, 2017. The CALGreen 2019 standards will continue to improve upon the 2016 CALGreen standards, and has gone into effect as of January 1, 2020.

The mandatory standards require the following (24 CCR Part 11):

- Mandatory reduction in indoor water use through compliance with specified flow rates for plumbing fixtures and fittings
- Mandatory reduction in outdoor water use through compliance with a local water efficient landscaping ordinance or the California Department of Water Resources’ Model Water Efficient Landscape Ordinance
- 65% of construction and demolition waste must be diverted from landfills
- Mandatory inspections of energy systems to ensure optimal working efficiency
- Inclusion of electric vehicle (EV) charging stations or designated spaces capable of supporting future charging stations
- Low-pollutant emitting exterior and interior finish materials, such as paints, carpets, vinyl flooring, and particle boards

The CALGreen standards also include voluntary efficiency measures that are provided at two separate tiers and implemented at the discretion of local agencies and applicants. CALGreen’s Tier 1 standards call for a 15% improvement in energy requirements; stricter water conservation, 65% diversion of construction and demolition waste, 10% recycled content in building materials, 20% permeable paving, 20% cement reduction, and cool/solar-reflective roofs. CALGreen’s more rigorous Tier 2 standards call for a 30% improvement in energy requirements, stricter water conservation, 80% diversion of construction and demolition waste, 15% recycled content in building materials, 30% permeable paving, 25% cement reduction, and cool/solar-reflective roofs. The California Building Standards Commission approved amendments to the voluntary measures of the CALGreen standards in December 2018. The 2019 CALGreen standards are effective as of January 1, 2020. As with the 2019 Title 24 standards, the 2019 CALGreen standards focus on building energy efficiency.

The California Public Utilities Commission (CPUC), CEC, and CARB also have a shared, established goal of achieving zero net energy (ZNE) for new construction in California. The key policy timelines include: (1) all new residential construction in California will be ZNE by 2020, and (2) all new commercial construction in California will be ZNE by 2030 (CPUC 2013).<sup>4</sup> As most recently defined by the CEC in its 2015 Integrated Energy Policy Report, a ZNE code building is “one where the value of the energy produced by on-site renewable energy resources is equal to the value of the energy consumed annually by the building” using the CEC’s Time Dependent Valuation metric (CEC 2015).

**Title 20.** Title 20 of the California Code of Regulations requires manufacturers of appliances to meet state and federal standards for energy and water efficiency. The CEC certifies an appliance based on a manufacturer’s demonstration that the appliance meets the standards. New appliances regulated under Title 20 include refrigerators, refrigerator-freezers, and freezers; room air conditioners and room air-conditioning heat pumps; central air conditioners; spot air conditioners; vented gas space heaters; gas pool heaters; plumbing fittings and plumbing fixtures; fluorescent lamp ballasts; lamps; emergency lighting; traffic signal modules; dishwashers; clothes washers and dryers; cooking products; electric motors; low-voltage dry-type distribution transformers; power supplies; televisions and consumer audio and video equipment; and battery charger systems. Title 20 presents protocols for testing each type of appliance covered under the regulations and appliances must meet the standards for energy performance, energy design, water performance and water design. Title 20 contains three types of standards for appliances: federal and state standards for federally regulated appliances, state standards for federally regulated appliances, and state standards for non-federally regulated appliances.

**Senate Bill 1.** SB 1 (Murray) (August 2006) established a \$3 billion rebate program to support the goal of the state to install rooftop solar energy systems with a generation capacity of 3,000 megawatts through 2016. SB 1 added sections to the Public Resources Code, including Chapter 8.8 (California Solar Initiative), that require building projects applying for ratepayer-funded incentives for photovoltaic systems to meet minimum energy efficiency levels and performance requirements. Section 25780 established that it is a goal of the state to establish a self-sufficient solar industry. The goals included establishing solar energy systems as a viable mainstream option for both homes and businesses within 10 years of adoption, and placing solar energy systems on 50% of new homes within 13 years of adoption. SB 1, also termed “Go Solar California,” was previously titled “Million Solar Roofs.”

**California AB 1470 (Solar Water Heating).** This bill established the Solar Water Heating and Efficiency Act of 2007. The bill makes findings and declarations of the Legislature relating to the promotion of solar water heating systems and other technologies that reduce natural gas demand. The bill defines several terms for purposes of the act. The bill requires the commission to evaluate the data available from a specified pilot program, and, if it makes a specified determination, to design and implement a program of incentives for the installation of 200,000 solar water heating systems in homes and businesses throughout the state by 2017.

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<sup>4</sup> It is expected that achievement of the ZNE goal will occur via revisions to the Title 24 standards.

### ***Renewable Energy and Energy Procurement***

**SB 1078.** SB 1078 (Sher) (September 2002) established the Renewable Portfolio Standard (RPS) program, which required an annual increase in renewable generation by the utilities equivalent to at least 1% of sales, with an aggregate goal of 20% by 2017. This goal was subsequently accelerated, requiring utilities to obtain 20% of their power from renewable sources by 2010 (see SB 107, EO S-14-08, and S-21-09).

**SB 1368.** SB 1368 (September 2006), required the CEC to develop and adopt regulations for GHG emission performance standards for the long-term procurement of electricity by local publicly owned utilities. These standards must be consistent with the standards adopted by the California Public Utilities Commission (CPUC).

**AB 1109.** Enacted in 2007, AB 1109 required the CEC to adopt minimum energy efficiency standards for general-purpose lighting, to reduce electricity consumption 50% for indoor residential lighting and 25% for indoor commercial lighting.

**EO S-14-08.** EO S-14-08 (November 2008) focused on the contribution of renewable energy sources to meet the electrical needs of California while reducing the GHG emissions from the electrical sector. This EO required that all retail suppliers of electricity in California serve 33% of their load with renewable energy by 2020. Furthermore, the EO directed state agencies to take appropriate actions to facilitate reaching this target. The CNRA, through collaboration with the CEC and California Department of Fish and Wildlife (formerly the California Department of Fish and Game), was directed to lead this effort.

**EO S-21-09 and SB X1-2.** EO S-21-09 (September 2009) directed CARB to adopt a regulation consistent with the goal of EO S-14-08 by July 31, 2010. CARB was further directed to work with the CPUC and CEC to ensure that the regulation builds upon the RPS program and was applicable to investor-owned utilities, publicly owned utilities, direct access providers, and community choice providers. Under this order, CARB was to give the highest priority to those renewable resources that provide the greatest environmental benefits with the least environmental costs and impacts on public health and can be developed the most quickly in support of reliable, efficient, cost-effective electricity system operations. On September 23, 2010, CARB initially approved regulations to implement a Renewable Electricity Standard. However, this regulation was not finalized because of subsequent legislation (SB X1-2, Simitian, statutes of 2011) signed by Governor Brown in April 2011.

**SB X1 2** expanded the Renewables Portfolio Standard by establishing a renewable energy target of 20% of the total electricity sold to retail customers in California per year by December 31, 2013, and 33% by December 31, 2020, and in subsequent years. Under the bill, a renewable electrical generation facility is one that uses biomass, solar thermal, photovoltaic, wind, geothermal, fuel cells using renewable fuels, small hydroelectric generation (30 megawatts or less), digester gas, municipal solid waste conversion, landfill gas, ocean wave, ocean thermal, or tidal current, and that meets other specified requirements with respect to its location.

SB X1-2 applies to all electricity retailers in the state including publicly owned utilities, investor-owned utilities, electricity service providers, and community choice aggregators. All of these entities must meet the renewable energy goals previously listed.

**SB 350.** SB 350 (October 2015) further expanded the RPS by establishing a goal of 50% of the total electricity sold to retail customers in California per year by December 31, 2030. In addition, SB 350 included the goal to double the energy efficiency savings in electricity and natural gas final end uses (e.g., heating, cooling, lighting, or class of energy uses on which an energy-efficiency program is focused) of retail customers through energy conservation and efficiency. The bill also requires the CPUC, in consultation with the CEC, to establish efficiency targets for electrical and gas corporations consistent with this goal.

**SB 100.** SB 100 (2018) increased the standards set forth in SB 350 establishing that 44% of the total electricity sold to retail customers in California per year by December 31, 2024, 52% by December 31, 2027, and 60% by December 31, 2030, be secured from qualifying renewable energy sources. SB 100 states that it is the policy of the state that eligible renewable energy resources and zero-carbon resources supply 100% of the retail sales of electricity to California. This bill requires that the achievement of 100% zero-carbon electricity resources do not increase the carbon emissions elsewhere in the western grid and that the achievement not be achieved through resource shuffling.

### **Mobile Sources**

**AB 1493.** AB 1493 (Pavley) (July 2002) was enacted in a response to the transportation sector accounting for more than half of California's CO<sub>2</sub> emissions. AB 1493 required CARB to set GHG emission standards for passenger vehicles, light-duty trucks, and other vehicles determined by the state board to be vehicles that are primarily used for noncommercial personal transportation in the state. The bill required that CARB set GHG emission standards for motor vehicles manufactured in 2009 and all subsequent model years. CARB adopted the standards in September 2004. When fully phased in, the near-term (2009–2012) standards will result in a reduction of about 22% in GHG emissions compared to the emissions from the 2002 fleet, while the mid-term (2013–2016) standards will result in a reduction of about 30%.

**Heavy Duty Diesel.** CARB adopted the final Heavy Duty Truck and Bus Regulation, Title 13, Division 3, Chapter 1, Section 2025, on December 31, 2014, to reduce PM and NO<sub>x</sub> emissions from heavy-duty diesel vehicles. The rule requires PM filters be applied to newer heavier trucks and buses by January 1, 2012, with older vehicles required to comply by January 1, 2015. The rule will require nearly all diesel trucks and buses to be compliant with the 2010 model year engine requirement by January 1, 2023. CARB also adopted an Airborne Toxic Control Measure to limit idling of diesel-fueled commercial vehicles on December 12, 2013. This rule requires diesel-fueled vehicles with gross vehicle weights greater than 10,000 pounds to idle no more than 5 minutes at any location (13 CCR 2485).

**EO S-1-07.** EO S-1-07 (January 2007, implementing regulation adopted in April 2009) sets a declining LCFS for GHG emissions measured in CO<sub>2e</sub> grams per unit of fuel energy sold in California. The initial target of the LCFS is to reduce the carbon intensity of California passenger vehicle fuels by at least 10% by 2020 (17 CCR 95480 et seq.). The carbon intensity measures the amount of GHG emissions in the lifecycle of a fuel, including extraction/feedstock production, processing, transportation, and final consumption, per unit of energy delivered. The Low Carbon Fuel Standard was subsequently amended in 2018 to require a 20% reduction in carbon intensity by 2030. This new requirement aligns with the California's overall 2030 target of reducing climate changing emissions 40% below 1990 levels by 2030, set by SB 32. CARB has adopted implementing regulations for both the 10% and 20% carbon intensity reduction targets.

**SB 375.** SB 375 (Steinberg) (September 2008) addresses GHG emissions associated with the transportation sector through regional transportation and sustainability plans. SB 375 requires CARB to adopt regional GHG reduction targets for the automobile and light-truck sector for 2020 and 2035 and to update those targets every 8 years. SB 375 requires the state's 18 regional metropolitan planning organizations (MPOs) to prepare a Sustainable Communities Strategy (SCS) as part of their Regional Transportation Plan (RTP) that will achieve the GHG reduction targets set by CARB. If a MPO is unable to devise an SCS to achieve the GHG reduction target, the MPO must prepare an Alternative Planning Strategy demonstrating how the GHG reduction target would be achieved through alternative development patterns, infrastructure, or additional transportation measures or policies.

Pursuant to Government Code, Section 65080(b)(2)(K), a SCS does not: (i) regulate the use of land; (ii) supersede the land use authority of cities and counties; or (iii) require that a city's or county's land use policies and regulations, including those in a general plan, be consistent with it. Nonetheless, SB 375 makes regional and local planning agencies responsible for developing those strategies as part of the federally required metropolitan transportation planning process and the state-mandated housing element process.

In September 2010, CARB adopted the first SB 375 targets for the regional metropolitan planning organizations. The targets for Southern California Association of Governments (SCAG) are an 8% reduction in emissions per capita by 2020 and a 13% reduction by 2035. Achieving these goals through adoption of a SCS is the responsibility of the metropolitan planning organizations. SCAG adopted its first RTP/SCS in April 2012. The plan quantified a 9% reduction by 2020 and a 16% reduction by 2035 (SCAG 2012). In June 2012, CARB accepted SCAG's quantification of GHG reductions and its determination the SCS, if implemented, would achieve SCAG targets. On April 4, 2016, the SCAG Regional Council adopted the 2016 RTP/SCS, which builds upon the progress made in the 2012 RTP/SCS. The updated RTP/SCS quantified an 8% reduction by 2020 and an 18% reduction by 2030 (SCAG 2016). In June 2016, CARB accepted SCAG's quantification of GHG reductions and its determination the SCS, if implemented, would achieve SCAG targets.

**Advanced Clean Cars Program and Zero-Emissions Vehicle Program.** The Advanced Clean Cars program (January 2012) is a new emissions-control program for model years 2015 through 2025. The program combines the control of smog- and soot-causing pollutants and GHG emissions into a single coordinated package. The package includes elements to reduce smog-forming pollution, reduce GHG emissions, promote clean cars, and provide the fuels for clean cars (CARB 2012). To improve air quality, CARB has implemented new emission standards to reduce smog-forming emissions beginning with 2015 model year vehicles. It is estimated that in 2025 cars will emit 75% less smog-forming pollution than the average new car sold today. To reduce GHG emissions, CARB, in conjunction with the EPA and the NHTSA, adopted new GHG standards for model year 2017 to 2025 vehicles; the new standards are estimated to reduce GHG emissions by 34% in 2025. The ZEV program will act as the focused technology of the Advanced Clean Cars program by requiring manufacturers to produce increasing numbers of ZEVs and plug-in hybrid electric vehicles in the 2018 to 2025 model years.

**EO B-16-12.** EO B-16-12 (March 2012) required that state entities under the governor's direction and control support and facilitate the rapid commercialization of ZEVs. It ordered CARB, CEC, CPUC, and other relevant agencies to work with the Plug-in Electric Vehicle Collaborative and the California Fuel Cell Partnership to establish benchmarks to help achieve benchmark goals by 2015, 2020, and 2025. On a statewide basis, EO B-16-12 established a target reduction of GHG emissions from the transportation sector equaling 80% less than 1990 levels by 2050. This directive did not apply to vehicles that have special performance requirements necessary for the protection of the public safety and welfare.

**AB 1236.** AB 1236 (October 2015) (Chiu) required a city, county, or city and county to approve an application for the installation of EV charging stations, as defined, through the issuance of specified permits unless the city or county makes specified written findings based upon substantial evidence in the record that the proposed installation would have a specific, adverse impact upon the public health or safety, and there is no feasible method to satisfactorily mitigate or avoid the specific, adverse impact. The bill provided for appeal of that decision to the planning commission, as specified. The bill provided that the implementation of consistent statewide standards to achieve the timely and cost-effective installation of EV charging stations is a matter of statewide concern. The bill required electric vehicle charging stations to meet specified standards. The bill required a city, county, or city and county with a population of 200,000 or more residents to adopt an ordinance, by September 30, 2016, that created an expedited and streamlined permitting process for EV charging stations, as specified. The bill also required a city, county, or city and county with a population of less than 200,000 residents to adopt this ordinance by September 30, 2017.

**EO B-48-18.** EO B-48-18 (January 2018) launches an eight-year initiative to accelerate the sale of EVs through a mix of rebate programs and infrastructure improvements. The order also sets a new EV target of five million EVs in California by 2030. EO B-48-18 includes funding for multiple state agencies including the CEC to increase EV charging infrastructure and CARB to provide rebates for the purchase of new EVs and purchase incentives for low-income customers.

### ***Solid Waste***

**AB 939 and AB 341.** In 1989, AB 939, known as the Integrated Waste Management Act (California Public Resources Code, Sections 40000 et seq.), was passed because of the increase in waste stream and the decrease in landfill capacity. The statute established the California Integrated Waste Management Board, which oversees a disposal reporting system. AB 939 mandated a reduction of waste being disposed where jurisdictions were required to meet diversion goals of all solid waste through source reduction, recycling, and composting activities of 25% by 1995 and 50% by the year 2000.

AB 341 (Chapter 476, Statutes of 2011 [Chesbro]) amended the California Integrated Waste Management Act of 1989 to include a provision declaring that it is the policy goal of the state that not less than 75% of solid waste generated be source-reduced, recycled, or composted by the year 2020, and annually thereafter. In addition, AB 341 required the California Department of Resources Recycling and Recovery (CalRecycle) to develop strategies to achieve the state's policy goal. CalRecycle conducted several general stakeholder workshops and several focused workshops and in August 2015 published a discussion document titled AB 341 Report to the Legislature, which identifies five priority strategies that CalRecycle believes would assist the state in reaching the 75% goal by 2020, legislative and regulatory recommendations and an evaluation of program effectiveness (CalRecycle 2012).

### ***Water***

**EO B-29-15.** In response to the ongoing drought in California, EO B-29-15 (April 2015) set a goal of achieving a statewide reduction in potable urban water usage of 25% relative to water use in 2013. The term of the EO extended through February 28, 2016, although many of the directives have become permanent water-efficiency standards and requirements. The EO includes specific directives that set strict limits on water usage in the state. In response to EO B-29-15, the California Department of Water Resources has modified and adopted a revised version of the Model Water Efficient Landscape Ordinance that, among other changes, significantly increases the requirements for landscape water use efficiency and broadens its applicability to include new development projects with smaller landscape areas.

### ***Other State Actions***

**Senate Bill 97.** SB 97 (Dutton) (August 2007) directed the Governor's Office of Planning and Research (OPR) to develop guidelines under CEQA for the mitigation of GHG emissions. In 2008, OPR issued a technical advisory as interim guidance regarding the analysis of GHG emissions in CEQA documents. The advisory indicated that the lead agency should identify and estimate a project's GHG emissions, including those associated with vehicular traffic, energy consumption, water usage, and construction activities (OPR 2008). The advisory further recommended that the lead agency determine significance of the impacts and impose all mitigation measures necessary to reduce GHG emissions to a level that is less than significant.

Subsequent to the release of the Office of Planning and Research advisory and its development of proposed CEQA Guidelines provisions, the California Natural Resources Agency adopted CEQA Guidelines amendments pertaining to GHG emissions in December 2009, which became effective in March 2010. In December 2018, the California Natural Resources Agency finalized various additional amendments to the CEQA Guidelines, including Section 15064.4 therein. The amendments became effective on December 28, 2018 (OPR 2018). Section 15064.4, as most recently amended in 2018, was considered in this analysis.

With respect to GHG emissions, the CEQA Guidelines state that lead agencies “shall make a good faith effort, based to the extent possible on scientific and factual data, to describe, calculate or estimate” GHG emissions (14 CCR 15064.4(a)). The CEQA Guidelines also note that lead agencies shall quantify emissions by selecting a “model or methodology” of its choosing or rely on “qualitative analysis or performance based standards” (14 CCR 15064.4(a), (c)). The CEQA Guidelines further state that lead agencies should consider the following when assessing the significance of impacts from GHG emissions on the environment: (1) the extent a project may increase or reduce GHG emissions as compared to the existing environmental setting; (2) whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project; and (3) the extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of GHG emissions (14 CCR 15064.4(b)).

**EO S-13-08.** EO S-13-08 (November 2008) is intended to hasten California’s response to the impacts of global climate change, particularly sea-level rise. Therefore, the EO directs state agencies to take specified actions to assess and plan for such impacts. The final 2009 California Climate Adaptation Strategy report was issued in December 2009 (CNRA 2009b), and an update, Safeguarding California: Reducing Climate Risk, followed in July 2014 (CNRA 2014). To assess the state’s vulnerability, the report summarizes key climate change impacts to the state for the following areas: Agriculture, Biodiversity and Habitat, Emergency Management, Energy, Forestry, Ocean and Coastal Ecosystems and Resources, Public Health, Transportation, and Water. Issuance of the Safeguarding California: Implementation Action Plans followed in March 2016 (CNRA 2016). In January 2018, the CNRA released the Safeguarding California Plan: 2018 Update, which communicates current and needed actions that state government should take to build climate change resiliency (CNRA 2018b).

### **Regional and Local**

#### ***South Coast Air Quality Management District***

Air districts typically act in an advisory capacity to local governments in establishing the framework for environmental review of air pollution impacts under CEQA. This may include recommendations regarding significance thresholds, analytical tools to estimate emissions and assess impacts, and mitigations for potentially significant impacts. Although air districts will also address some of these issues on a project-specific basis as responsible agencies, they may provide general guidance to local governments on these issues (SCAQMD 2008). As discussed in Section 3.7.3, Thresholds of Significance, the SCAQMD has recommended numeric CEQA significance thresholds for GHG emissions for lead agencies to use in assessing GHG impacts of residential and commercial development projects; however, these thresholds were not adopted. See the SCAQMD Draft Guidance Document – Interim CEQA Greenhouse Gas Significance Threshold, dated October 2008, for a discussion of the proposed thresholds (SCAQMD 2008). See Section 3.2.2.3, Local (South Coast Air Quality Management District), for additional discussion on the SCAQMD.

***Southern California Association of Governments***

**SB 375** requires MPOs to prepare a SCS in their RTP. The SCAG Regional Council adopted the 2012 RTP/SCS in April 2012 (SCAG 2012), and the 2016–2040 RTP/SCS (2016 RTP/SCS) was adopted in April 2016. Both the 2012 and 2016 RTP/SCSs establish a development pattern for the region that, when integrated with the transportation network and other policies and measures, would reduce GHG emissions from transportation (excluding goods movement). Specifically, the 2012 RTP/SCS links the goals of sustaining mobility with the goals of fostering economic development; enhancing the environment; reducing energy consumption; promoting transportation-friendly development patterns; and encouraging all residents affected by socioeconomic, geographic, and commercial limitations to be provided with fair access. The 2012 and 2016 RTP/SCSs do not require that local general plans, specific plans, or zoning be consistent with it but provide incentives for consistency for governments and developers. Because the current SCAQMD AQMP (2016 AQMP) is based on the SCAG 2016 RTP/SCS demographic growth forecasts for various socioeconomic categories (e.g., population, housing, employment by industry) developed by SCAG for their 2016–2040 RTP/SCS, the SCAG 2016 RTP/SCS is discussed in Section 3.7.4, Impacts Analysis. See Section 3.2, Air Quality, under subheading Local (Southern California Association of Governments), for an additional discussion on SCAG.

**The City of Riverside**

***City of Riverside General Plan 2025 – Air Quality Element***

The City’s General Plan 2025 (City of Riverside 2007) addresses GHGs in the Air Quality Element, which sets forth a number of provisions and programs to reduce current pollution emissions, to require new development to include measures to comply with air quality standards, and to address new air quality requirements. The element also identifies strategies the City will utilize to ensure that its residents and businesses are not unnecessarily exposed to toxic air contaminants. In addition to the goals, policies, and strategies identified in Section 3.2 that would reduce criteria air pollutants, which would also result in co-benefits to reducing GHG emissions, the following goals and policies are applicable to the Northside Specific Plan.

***Sustainable Riverside and Global Warming***

***Energy***

- Policy AQ-8.5** Adopt and implement a policy to increase the use of renewable energy to meet 33% of the City’s electric load by 2020.
- Policy AQ-8.6** Promote Riverside as a Solar City through the implementation of programs for residential and commercial customers that will increase solar generation in the City to 1 megawatt (MW) by 2015 (enough for 1,000 homes), and 3 MW by 2020.
- Policy AQ-8.7** Generate at least 10 MW (enough for 10,000 homes) of electric load from regional zero emissions sources by 2025.
- Policy AQ-8.8** Reduce the City’s per capita base load energy consumption by 10% through energy efficiency and conservation programs by 2016.
- Policy AQ-8.9** Implement programs to encourage load shifting to off peak hours and explore demand response solutions by the end of 2008.

### Greenhouse Gas Emissions

- Policy AQ-8.10** Establish the 1990 GHG emission baseline for the City government on a per capita basis by the end of 2008.
- Policy AQ-8.11** Implement a climate action plan that will reduce GHG emissions by 7% of the 1990 municipal baseline by 2012.
- Policy AQ-8.12** Develop a calculation for and establish the 1990 GHG emissions baseline on a per capital basis for the City of Riverside as a geographic locale by the end of 2009.
- Policy AQ-8.13** Utilizing the City boundaries as defined in 2008, implement a climate action plan to reduce GHG emissions by 7% of the 1990 City baseline by 2012.
- Policy AQ-8.14** Establish programs that comply with the South Coast Air Quality Management District (AQMD) and the City’s General Plan 2025 to increase the quality of air in Riverside.
- Policy AQ-8.15** Aggressively support programs at the AQMD that reduce GHG and particulate matter generation in the Los Angeles and Orange County regions to improve air quality and reduce pollution in Riverside.

### Waste Reduction

- Policy AQ-8.16** Implement programs to encourage and increase participation of diverted waste from landfills by 2% before the end of 2008.
- Policy AQ-8.17** Develop measures to encourage that a minimum of 40% of the waste from all construction sites throughout Riverside be recycled by the end of 2008.
- Policy AQ-8.18** Encourage the reduction of any disposable, toxic, or non-renewable products (example: no pharmaceuticals or paint down the drain) by 5% through program creation by 2009.
- Policy AQ-8.19** Implement educational programs to promote green purchasing throughout the community before 2009.

### Urban Design

- Policy AQ-8.20** Establish a policy that mandates a green building rating system standard that applies to all new municipal buildings over 5,000 square feet by January 1, 2008.
- Policy AQ-8.21** Implement programs to encourage green buildings in the private sector by January 1, 2008.

- Policy AQ-8.22** Encourage programs to establish green operations and maintenance for public and private sector businesses before 2009.
- Policy AQ-8.23** Apply urban planning principles that encourage higher density, mixed use, walkable/bikeable neighborhoods, and coordinate land use and transportation with open space systems in 2008.
- Policy AQ-8.24** Meet the environmentally sensitive goals of the General Plan 2025 specified in the Mitigation Monitoring Program of the Program Environmental Impact Report, and the Implementation Plan following the timelines set forth in each.
- Policy AQ-8.25** Evaluate programs that address indoor air quality issues by the end of 2008.

#### Transportation

- Policy AQ-8.30** Synchronize traffic signals along primary City arterials by the end of 2008.
- Policy AQ-8.31** Implement a program to design, construct, or close at least one of the 26 railroad grade separations each year.
- Policy AQ-8.32** Reconstruct at least two freeway/street interchanges by 2012.
- Policy AQ-8.33** Increase the number of clean vehicles in the nonemergency City fleet to at least 60% by 2010.
- Policy AQ-8.34** Encourage the use of bicycles as an alternative form of transportation, not just recreation, by increasing the number of bike trails by 15 miles and bike lanes by 111 miles throughout the City before 2025.
- Policy AQ-8.35** Develop programs to reduce mobile sources of air pollution, such as encouraging the purchase of alternative fuel vehicles or lower emission hybrids and plug-ins, for the residential and business community before 2009.
- Policy AQ-8.36** Promote and encourage the use of alternative methods of transportation throughout the community by providing programs to City employees that can be duplicated in local businesses.
- Policy AQ-8.37** Implement a regional transit program between educational facilities by 2010. **Policy AQ-8.38:** Coordinate a plan with local agencies to expand affordable convenient public transit that will assist in reducing the per capita vehicle trips with the City limits by 2009.

### Water

**Policy AQ-8.39** Develop and implement a public education outreach program that addresses the discharge of preventable contaminants into the sanitary sewer system by Riverside residents and businesses by 2009.

**Policy AQ-8.40** Develop recycling methods and expand existing uses for recycled wastewater by 2015.

**Policy AQ-8.41** Increase the use of recycled water from the wastewater treatment plant to recover 15,000 acre feet or 30% on plant effluent by 2020.

**Policy AQ-8.42** Implement water efficiency, conservation, and education programs to reduce the City's per capita potable water usage by 15% by 2025.

### **The City of Riverside – Economic Prosperity Action Plan and Climate Action Plan**

The City of Riverside CAP (City of Riverside 2016) was adopted in 2016, and is qualified to 2035, expands upon the efforts of the WRCOG Subregional CAP, employing local measures to help the City achieve its GHG reduction target for 2035. The process of developing the WRCOG Subregional CAP included ongoing coordination and information sharing among participating jurisdictions. To further develop local GHG reduction measures for the Riverside Restorative Growthprint Climate Action Plan (RRG-CAP), the City conducted a more detailed assessment of local strategies and actions related to the measures in the Subregional CAP, expanding the discussion and analysis with respect to implementation (for post-2020 in particular), costs and funding, performance metrics, and local co-benefits. Local reduction measures in the RRG-CAP are organized into four major sectors:

- Energy – including electricity and natural gas consumption
- Transportation and Land Use
- Water
- Solid Waste

The following local measures are identified in the RRG-CAP to reduce GHG Emissions:

**Measure E-1, Traffic and Street Lights:** Replace traffic and street lights with high-efficiency bulbs.

**Measure E-2, Shade Trees:** Strategically plant trees at new residential development to reduce the urban heat island effect

**Measure E-3, Local Utility Programs – Electricity:** Financing and incentives for business and home owners to make energy efficient, renewable energy, and water conservation improvements.

**Measure E-4, Renewable Energy Production on Public Property:** Large scale renewable energy installation on publicly owned property and in public rights of way

**Measure E-5, UCR Carbon Neutrality:** Collaborate with UCR to achieve a carbon neutral campus

**Measure E-6, RPU Technology Grants:** RPU grant programs to foster research, development and demonstration of innovative solutions to energy problems

**Measure T-1, Bicycle Infrastructure Improvements:** Expand on-street and off-street bicycle infrastructure, including bicycle lanes and bicycle trails

**Measure T-2, Bicycle Parking:** Provide additional options for bicycle parking

**Measure T-3, End of Trip Facilities:** Encourage use of non-motorized transportation modes by providing appropriate facilities and amenities for commuters

**Measure T-4, Promotional Transportation Demand Management:** Encourage Transportation Demand Management strategies

**Measure T-5, Traffic Signal Coordination:** Incorporate technology to synchronize and coordinate traffic signals along local arterials

**Measure T-6, Density:** Improve jobs-housing balance and reduce vehicle miles traveled by increasing household and employment densities

**Measure T-7, Mixed-Use Development:** Provide for a variety of development types and uses

**Measure T-8, Pedestrian-Only Areas:** Encourage walking by providing pedestrian-only community areas

**Measure T-9, Limit Parking Requirements for New Development:** Reduce requirements for vehicle parking in new development projects

**Measure T-10, High Frequency Transit Service:** Implement bus rapid transit service in the subregion to provide alternative transportation options

**Measure T-11, Voluntary Transportation Demand Management:** Encourage employers to create TDM programs for their employees

**Measure T-12, Accelerated Bike Plan Implementation:** Accelerate the implementation of all or specified components of a jurisdiction's adopted bike plan

**Measure T-13, Fixed Guideway Transit:** By 2020, complete feasibility study and by 2025 Introduce a fixed route transit service in the jurisdiction

**Measure T-14, Neighborhood Electric Vehicle Programs:** Implement development requirements to accommodate Neighborhood Electric Vehicles and supporting infrastructure

**Measure T-15, Subsidize Transit:** Increase access to transit by providing free or reduced passes

**Measure T-16, Bike Share Program:** Create nodes offering bike sharing at key locations throughout the City.

**Measure T-17, Car Share Program:** Offer Riverside residents the opportunity to use car sharing to satisfy short-term mobility needs

**Measure T-18, SB-743-Alternative to LOS:** Use SB 743 to incentivize development in the downtown and other areas served by transit

**Measure T-19, Alternative Fuel & Vehicle Technology and Infrastructure:** Promote the use of alternative fueled vehicles such as those powered by electric, natural gas, biodiesel, and fuel cells by Riverside residents and workers

**Measure T-20, Eco-Corridor / Green Enterprise Zone:** Create a geographically defined area(s) featuring best practices in sustainable urban design and green building focused on supporting both clean-tech and green businesses

**Measure W-1, Water Conservation and Efficiency:** Reduce per capita water use by 20% by 2020

**Measure SW-1, Yard Waste Collection:** Provide green waste collection bins community-wide

**Measure SW-2, Food Scrap and Compostable Paper Diversion:** Divert food and paper waste from landfills by implementing commercial and residential collection program.

**Measure A-1, Local Food and Agriculture:** Promote local food and agricultural programs

**Measure A-2, Urban Forest:** Augment City’s Urban and Community Forest Program to include an Urban Forest Management Plan

**The City of Colton**

**General Plan**

On December 17, 1991, the City Council of the City of Colton reviewed the Air Quality Element and in concurrence with the Planning Commission recommendation, amended the City of Colton General Plan by adopting the Air Quality Element (City of Colton 1991). The Model Air Quality Element of the Colton General Plan identifies goals, policies, and programs pertaining to governmental programs and actions, air and vehicular transportation, land use, and energy. The following goals, policies, and strategies would result in benefits to reducing GHG emissions:

**Goal 4** A pattern of land uses which can be efficiently served by a diversified transportation system and land development projects, which directly and indirectly generate the minimum feasible air pollutants.

**Policy 4.1** Manage growth by insuring the timely provision of infrastructure to serve new development.

**Policy 4.2** Improve the balance between jobs and housing in order to create a more efficient urban form

**Goal 6** Reduced emissions through reduced energy consumption.

- Policy 6.1** Reduce energy consumption through conservation improvements and requirements.
- Policy 6.2** Reduce water heating emissions resulting from swimming pool heaters and residential and commercial water heaters.
- Policy 6.3** Recycle wastes.

**City of Colton Climate Action Plan**

The City of Colton CAP (City of Colton 2015), was adopted in 2015 presents local GHG inventories, identifies the effectiveness of California initiatives to reduce GHG emissions, and identifies local measures that were selected by the City to reduce GHG emissions under the City’s jurisdictional control to achieve the City’s identified GHG reduction target. In addition to referencing City of Colton General Plan policies that contribute to GHG reductions, the CAP contains reduction measures related to the following sectors:

- Building energy
- On-road transportation
- Off-road transportation
- Off-road equipment
- Agriculture,
- Land use and urban design
- Solid waste management
- Wastewater
- Water Conveyance

The following local measures are identified in the City of Colton CAP to reduce GHG Emissions:

**Measure Energy-1:** Energy Efficiency Incentives and Programs to Promote Energy Efficiency for Existing Buildings

**Measure Energy-2:** Outdoor Lighting Upgrades for Existing Development

**Measure Energy-4:** Solar Installations in New Housing Developments

**Measure Energy-8:** Solar Installations for Existing Commercial/Industrial Buildings

**Measure On Road-1:** SB 375 Sustainable Communities Strategy (Regional)

**Measure On-Road-1.1:** Improve Transit Travel Time and Connectivity (Regional)

**Measure On-Road-1.2:** Other Transit Improvements (Regional)

**Measure On-Road-1.3:** Public Transit Funding (Regional)

**Measure On-Road-1.4:** Adopt Land Use Patterns to Favor Transit-Oriented Development (Local Regional)

- Measure On-Road-1.5:** Nonmotorized Zones (Local)
- Measure On-Road-1.6:** Traffic Calming (Local)
- Measure On-Road-1.7:** Traffic Signal Synchronization (Local)
- Measure On-Road-1.8:** Parking Policy (Local)
- Measure On-Road-1.9:** Trip Reduction Ordinance (Local)
- Measure On-Road-1.10:** Employer Provided Fringe Benefits (Local)
- Measure On-Road-1.11:** Pedestrian Bicycle Lanes (Local/Regional)
- Measure On-Road-1.12:** Pedestrian and Bicycle Network Improvements (Local/Regional)
- Measure On-Road-1.13:** Alternative Fuel Infrastructure (Local/Regional)
- Measure On-Road-1.14:** School Programs and Outreach (Local)
- Measure On Road-2:** “Smart Bus” Technologies (Regional)
- Measure Off-Road Equipment-1:** Electric-Powered Construction Equipment
- Measure Off-Road Equipment-2:** Idling Ordinance
- Measure Off-Road Equipment-3:** Electric Landscaping Equipment
- Measure Land Use-1:** Tree Planting Programs
- Measure Waste-1:** Increased Waste Diversion
- Measure Wastewater-1:** Methane Recovery
- Measure Water-1:** Require Adoption of the Voluntary CALGreen Water Efficiency Measures for New Construction
- Measure Water-3:** Encourage Water-Efficient Landscaping Practices
- Measure Water-4:** Senate Bill X7-7 The Water Conservation Act of 2009
- Measure PS-1:** GHG Performance Standard for New Development

***The County of Riverside General Plan***

The County of Riverside General Plan Air Quality Element (County of Riverside 2018) includes guidance on Riverside County’s GHG inventory reduction goals, thresholds, policies, guidelines, and implementation programs. In particular, the Climate CAP, updated in 2019 and qualified to 2030, elaborates on the General Plan goals and policies relative to GHG emissions and provides a specific implementation tool to guide future decisions of the County of Riverside.

### Transportation-Related Objectives

- AQ 20.1** Reduce vehicle miles traveled (VMT) by requiring expanded multi-modal facilities and services that provide transportation alternatives, such as transit, bicycle and pedestrian modes. Improve connectivity of the multi-modal facilities by providing linkages between various uses in the developments. (AI 47, 53, 146)
- AQ 20.2** Reduce VMT by facilitating an increase in transit options. In particular, coordinate with adjacent municipalities, transit providers and regional transportation planning agencies to develop mutual policies and funding mechanisms to increase the use of alternative transportation. (AI 47, 53, 146)
- AQ 20.3** Reduce VMT and GHG emissions by improving circulation network efficiency. (AI 47, 53, 146)
- AQ 20.4** Reduce VMT and traffic through programs that increase carpooling and public transit use, decrease trips and commute times, and increase use of alternative-fuel vehicles. (AI 47, 146)
- AQ 20.5** Reduce emissions from standard gasoline vehicles, through VMT, by requiring all new residential units to install circuits and provide capacity for electric vehicle charging stations (AI 47, 53, 146)
- AQ 20.6** Reduce emissions from commercial vehicles, through VMT, by requiring all new commercial buildings, in excess of 162,000 square feet, to install circuits and provide capacity for electric vehicle charging stations.

### Land Use-Related Objectives

- AQ 20.7** Reduce VMT through increased densities in urban centers and encouraging emphasis on mixed use to provide residential, commercial and employment opportunities in closer proximity to each other. Such measures will also support achieving the appropriate jobs-housing balance within the communities. (AI 47, 53, 117, 146)
- AQ 20.8** Reduce VMT by increasing options for non-vehicular access through urban design principles that promote higher residential densities with easily accessible parks and recreation opportunities nearby. (AI 115, 117, 146)
- AQ 20.9** Reduce urban sprawl in order to minimize energy costs associated with infrastructure construction and transmission to distant locations, and to maximize protection of open space. (AI 26)

Energy Efficiency and Energy Conservation Objectives

- AQ 20.10** Reduce energy consumption of the new developments (residential, commercial and industrial) through efficient site design that takes into consideration solar orientation and shading, as well as passive solar design. (AI 147)
- AQ 20.11** Increase energy efficiency of the new developments through efficient use of utilities (water, electricity, natural gas) and infrastructure design. Also, increase energy efficiency through use of energy efficient mechanical systems and equipment. (AI 147)
- AQ 20.12** Support programs to assist in the energy-efficient retrofitting of older affordable housing units to improve their energy efficiency, particularly residential units built prior to 1978 when CCR Title 24 energy efficiency requirements went into effect. (AI147)

Water Conservation and Biota Conservation Objectives

- AQ 20.13** Reduce water use and wastewater generation in both new and existing housing, commercial and industrial uses. Encourage increased efficiency of water use for agricultural activities. (AI 147)
- AQ 20.14** Reduce the amount of water used for landscaping irrigation through implementation of County Ordinance 859 and increase use of non-potable water.
- AQ 20.15** Decrease energy costs associated with treatment of urban runoff water through greater use of bioswales and other biological systems.
- AQ 20.16** Preserve and promote forest lands and other suitable natural and artificial vegetation areas to maintain and increase the carbon sequestration capacity of such areas within the County. Artificial vegetation could include urban forestry and reforestation, development of parks and recreation areas, and preserving unique farmlands that provide additional carbon sequestration potential.
- AQ 20.17** Protect vegetation from increased fire risks associated with drought conditions to ensure biological carbon remains sequestered in vegetation and not released to the atmosphere through wildfires.

Alternative Energy Objectives

- AQ 20.18** Encourage the installation of solar panels and other energy efficient improvements and facilitate residential and commercial renewable energy facilities (solar array installations, individual wind energy generators, etc.). (AI 147)

**AQ 20.19** Facilitate development and siting of renewable energy facilities and transmission lines in appropriate locations. (AI 147)

Waste Reduction Objectives

**AQ 20.20** Reduce the amount of solid waste generation by increasing solid waste recycle, maximizing waste diversion, and composting for residential and commercial generators. Reduction in decomposable organic solid waste will reduce the methane emissions at County landfills. (AI 146)

**County of Riverside Climate Action Plan**

Transportation

**R1-T1:** Assembly Bill 1493: Pavley I AB 1493 (Pavley) required CARB to adopt GHG standards for motor vehicles through model year 2015 that would result in reductions in GHG emissions by up to 25 percent in 2030.

**R1-T2:** Assembly Bill 1493: Pavley II The State of California committed to further strengthening the AB 1493 standards by introducing additional components to the State’s Advanced Clean Cars Program that will further reduce GHG emissions State-wide, including more stringent fuel efficiency standards for model years 2017 through 2025 and support infrastructure for the commercialization of zero-emission vehicles. CARB anticipates additional GHG reductions of 3 percent by 2020, 27 percent by 2035, and 33 percent by 2050.

**R1-T3:** Executive Order S-1-07 (Low Carbon Fuel Standard) The Low Carbon Fuel Standard will require a reduction of at least 10 percent in the carbon intensity of California's transportation fuels by 2020. The State is currently implementing this standard, which is being phased in and will achieve full implementation in 2020. The LCFS target would be maintained beyond 2020.

**R2-T1:** Alternative Transportation Options Alternative transportation includes taking transit and non-motorized transportation options, among them walking and bicycling, and variants such as small-wheeled transport such as skates, skateboards, push scooters and hand carts, and wheelchair travel. These modes provide both recreation and transportation, and can reduce VMT by removing automobiles from the road. This is an enhancement of Measures R2-T2, R2-T3, R2-T6, R2-T9, and R3- T1 proposed in the 2015 CAP. Potential actions for this measure include:

- Work with SCAG and the community to remove barriers to alternative transportation.
- Create a “bike to work day” or “car-free zone day” and other County sponsored events to promote bicycling and other non-motorized transportation.

- Create additional active transportation routes from transit centers to surrounding residential areas.
- Implement reduced parking requirement in areas served by transit.

**R2-T2:** Adopt and Implement a Bicycle Master Plan to Expand Bike Routes around the County Bicycle-friendly roads are crucial to promoting bicycle use as a transportation method. People tend to bicycle if routes are available to separate them from motor vehicles and bicyclists’ safety can be ensured. Currently, Riverside County has not adopted a bicycle master plan. Thus, adopting and implementing a bicycle master plan and constructing more bicycle routes would encourage more bicycle rides and would help to reduce VMT. This is a new measure for the County’s consideration. Potential action for this measure includes:

- Adopt and implement a bicycle master plan.
- Expand bicycle routes and prioritize funding for Class I bicycle lanes to improve bike transit.

**R2-T3:** Ride-Sharing and Bike-to-Work Programs within Businesses Approximately 81 percent of people living in unincorporated area of Riverside County drive alone to work every day (SCAG 2019a). A higher ride-sharing rate or bike-to-work rate would mean fewer VMT and GHG emissions, so encouraging carpooling and bicycling by providing incentive programs and necessary facilities can reduce GHG emissions. This is an enhancement of Measures R2-T1, R2-T4, and R2-T6 proposed in the 2015 CAP. Potential actions for this measure include:

- Promote ride-sharing and facilitate air district incentives for ride-sharing.
- Provide reserved preferential parking spaces for ride-sharing, carpooling, and ultra-low- or zero-emission vehicles.
- Zoning code update that requires businesses of a certain size to provide facilities such as bicycle racks.

**R2-T4:** Electrify the Fleet Hybrid electric vehicles, plug-in hybrid electric vehicles, and EVs produce lower emissions than conventional vehicles. Any type of electrified vehicle emits less GHG than conventional vehicles by at least 40 percent. However, more than 95 percent of people still drive conventional gasoline or diesel vehicles, so programs to encourage the use of EV or hybrid vehicle ownership are highly needed. With the Statewide EV ownership goal and the implementation of this measure, EV ownership in Riverside County could reach 13 percent by 2030. Per the Settlement Agreement, for all new residential development, the County requires installation of EV charging stations in the garages of the residential units. The Settlement Agreement further states that the capacity and circuits for installation of EV charging stations to be provided in the garages of residential units and all new large-scale commercial

buildings that are over 162,000 square feet. This is an enhancement of Measures R2-T7 and R3-T2 proposed in the 2015 CAP. Potential actions for this measure include:

- Require all new residential development to include EV chargers in the garages of residential units.
- Promote EV incentive programs at outreach meetings.
- Promote Neighborhood Electric Vehicle (NEV).
- Support application for grants to install e-chargers at public facilities.
- Work with community groups and businesses to install e-chargers.
- Comply with State Title 24 energy efficiency requirements for new commercial development to install e-chargers starting in 2020

**Energy Efficiency**

**R1-EE1:** California Building Code Title 24 California’s building efficiency standards are updated regularly to incorporate new energy efficiency technologies. The code was most recently updated in 2016 and went into effect for new development in 2017. For projects implemented after January 1, 2017, the California Energy Commission estimates that the 2016 Title 24 energy efficiency standards will reduce consumption by an estimated 28 percent for residential buildings and 5 percent for commercial buildings, relative to the 2013 standards. These percentage savings relate to heating, cooling, lighting, and water heating only; therefore, these percentage savings were applied to the estimated percentage of energy use by Title 24.

**R2-EE1:** Energy Efficiency Training, Education, and Recognition in the Residential Sector Opportunities for residents to improve energy efficiency in their homes include changes to their behaviors and physical modifications or improvements to their homes. Education of the public is at the core of attaining energy efficiency goals. While most of the measures include an outreach component, creating a specific education measure would emphasize the critical role of education in achieving energy efficiency. An education measure would also provide County staff with a framework to educate community members about behavioral and technological changes that can increase energy efficiency. This is an enhancement of Measure R3-E2 proposed in the 2015 CAP. Potential actions for this measure include:

- Post energy efficiency information or links on websites and/or social media and provide materials at public events.
- Set up an email list for blasts of new information or training sessions.
- Encourage homeowners to use the SCE Energy Education Centers for energy-efficiency resources.

- Promote and manage energy-efficiency programs which are not already in the purview of Energy Service Providers.
- Require building inspectors to hold trainings semi-annually on energy efficiency and Title 24 requirements.

**R2-EE2:** Increase Community Participation in Existing Energy-Efficiency Programs  
There are many energy efficiency opportunities that are low-cost for residents to initiate and would result in cost savings over time. These opportunities are generally from existing programs, such as SCE and SoCalGas, which offer rebates and incentives to purchase energy-efficient appliances and lights. Through this measure, the County would work to increase residents’ participation in existing energy efficiency programs that are low-cost and would provide a financial benefit to the residents. As programs change over time, continued and up-to-date outreach would be necessary. This is an enhancement of Measure R3-E4 proposed in the 2015 CAP. Potential action for this measure includes:

- Partner with the Southern California Association of Governments (SCAG), Western Riverside Council of Governments (WRCOG), SCE, and SoCalGas for outreach events, such as annual energy-efficiency fair.

**R2-EE3:** Home Energy Evaluations Home energy evaluations are necessary to identify cost-effective opportunities for energy savings and for residents to take practical actions to achieve energy efficiency. Home energy evaluations can be established or promoted by a variety of existing programs. This is a new measure for the County’s consideration. Potential action for this measure includes:

- Promote SCE energy audits program for residents within the SCE service area and the Home Energy Saver Do It Yourself online energy audits for the IID service area.

**R2-EE4:** Residential Home Energy Renovations Approximately 17 percent of the residential buildings in the unincorporated area of Riverside County were constructed before 1970 (SCAG 2019a). Renovations to buildings constructed before the adoption of Title 24 would evidently improve energy efficiency. Many federal and State programs and incentives support home energy renovations, including County-supervised funding, permit process improvements, and County ordinances. This is an enhancement of Measures R1-E4, R1-E5, R2-E3, and R2-E4 proposed in the 2015 CAP. Potential actions for this measure include:

- Review Title 24 code compliance for existing residential buildings during code enforcement inspections of residential properties.
- Promote existing home energy-renovation programs.

- Promote participation in green building programs, such as Leadership in Energy and Environmental Design (LEED) and Energy Upgrade California.
- Promote financing programs for home upgrades, such as Home Energy Renovation Opportunity (HERO) program sponsored by the Western Riverside County Council of Governments (WRCOG) and other Property Assessed Clean Energy (PACE) programs in the IID service area.
- Establish online permitting to facilitate upgrades.

**R2-EE5:** Exceed Energy Efficiency Standards in New Residential Units County planners have a unique opportunity to encourage or inform developers of new energy efficiency opportunities for new development. This measure would educate County staff to encourage and implement energy efficiency measures beyond those required in current Title 24 standards. This measure would also ensure that as Title 24 standards are updated, County staff are well informed and can implement updates quickly and effectively. This is an enhancement of Measures R2-E1 and R2-E2 proposed in the 2015 CAP. Potential actions for this measure include:

- Educate County staff and developers on future Title 24 updates and new energy efficiency opportunities for new residential development.
- Promote Tier 1 and Tier 2 green building ratings such as LEED, Build It Green, or Energy Star®- certified buildings.
- Establish online permitting to facilitate new residential building energy-efficiency programs.
- Comply with State Title 24 energy efficiency requirements on new residential buildings, such as zero net energy homes that require all new residential construction projects to achieve zero net-energy use by 2020.

**R2-EE6:** Energy Efficiency Training, Education and Recognition in the Commercial Sector Education is at the core of attaining energy efficiency goals. A specific education measure would emphasize the critical role of education in achieving energy efficiency. This measure would provide County staff with a framework to interact with and educate the community about behavioral and technological changes that can increase energy efficiency in commercial buildings. This is an enhancement of Measure R3-E2 proposed in the 2015 CAP. Potential actions for this measure include:

- Post energy-efficiency information or links on websites and/or social media and provide materials at public events
- Set up an email list for blasts of new information or training sessions.
- Encourage business owners to visit SCE Energy Education Centers for energy efficiency resources.

- Promote and manage energy efficiency programs which are not already in the purview of Energy Service Providers.
- Invite building inspectors to hold trainings semi-annually on energy efficiency and Title 24.

**R2-EE7:** Increase Business Participation in Existing Energy Efficiency Programs  
There are many energy efficiency opportunities that are low-cost for businesses to initiate that would result in cost-savings over time. SCE and SoCalGas offer many rebates and incentives to purchasing energy-efficient appliances and lights. As many business owners may be unaware that the opportunities exist, this measure would allow for the County to increase the participation of businesses in existing energy-efficiency programs that are low-cost and would provide financial benefits. This is an enhancement of Measure R3-E4 proposed in the 2015 CAP. Potential action for this measure includes:

- Partner with SCAG, WRCOG, SCE, and SoCalGas for outreach events.

**R2-EE8:** Non-Residential Building Energy Audits Commercial energy audits are necessary to identify cost-effective opportunities for energy savings and for business owners to take practical actions to increase energy efficiency. The audits can be established or promoted by various existing programs. This is a new measure for the County’s consideration. The potential action for this measure is:

- Promote the SCE energy audit program for residents within the SCE service area and the Home Energy Saver Do It Yourself online energy audits for the IID service area.

**R2-EE9:** Non-Residential Building Retrofits As many of commercial buildings in unincorporated area of Riverside County were constructed before the adoption of Title 24, their facilities and equipment are not considered energy efficient. Therefore, retrofits are necessary to achieve higher energy efficiency. Many federal and State programs and incentives support nonresidential building energy retrofits, including County-supervised funding, permit process improvements, and County ordinances. This is an enhancement of Measures R1-E4, R1-E5, and R2-E7 proposed in the 2015 CAP. Potential actions for this measure include:

- Review Title 24 code compliance for existing non-residential buildings during code enforcement inspections.
- Promote existing non-residential building retrofits programs.
- Promote participation in green building programs, such as California Solar Initiative.
- Promote energy efficiency retrofit financing programs for non-residential buildings such as Property Assessed Clean Energy (PACE).
- Establish online permitting to facilitate retrofits.

**R2-EE10:** Energy Efficiency Enhancement of Existing and New Infrastructure  
Enhancing energy efficiency of existing and new infrastructure presents an opportunity for energy and cost savings for the County. The County could achieve energy savings by deploying high-efficiency lighting in new traffic signals and retrofitting existing traffic signals with energy-efficient lighting. Conventional traffic signals employ incandescent lamps. They are not energy-efficient and the on-going energy charge contributes a high proportion of the recurrent cost. Comparing with the conventional traffic signals, high-efficiency traffic signals consume much less electricity (about one-third or less) and have longer design life (over 10 years). The Settlement Agreement calls for consideration of a policy to require the use of high-efficiency bulbs at all new traffic signal lights and converting 100 percent existing traffic signal lights to high-efficiency bulbs by 2020. Per the Settlement Agreement, caution should be exercised while retrofitting the signals in the Mt. Palomar area to ensure the high efficiency bulbs do not cause any interference with the night sky viewing at Palomar Observatory. The potential actions for this measure include:

- Retrofit existing traffic signals with high-efficiency Light Emitting diodes (LEDs).
- Use high-efficiency LEDs for all new traffic signals.

**R2-EE11:** Exceed Energy Efficiency Standards in New Commercial Units  
County planners have a unique opportunity to inform and encourage developers to apply new energy efficiency opportunities in new development. This measure would educate County staff to encourage and implement energy efficiency beyond that required by current Title 24 standards. This measure would also ensure that as Title 24 standards are updated, County staff would be well informed and could implement updates quickly and effectively. This is an enhancement of Measures R2-E5 and R2-E6 proposed in the 2015 CAP. Potential actions for this measure include:

- Educate County staff and developers on future Title 24 updates and additional energy efficiency opportunities for new non-residential development.
- Promote Tier 1 and Tier 2 Green Building Ratings such as LEED, Build It Green, or Energy Star®- certified buildings.
- Establish online permitting to facilitate new non-residential building energy efficiency programs.
- Comply with State requirements on new non-residential buildings, such as Net-Zero Energy Buildings for all new non-residential development meeting zero net-energy use by 2030.

**Clean Energy**

**R1-CE1:** Renewable Portfolio Standard Senate Bills (SBs) 1075 (2002) and 107 (2006) created the State's Renewable Portfolio Standard (RPS), and SB 100 (2018) further requires the energy providers to derive 33 percent, 60 percent, and 100 percent of electricity from qualified renewable sources by 2020, 2030, and 2045, respectively. The RPS is anticipated to lower emission factors (i.e., fewer GHG emissions per kWh used) State-wide. Therefore, reductions from RPS are taken for energy embedded in water, as well as commercial/industrial and residential electricity.

**R2-CE1:** Clean Energy Clean energy includes energy efficiency and clean energy supply options such as highly efficient combined heat and power as well as renewable energy sources. Installing solar photovoltaics panels on residential and commercial building rooftops is an effective way to produce renewable energy on-site. Moreover, when combined with energy storage systems, solar panels could continuously meet residential and commercial energy demand. The Riverside County Settlement Agreement requires that on-site renewable energy production (including but not limited to solar) shall apply to any tentative tract map, plot plan, or conditional use permit that proposes to add more than 75 new dwelling units of residential development or one or more new buildings totaling more than 100,000 gross square feet of commercial, office, industrial, or manufacturing development. Renewable energy production shall be onsite generation of at least 20 percent of energy demand for commercial, office, industrial or manufacturing development, meet or exceed 20 percent of energy demand for multi-family residential development, and meet or exceed 30 percent of energy demand for single-family residential development. These renewable energy requirements should be updated with every CAP Update by the County based on most recent technology advancements. By identifying, designing, and implementing the clean energy measures and technology solutions, Riverside County would receive environmental and economic benefits, including reductions in GHG emissions. This is an enhancement of Measures R1-E6 and R3-E3 proposed in the 2015 CAP. Potential action for this measure includes:

- Outreach to the community to promote clean energy incentives.
- Require solar panel installation on new residential buildings (per conditions of the Settlement agreement described above).
- Require solar panel installation on new commercial buildings and commercial parking lots (per conditions of the Settlement Agreement described above).
- Encourage energy storage system installation with solar panels

**R2-CE2:** Community Choice Aggregation Program Assembly Bill 117, which was signed into law in 2002, allows California cities and counties to either individually or collectively supply electricity to customers within their

borders through the establishment of a Community Choice Aggregation (CCA) program. The County could assess the feasibility of initiating a CCA program. CCA programs that are currently operating have renewable energy percentages between 33 and 100, and the national opt-out rates for these programs range from 3 to 8 percent with most programs at or below 5 percent.<sup>28</sup> Participation in a CCA program could provide a significant source of future emission reductions to the County. The first step is to conduct a feasibility analysis to assess the benefits, costs, risks, and obstacles of a CCA program. Then the County could make a decision to whether or not implement a local CCA program or opt for a regional CCA. The advantages of regional CCAs that include participation from multiple local jurisdictions would be the creation of efficiencies. The County could seek opportunities for collaboration with other local jurisdictions to develop and implement a CCA that would produce mutually beneficial results. Developing a CCA would require a detailed analysis of energy demand, efficiency opportunities, and available clean electricity sources for purchase. Per the Settlement Agreement,<sup>29</sup> the County must update the CAP every four years. This allows enough time to conduct a feasibility analysis on initiating a CCA program and provide details on the reduction potential based upon the decisions of the County. Potential action for this measure includes:

- Evaluate the potential for implementing a CCA program to meet GHG reduction targets
- Conduct feasibility analysis to initiate a CCA program at the County level or in cooperation with other jurisdictions.

#### **Advanced Measures**

**R2-L1:** Tree Planting for Shading and Energy Saving Trees and vegetation lower surface and air temperatures by providing shade and through evapotranspiration, making vegetation a simple and effective way to reduce urban heat islands. Shaded surfaces may be 20 to 45 degrees Fahrenheit ([°F], equal to 11 to 25 degrees Celsius [°C]) cooler than the peak temperatures of unshaded materials. In addition, evapotranspiration, alone or in combination with shading, can help reduce peak summer temperatures by 2 to 9 °F (or 1 to 5 °C). Trees and vegetation that directly shade buildings can reduce energy use by decreasing demand for air conditioning. This is an enhancement of Measure R3-L1 proposed in the 2015 CAP. Potential actions for this measure include:

- Work with the community to support nonprofit tree-planting groups within the County consisting of volunteers to plant and care for trees correctly and safely.
- Develop and promote a County tree-planting program for new development at plan check.

**R2-L2:** Light Reflecting Surfaces for Energy Saving Replacing surface areas with light-reflecting materials can decrease heat absorption and lower outside air temperature. Both roofs and pavements are ideal surfaces for taking advantage of this advanced technology. A cool roof is built from materials with high thermal emittance and high solar reflectance, or albedo, to help reflect sunlight and the associated energy away from a building. These properties help roofs absorb less heat and stay up to 50 to 60 °F (or 28 to 33 °C) cooler than conventional materials during peak summer weather. Cool roofs may be installed on low-slope roofs (such as the flat or gently sloping roofs typically found on commercial, industrial, and office buildings) or the steep-sloped roofs used in many residences and retail buildings. Cool pavement is built from materials that reflect more solar energy, enhance water evaporation, or have been otherwise modified to remain cooler than conventional pavements. Cool pavement can be created with existing paving technologies as well as newer approaches such as the use of coatings, permeable paving, or grass paving. Cool pavements save energy by lowering the outside air temperature, allowing air conditioners to cool buildings with less energy, and reducing the need for electric street lighting at night. This is an enhancement of Measure R3-L2 proposed in the 2015 CAP. Potential actions for this measure include:

- Comply with Title 24 requirements on installing enhanced cool roofs.
- Comply with Title 24 requirements on installing cool pavements

**Water Efficiency**

**R1-W1:** Renewable Portfolio Standard Related to Water Supply and Conveyance This measure would increase electricity production from eligible renewable power sources to 33 percent by 2020, 60 percent by 2030, and 100 percent by 2045. A reduction in GHG emissions results from replacing natural gas-fired electricity production with zero GHG-emitting renewable sources of power

**R2-W1:** Water Efficiency through Enhanced Implementation of Senate Bill X7-7 SB X7-7, or The Water Conservation Act of 2009, requires all water suppliers to increase water use efficiency. The legislation set an overall goal of reducing per capita urban water consumption by 20 percent from a baseline level by 2020. While water districts are responsible for implementation of SB X7-7, the County can provide a meaningful supporting role in the implementation of water conservation. This goal can be met by taking a variety of actions, including supporting targeted public outreach by water districts and promoting water efficiency measures such as low-irrigation landscaping. This is an enhancement of Measure R2-W1 proposed in the 2015 CAP. Potential actions for this measure include:

- Provide general water efficiency information and links to water district conservation webpages on the County’s website.
- Implement the low-irrigation landscaping requirements

**R2-W2:** Exceed Water Efficiency Standards In addition to SB X7-7, more actions are being studied or have been taken to exceed water efficiency standards. These efforts include education and outreach practices that could be combined with residential and commercial actions that promote reuse or recycled water, use of grey water, and the collection and use of harvested rainwater. This is an enhancement of Measures R2-W1 and R2-W2 proposed in the 2015 CAP. Potential actions for this measure include:

- Support water districts in direct outreach to homeowner associations, businesses, and other community groups to inform them on water efficiency standards
- Promote recycled or grey water for community uses such as residential landscaping.
- Promote rainwater harvesting rebates and demonstrations

**Solid Waste**

**R2-S1:** Reduce Waste to Landfills According to 2014 Statewide Waste Characterization data (CalRecycle 2015), much of the waste disposed in landfills is readily recyclable. Increasing the recovery of recyclable materials will directly reduce GHG emissions. In particular, recycled materials can reduce the GHG emissions from multiple phases of product production, including extraction of raw materials, preprocessing, and manufacturing. This is an enhancement of Measures R1-S1, R2-S1, R3-S2, and R3-S3 proposed in the 2015 CAP. Potential actions for this measure include:

- Outreach to the community to promote waste recycling and diversion.
- Add additional recycling containers in public places.
- Comply with Statewide waste reduction, recycling, and composting requirements.
- Promote community clean-up days by providing commercial containers for trash and recycling.

### 3.7.3 Thresholds of Significance

The significance criteria used to evaluate the Northside Specific Plan’s GHG emissions impacts are based on the recommendations provided in Appendix G of the CEQA Guidelines (14 CCR 15000 et seq.). For the purposes of this GHG emissions analysis, the Northside Specific Plan would have a significant environmental impact if it would:

1. Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment.
2. Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs.

Global climate change is a cumulative impact; a project participates in this potential impact through its incremental contribution combined with the cumulative increase of all other sources of GHGs. There are currently no established thresholds for assessing whether the GHG emissions of a project, such as the Northside Specific Plan, would be considered a cumulatively considerable contribution to global climate change; however, all reasonable efforts should be made to minimize a project's contribution to global climate change. In addition, while GHG impacts are recognized exclusively as cumulative impacts (CAPCOA 2008), GHG emissions impacts must also be evaluated at a project level under CEQA.

The CEQA Guidelines do not prescribe specific methodologies for performing an assessment, do not establish specific thresholds of significance, and do not mandate specific mitigation measures. Rather, the CEQA Guidelines emphasize the lead agency's discretion to determine the appropriate methodologies and thresholds of significance consistent with the manner in which other impact areas are handled in CEQA (CNRA 2009a). The State of California has not adopted emission-based thresholds for GHG emissions under CEQA. The Governor's Office of Planning and Research's Technical Advisory titled "CEQA and Climate Change: Addressing Climate Change through California Environmental Quality Act Review" states that "public agencies are encouraged but not required to adopt thresholds of significance for environmental impacts. Even in the absence of clearly defined thresholds for GHG emissions, the law requires that such emissions from CEQA projects must be disclosed and mitigated to the extent feasible whenever the lead agency determines that the project contributes to a significant, cumulative climate change impact" (OPR 2008). Furthermore, the advisory document indicates that "in the absence of regulatory standards for GHG emissions or other scientific data to clearly define what constitutes a 'significant impact,' individual lead agencies may undertake a project-by-project analysis, consistent with available guidance and current CEQA practice." Section 15064.7(c) of the CEQA Guidelines specifies that "when adopting thresholds of significance, a lead agency may consider thresholds of significance previously adopted or recommended by other public agencies, or recommended by experts, provided the decision of the lead agency to adopt such thresholds is supported by substantial evidence."

In October 2008, the SCAQMD proposed recommended numeric CEQA significance thresholds for GHG emissions for lead agencies to use in assessing GHG impacts of residential and commercial development projects as presented in its *Draft Guidance Document – Interim CEQA Greenhouse Gas (GHG) Significance Threshold* (SCAQMD 2008). This guidance document, which builds on the previous guidance prepared by the California Air Pollution Control Officers Association, explored various approaches for establishing a significance threshold for GHG emissions. The draft interim CEQA thresholds guidance document was not adopted or approved by the Governing Board. However, in December 2008, the SCAQMD adopted an interim 10,000 MT CO<sub>2</sub>e per-year screening level threshold for stationary source/industrial projects for which the SCAQMD is the lead agency (see SCAQMD Resolution No. 08-35, December 5, 2008).

The SCAQMD formed a GHG CEQA Significance Threshold Working Group to work with SCAQMD staff on developing GHG CEQA significance thresholds until statewide significance thresholds or guidelines are established. From December 2008 to September 2010, the SCAQMD hosted working group meetings and revised the draft threshold proposal several times, although it did not officially provide these proposals in a subsequent document. The SCAQMD has continued to consider adoption of significance thresholds for residential and general land use development projects. The most recent proposal, issued in September 2010, uses the following tiered approach to evaluate potential GHG impacts from various uses (SCAQMD 2010):

- Tier 1** Determine if CEQA categorical exemptions are applicable. If not, move to Tier 2.
- Tier 2** Consider whether or not the project is consistent with a locally adopted GHG reduction plan that has gone through public hearing and CEQA review, that has an approved inventory, includes monitoring, etc. If not, move to Tier 3.

- Tier 3** Consider whether the project generates GHG emissions in excess of screening thresholds for individual land uses. The 10,000 MT CO<sub>2</sub>e per year threshold for industrial uses would be recommended for use by all lead agencies. Under option 1, separate screening thresholds are proposed for residential projects (3,500 MT CO<sub>2</sub>e per year), commercial projects (1,400 MT CO<sub>2</sub>e per year), and mixed-use projects (3,000 MT CO<sub>2</sub>e per year). Under option 2, a single numerical screening threshold of 3,000 MT CO<sub>2</sub>e per year would be used for all non-industrial projects. If the project generates emissions in excess of the applicable screening threshold, move to Tier 4.
- Tier 4** Consider whether the project generates GHG emissions in excess of applicable performance standards for the project service population (population plus employment). The efficiency targets were established based on the goal of AB 32 to reduce statewide GHG emissions to 1990 levels by 2020. The 2020 efficiency targets are 4.8 MT CO<sub>2</sub>e per service population per year (MT CO<sub>2</sub>e/SP/year) for project level analyses and 6.6 MT CO<sub>2</sub>e/SP/year for plan level analyses. The 2035 efficiency targets are 3.0 MT CO<sub>2</sub>e/SP/year for project level analyses and 4.1 MT CO<sub>2</sub>e/SP/year for plan level analyses. If the project generates emissions in excess of the applicable efficiency targets, move to Tier 5.
- Tier 5** Consider the implementation of CEQA mitigation (including the purchase of GHG offsets) to reduce the project efficiency target to Tier 4 levels.

Because the Northside Specific Plan involves a mix of different land use, this analysis applies the SCAQMD Option 1 screening threshold of 3,000 MT CO<sub>2</sub>e per year for mixed-use projects for Tier 3. While the Northside Specific Plan would include industrial land uses, because no stationary sources of emissions that would require a permit from the SCAQMD are specifically identified or analyzed herein, this analysis applies the threshold of 3,000 MT CO<sub>2</sub>e per year rather than the 10,000 MT CO<sub>2</sub>e per year threshold for industrial uses. Per the SCAQMD guidance, construction emissions should be amortized over the operational life of the project, which is assumed to be 30 years (SCAQMD 2008). This impact analysis, therefore, adds amortized construction emissions to the estimated annual operational emissions and then compares operational emissions to the proposed SCAQMD threshold of 3,000 MT CO<sub>2</sub>e per year for the Tier 3 analysis.

#### Construction Emissions

CalEEMod Version 2016.3.2 was used to estimate potential Specific Plan-generated GHG emissions during construction. Construction of projects in accordance with the Northside Specific Plan would result in GHG emissions primarily associated with the use of off-road construction equipment, on-road hauling and vendor (material delivery) trucks, and worker vehicles. All details for construction criteria air pollutants discussed in Section 3.2, Air Quality, Approach and Methodology (Construction Emissions), are also applicable for the estimation of construction-related GHG emissions. As such, see that section for a discussion of construction emissions calculation methodology and assumptions used in the GHG emissions analysis.

#### Operational Emissions

Emissions from the operational phase of the Northside Specific Plan were estimated using CalEEMod Version 2016.3.2. Operational year 2040 was assumed consistent with the traffic impact analysis (TIA) prepared for the Northside Specific Plan (Appendix H).

The GHG analysis follows the Northside Specific Plan scenarios analyzed in the TIA. The TIA includes trip generation for three Specific Plan land use scenarios as follows:

1. 2040 Baseline (Without Specific Plan) – 2040 Baseline without the Northside Specific Plan, which reflect the build-out of the City’s current General Plan.
2. Scenario 1 – 2040 (With Specific Plan)
3. Scenario 2 – 2040 (With Specific Plan)

Emissions from the 2040 Baseline land uses (Existing Scenario) and Scenarios 1 and 2 were estimated using CalEEMod to present the net change in GHG emissions. All three operational scenarios assume year 2040 buildout.

Potential Specific Plan-generated and Baseline Scenario operational GHG emissions were estimated for area sources (landscape maintenance), energy sources (natural gas and electricity), mobile sources, solid waste, and water supply and wastewater treatment. Emissions from each category are discussed in the following text with respect to the Northside Specific Plan. For additional details, see Section 3.2, Air Quality, Approach and Methodology (Operational Emissions), for a discussion of operational emission calculation methodology and assumptions, specifically for area, energy (natural gas), and mobile sources.

### **Area**

CalEEMod was used to estimate GHG emissions from the Northside Specific Plan’s area sources, which include operation of gasoline-powered landscape maintenance equipment, which produce minimal GHG emissions. See Section 3.2, Air Quality, for a discussion of landscaping equipment emissions calculations. Consumer product use and architectural coatings result in VOC emissions, which are analyzed in air quality analysis only, and little to no GHG emissions.

### **Energy**

The estimation of operational energy emissions was based on CalEEMod land use defaults and units or total area (i.e., square footage) of the Northside Specific Plan Scenarios and Existing Scenario land uses. The energy use (electricity or natural gas usage per square foot per year) from nonresidential land uses is calculated in CalEEMod based on the California Commercial End-Use Survey database. Emissions are calculated by multiplying the energy use by the utility carbon intensity (pounds of GHGs per kilowatt-hour for electricity or 1,000 British thermal units for natural gas) for CO<sub>2</sub> and other GHGs. Annual natural gas and electricity emissions were estimated in CalEEMod using the emissions factors for Riverside Public Utilities (RPU), which would be the primary energy provider for the SPA.

### ***Mobile Sources***

All details for criteria air pollutants discussed in Section 3.2, Air Quality, are also applicable for the estimation of operational mobile source GHG emissions. Regulatory measures related to mobile sources include AB 1493 (Pavley) and related federal standards. AB 1493 required that CARB establish GHG emission standards for automobiles, light-duty trucks, and other vehicles determined by CARB to be vehicles that are primarily used for noncommercial personal transportation in the state. In addition, the NHTSA and EPA have established corporate fuel economy standards and GHG emission standards, respectively, for automobiles and light-, medium-, and heavy-duty vehicles. Implementation of these standards and fleet turnover (replacement of older vehicles with newer ones) will gradually reduce emissions from the Northside Specific Plan’s motor vehicles. The effectiveness of fuel economy improvements was evaluated by using the CalEEMod emission factors for motor vehicles in 2040 for the Northside Specific Plan and Baseline Scenarios to the extent it was captured in EMFAC 2014.<sup>5</sup>

### ***Solid Waste***

The Northside Specific Plan and Baseline Scenarios would generate solid waste, and therefore, result in CO<sub>2</sub>e emissions associated with landfill off-gassing. CalEEMod default values for solid waste generation were used to estimate GHG emissions associated with solid waste for the Northside Specific Plan and Baseline Scenario. It was assumed that the Northside Specific Plan and Baseline Scenarios would have a 50% solid waste diversion rate, consistent with the solid waste diversion requirements of AB 939, Integrated Waste Management Act. It should be noted that this is a conservative assumption, as the goal for the state is 75% diversion by 2020 in accordance with AB 341.

### ***Water and Wastewater Treatment***

Supply, conveyance, treatment, and distribution of water for the Northside Specific Plan and Existing Scenarios require the use of electricity, which would result in associated indirect GHG emissions. Similarly, wastewater generated by the Northside Specific Plan and Baseline Scenarios requires the use of electricity for conveyance and treatment, along with GHG emissions generated during wastewater treatment. The indoor and outdoor water use and electricity consumption from water use and wastewater generation were estimated using CalEEMod default values for the Northside Specific Plan and Baseline Scenarios.

### ***Stationary Sources and Other Sources of Emissions***

Based on the type of land uses that would be developed under the Northside Specific Plan, there are additional emission sources that are either not captured in CalEEMod or specifics are not available to accurately estimate emissions using CalEEMod. Potential additional sources of GHG emissions include: emergency generators, boilers, broilers (meat cooking), ovens, cogeneration facilities, chillers, cooling towers, autoclave, metals production, painting and spray booths, offroad equipment (e.g., forklifts), truck idling, and transport refrigeration units. In addition, emissions from the stationary and mobile sources listed above are also anticipated to occur under the Existing Scenario based on the existing land use. Nonetheless, because specifics are not available to accurately estimate emissions from these anticipated sources under the Northside Specific Plan and Existing Scenarios, associated emissions are not included in the estimated emissions presented herein. However, all stationary sources developed under the Northside Specific Plan would be required to comply with applicable SCAQMD rules and regulations, and would be required to obtain a permit to operate from the SCAQMD.

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<sup>5</sup> The Low Carbon Fuel Standard calls for a 10% reduction in the “carbon intensity” of motor vehicle fuels by 2020, which would further reduce GHG emissions. However, the carbon intensity reduction associated with the Low Carbon Fuel Standard was not assumed in EMFAC 2014 and thus, was not included in CalEEMod 2016.3.2.

### 3.7.4 Impacts Analysis

**Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?**

#### Construction Impacts

**Less-than-Significant Impact.** Construction of future projects in accordance with the Northside Specific Plan would result in GHG emissions, which are primarily associated with use of off-road construction equipment and on-road vehicles (haul trucks, vendor trucks, and worker vehicles). The SCAQMD *Draft Guidance Document – Interim CEQA Greenhouse Gas (GHG) Significance Threshold (2008)* recommends that, “construction emissions be amortized over a 30-year project lifetime, so that GHG reduction measures will address construction GHG emissions as part of the operational GHG reduction strategies.” Thus, the total construction GHG emissions were calculated, amortized over 30 years, and added to the total operational emissions for comparison with the GHG significance threshold of 3,000 MT CO<sub>2</sub>e per year. Therefore, the determination of significance is addressed in the operational emissions discussion following the estimated construction emissions.

CalEEMod was used to calculate the annual GHG emissions based on the construction scenario described in Section 3.2, Air Quality, Approach and Methodology (Construction Emissions).

Construction of the Northside Specific Plan is assumed to last a total of approximately 20 years. On-site sources of GHG emissions include off-road equipment and off-site sources including haul trucks, vendor trucks, and worker vehicles. Table 3.7-4 presents construction emissions for the Northside Specific Plan during the worst case-year (2020) and total for Specific Plan buildout at year 2040 from on-site and off-site emission sources.

**Table 3.7-4. Estimated Annual Construction GHG Emissions**

Year	CO <sub>2</sub>	CH <sub>4</sub>	N <sub>2</sub> O	CO <sub>2</sub> e
	Metric Tons per Year			
2020	11,313.09	0.91	0.00	11,335.89
<b>Total (x 20)</b>	<b>226,261.80</b>	<b>18.24</b>	<b>0.00</b>	<b>226,717.80</b>

**Notes:** GHG = greenhouse gas; CO<sub>2</sub> = carbon dioxide; CH<sub>4</sub> = methane; N<sub>2</sub>O = nitrous oxide; CO<sub>2</sub>e = carbon dioxide equivalent. See Appendix C for complete results.

As shown in Table 3.7-4, the estimated total GHG emissions during construction would total approximately 226,718 MT CO<sub>2</sub>e over the assumed 20-year construction period. Estimated Specific Plan-generated construction emissions amortized over 30 years would be approximately 7,557 MT CO<sub>2</sub>e per year. As there is no separate GHG threshold for construction, the evaluation of significance is discussed in the operational emissions analysis in the following text.

#### Operational Impacts

**Less-than-Significant Impact.** Operation of the Northside Specific Plan and operation under the Existing Scenario would generate GHG emissions through motor vehicle trips; landscape maintenance equipment operation (area source); energy use (natural gas and electricity); solid waste disposal; and water supply, treatment, and distribution and wastewater treatment. CalEEMod was used to calculate the annual GHG emissions based on the operational assumptions described in Section 3.2, Air Quality, Approach and Methodology (Operational Emissions).

The estimated operational Specific Plan-generated and Existing Scenario GHG emissions from area sources, energy usage, motor vehicles, solid waste generation, and water usage and wastewater generation, and the net change in emissions (Specific Plan minus the Baseline Scenario) are shown in Table 3.7-5 and Table 3.7-6, for Scenarios 1 and 2, respectively.

**Table 3.7-5. Scenario 1 - Estimated Annual Operational GHG Emissions**

Emission Source	CO <sub>2</sub>	CH <sub>4</sub>	N <sub>2</sub> O	CO <sub>2</sub> e
	Metric Tons per Year			
<b>Specific Plan – Scenario 1</b>				
Area	5,884.52	5.99	0.13	6,073.58
Energy	79,487.58	1.69	0.61	79,712.94
Mobile	129,366.41	4.75	0.00	129,485.16
Solid waste	4,849.55	286.60	0.00	12,014.54
Water supply and wastewater	19,445.19	112.96	2.75	23,088.84
<b>Total</b>	<b>239,033.25</b>	<b>411.99</b>	<b>3.49</b>	<b>250,375.06</b>
<b>Baseline Scenario</b>				
Area	2,279.06	2.32	0.05	2,352.16
Energy	123,971.72	2.65	0.91	124,307.81
Mobile	103,737.46	3.79	0.00	103,832.11
Solid waste	7,902.16	467.00	0.00	19,577.26
Water supply and wastewater	34,704.20	213.00	5.18	41,571.84
<b>Total</b>	<b>272,594.60</b>	<b>688.76</b>	<b>6.14</b>	<b>291,641.18</b>
<b>Net Change in Emissions</b>				
<b>Net Change (Specific Plan – Existing Scenario)</b>	<b>-33,561.35</b>	<b>-276.77</b>	<b>-2.65</b>	<b>-41,266.18</b>
<i>Amortized construction emissions</i>				7,557.26
<b>Total net operational + amortized construction GHGs</b>				<b>-33,708.86</b>

**Notes:** GHG = greenhouse gas; CO<sub>2</sub> = carbon dioxide; CH<sub>4</sub> = methane; N<sub>2</sub>O = nitrous oxide; CO<sub>2</sub>e = carbon dioxide equivalent. See Appendix C for complete results. Totals may not sum due to rounding. The Northside Specific Plan and Baseline Scenarios reflect operational year 2040. Limited to sources captured in CalEEMod.

**Table 3.7-6. Scenario 2 - Estimated Annual Operational GHG Emissions**

Emission Source	CO <sub>2</sub>	CH <sub>4</sub>	N <sub>2</sub> O	CO <sub>2</sub> e
	Metric Tons per Year			
<b>Specific Plan – Scenario 2</b>				
Area	5,349.40	5.45	0.12	5,521.40
Energy	93,737.77	1.99	0.73	94,004.77
Mobile	113,433.47	4.14	0.00	113,537.04
Solid waste	5,795.31	342.49	0.00	14,357.63
Water supply and wastewater	24,091.94	145.93	3.55	28,797.43
<b>Total</b>	<b>242,407.89</b>	<b>500.00</b>	<b>4.40</b>	<b>256,218.27</b>

Table 3.7-6. Scenario 2 - Estimated Annual Operational GHG Emissions

Emission Source	CO <sub>2</sub>	CH <sub>4</sub>	N <sub>2</sub> O	CO <sub>2</sub> e
	<i>Metric Tons per Year</i>			
<b>Baseline Scenario</b>				
Area	2,279.06	2.32	0.05	2,352.16
Energy	123,971.72	2.65	0.91	124,307.81
Mobile	103,737.46	3.79	0.00	103,832.11
Solid waste	7,902.16	467.00	0.00	19,577.26
Water supply and wastewater	34,704.20	213.00	5.18	41,571.84
<b>Total</b>	<b>272,594.60</b>	<b>688.76</b>	<b>6.14</b>	<b>291,641.18</b>
<b>Net Change in Emissions</b>				
<b>Net Change (Specific Plan – Existing Scenario)</b>	<b>-30,186.71</b>	<b>-188.76</b>	<b>-1.74</b>	<b>-35,422.91</b>
<i>Amortized construction emissions</i>				7,557.26
<b>Total net operational + amortized construction GHGs</b>				<b>-27,865.65</b>

**Notes:** GHG = greenhouse gas; CO<sub>2</sub> = carbon dioxide; CH<sub>4</sub> = methane; N<sub>2</sub>O = nitrous oxide; CO<sub>2</sub>e = carbon dioxide equivalent. See Appendix C for complete results. Totals may not sum due to rounding. The Northside Specific Plan and Baseline Scenarios reflect operational year 2040. Limited to sources captured in CalEEMod.

As shown in Tables 3.7-5 and 3.7-6, estimated annual Specific Plan-generated GHG emissions would be approximately 250,375 and 256,218 MT CO<sub>2</sub>e per year as a result of Specific Plan operations only, respectively. As the Baseline Scenario is estimated to generate 291,641 MT CO<sub>2</sub>e per year, the net change in emissions is estimated to be -33,709 and -27,866 MT CO<sub>2</sub>e per year, respectively for Scenarios 1 and 2. As such, annual operational GHG emissions with amortized construction emissions would not exceed the SCAQMD threshold of 3,000 MT CO<sub>2</sub>e per year. Therefore, the Northside Specific Plan’s GHG contribution would be **less than significant**.

**Would the project conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?**

Consistency with the City of Colton and City of Riverside, County of Riverside General Plans and the Riverside County Climate Action Plan

**Less-than-Significant Impact.** Section 3.7.2.3 Regional and Local details the policies within the City of Colton, City of Riverside and Riverside County General Plans and Riverside County CAP relevant to the reduction of emissions of greenhouse gases. The General Plans and CAP identify a wide range of goals and implementation actions to increase the use of renewable energy, conserve energy and water, reduce solid waste, address global warming, tailor urban design, protect natural habitats, improve transportation options, and reduce risks to human health.

As described in Section 2.3, the Northside Specific Plan objectives are as follows:

1. Develop a sustainable community through the integration of a mix of land uses, including a diversity of affordable residential uses, a vertical mix of uses within the key districts, and the location of residential in proximity of commercial and employment uses.
2. Improve the quality of life for residents, including through creating a sense of place, community-based projects, revitalization of Ab Brown Sports Complex and redevelopment of the former Riverside Golf Course as a multi-use recreation space that includes cross country.

3. As redevelopment and development occurs, ensure the provision of adequate medical and health facilities, public services and infrastructure.
4. Promote multi-modal travel by expanding mobility options in pedestrian and bicycle friendly corridors, including connectivity via open space areas.
5. Eliminate or minimize truck traffic through residential and commercial neighborhoods by limiting truck routes south of Center Street.
6. Provide buffers for agricultural, industrial, residential and recreation land uses to address potential land use conflicts such as noise, emissions, and dust.
7. Preserve and interpret important cultural and historic resources in the SPA, including the Trujillo Adobe.
8. Restore the Springbrook Arroyo as a natural ecological system while also improving flood control.
9. Maintain or improve employment and business opportunities within SPA, including commercial, industrial and agricultural-related opportunities

Future development within the SPA would be subject to various regulations of local, state and federal agencies. The Northside Specific Plan would not conflict with the goals and policies of the City of Colton, City of Riverside and Riverside County General Plans and Riverside County CAP relevant to the reduction of emissions of greenhouse gases.

#### **Consistency with the SCAG's 2016–2040 Regional Transportation Plan and the 2016 SCAQMD AQMP**

**Less-than-Significant Impact.** SCAG's 2016 RTP/SCS is a regional growth-management strategy that targets per capita GHG reduction from passenger vehicles and light-duty trucks in the Southern California region pursuant to SB 375. The 2016 RTP/SCS incorporates local land use projections and circulation networks in city and county general plans. Typically, a project would be consistent with the RTP/SCS if the project does not exceed the underlying growth assumptions within the RTP/SCS. As discussed in Section 3.9, Population and Housing, the Project would induce a substantial amount of growth in the SPA. Northside Specific Plan proposals would potentially result in an additional 6,880 to 8,748 dwelling units, with 2,430 dwelling units in the Colton Residential Overlay zone. As discussed in Section 3.12.1.2, Housing, the City of Riverside has a ratio of 3.40 persons per dwelling unit, the City of Colton has a ratio of 3.29 persons per dwelling unit, and the County of Riverside has a ratio of 3.26 persons per dwelling unit (U.S. Census Bureau 2017a, b). Based on these ratios, implementation of the Northside Specific Plan would have the potential to increase the population in the City of Riverside portion of the SPA by an estimated 20,310 to 26,533 people. The population in the City of Colton's portion of the SPA would potentially increase by an estimated 2,961 to 4,606 people.

Implementation of the Northside Specific Plan would establish a total buildout of approximately 16.6 the square footage of spaces appropriate for employment hubs (i.e., Commercial [C], Business Park [BP], Business/Office Park [B/OP], Light Industrial [LI]). These changes in land use designations would directly support a substantial increase in population by subsequently providing an increase in workspaces. While the Northside Specific Plan would induce substantial direct population growth in the area, the estimated increase in population because of the Northside Specific Plan would align with the SCAG forecasted population growth. According to SCAG's 2016 RTP, the City of Riverside is forecasted to have a population of 339,000 by 2020 and 386,600 by 2040 (SCAG 2016). Additionally, the City of Colton is forecasted to have a population of 60,700 by 2020 and 69,100 by 2040. As discussed in Section 3.12.1.1, Population, as of 2018, the City of Riverside has a population of 330,063; and the City of Colton has a population of 54,828. This represents a planned growth of 47,600 within the City of Riverside, and 8,400 within the City of Colton between the years of 2020 and 2040. As mentioned earlier, the Northside Specific Plan would potentially add 16,504 to 20,645 persons to the City of Riverside, 2,961 to 4,606 persons to the City of Colton, and 845 to 1,282 persons to the County of Riverside, which would be consistent with the planned growth for these areas.

In addition to demonstrating the region's ability to attain and exceed the GHG emission-reduction targets set forth by CARB, the 2016 RTP/SCS outlines a series of actions and strategies for integrating the transportation network with an overall land use pattern that responds to projected growth, housing needs, changing demographics, and transportation demands. Thus, successful implementation of the 2016 RTP/SCS would result in more complete communities with a variety of transportation and housing choices, while reducing automobile use. With regard to individual developments, such as those that would occur in accordance with the Northside Specific Plan, the strategies and policies set forth in the 2016 RTP/SCS can be grouped into the following three categories: (1) reduction of vehicle trips and VMT; (2) increased use of alternative fuel vehicles; and (3) improved energy efficiency. The Northside Specific Plan's consistency with these three strategy categories is evaluated below.

### **Consistency with VMT Reduction Strategies and Policies**

The Northside Specific Plan's consistency with this aspect of the 2016 RTP/SCS is demonstrated via the Northside Specific Plan's land use characteristics and features that would reduce vehicular trips and VMT, as well as the Northside Specific Plan's consistency with the regional growth forecast assumed in the 2016 RTP/SCS. As discussed in Section 3.2.4 (Air Quality (AQ)-A), vehicle trip generation and planned development for the Northside Specific Plan site are concluded to have been anticipated in the SCAG 2016 RTP/SCS growth projections. While the Northside Specific Plan would induce substantial direct population growth in the area, the estimated increase in population because of the Northside Specific Plan would align with the SCAG forecasted population growth. As discussed in Section 3.12.1.1, Population, as of 2018, the City of Riverside has a population of 330,063; the City of Colton has a population of 54,828, and the County of Riverside has a population of 2,415,954.

The estimated growth as a result of the Northside Specific Plan in the County of Riverside, the City of Riverside, and the City of Colton are aligned with the population forecast for the jurisdictions. Therefore, the Project is anticipated to be consistent with 2016 RTP/SCS strategies focused on VMT.

### **Consistency with Increased Use of Alternative Fueled Vehicles Policy Initiative**

The second goal of the 2016 RTP/SCS, with regard to individual development projects such as the Northside Specific Plan, is to increase alternative fueled vehicles to reduce per capita GHG emissions. This 2016 RTP/SCS policy initiative focuses on accelerating fleet conversion to electric or other near zero-emission technologies. The portions of the Northside Specific Plan within Riverside County would be consistent with the Riverside County CAP, which states the following:

Per the Settlement Agreement, for all new residential development, the County requires installation of EV charging stations in the garages of the residential units. The Settlement Agreement further states that the capacity and circuits for installation of EV charging stations to be provided in the garages of residential units and all new large-scale commercial buildings that are over 162,000 square feet. This is an enhancement of Measures R2-T7 and R3-T2 proposed in the 2015 CAP. Potential actions for this measure include:

- Require all new residential development to include EV chargers in the garages of residential units.
- Promote EV incentive programs at outreach meetings.
- Promote Neighborhood Electric Vehicle (NEV).
- Support application for grants to install e-chargers at public facilities.
- Work with community groups and businesses to install e-chargers.

The Northside Specific Plan would be consistent with the 2016 RTP/SCS strategies focused on alternative fueled vehicles.

**Consistency with Energy Efficiency Strategies and Policies**

The third important focus within the 2016 RTP/SCS, for individual developments such as the Northside Specific Plan, involves improving energy efficiency (e.g., reducing energy consumption) to reduce GHG emissions. The 2016 RTP/SCS goal is to actively encourage and create incentives for energy efficiency, where possible. The Northside Specific Plan would be consistent with the strategies contained in the SCAG 2016 RTP/SCS through consistency with the policies of the City of Colton and City of Riverside General Plan and Riverside County CAP, see Section 3.2.2 Regional and Local.

Based on consistency with the policies of the City of Colton and City of Riverside General Plan and Riverside County CAP, the Northside Specific Plan would be consistent with all of the strategies contained in the SCAG 2016 RTP/SCS.

**Consistency with CARB’s Scoping Plan**

The Scoping Plan (approved by CARB in 2008 and updated in 2014 and 2017) provides a framework for actions to reduce California’s GHG emissions and requires CARB and other state agencies to adopt regulations and other initiatives to reduce GHGs. The Scoping Plan is not directly applicable to specific projects, nor is it intended to be used for project-level evaluations.<sup>6</sup> Under the Scoping Plan, however, there are several state regulatory measures aimed at the identification and reduction of GHG emissions. CARB and other state agencies have adopted many of the measures identified in the Scoping Plan. Most of these measures focus on area source emissions (e.g., energy usage, high-GWP GHGs in consumer products) and changes to the vehicle fleet (i.e., hybrid, electric, and more fuel-efficient vehicles) and associated fuels (e.g., Low Carbon Fuel Standard), among others.

The Scoping Plan recommends strategies for implementation at the statewide level to meet the goals of AB 32 and establishes an overall framework for the measures that will be adopted to reduce California’s GHG emissions. Table 3.7-7 highlights measures that have been, or will be, developed under the Scoping Plan and presents the Northside Specific Plan’s consistency with Scoping Plan measures. The Northside Specific Plan would comply with all regulations adopted in furtherance of the Scoping Plan to the extent required by law and to the extent that they are applicable to the Northside Specific Plan.

**Table 3.7-7. Northside Specific Plan Consistency with Scoping Plan GHG Emission Reduction Strategies**

Scoping Plan Measure	Measure Number	Northside Specific Plan Consistency
<i>Transportation Sector</i>		
Advanced Clean Cars	T-1	<i>Consistent.</i> Purchased vehicles within the SPA would be in compliance with CARB vehicle standards that are in effect at the time of vehicle purchase.

<sup>6</sup> The Final Statement of Reasons for the amendments to the CEQA Guidelines reiterates the statement in the Initial Statement of Reasons that “[t]he Scoping Plan may not be appropriate for use in determining the significance of individual projects because it is conceptual at this stage and relies on the future development of regulations to implement the strategies identified in the Scoping Plan” (CNRA 2009).

Table 3.7-7. Northside Specific Plan Consistency with Scoping Plan GHG Emission Reduction Strategies

Scoping Plan Measure	Measure Number	Northside Specific Plan Consistency
Low Carbon Fuel Standard	T-2	<i>Consistent.</i> This is a statewide measure that cannot be implemented by a project applicant or lead agency. Nonetheless, this standard would be applicable to the fuel used by vehicles within the SPA
Regional Transportation-Related GHG Targets	T-3	<i>Not applicable.</i> The Northside Specific Plan is not related to developing GHG emission reduction targets. The Northside Specific Plan would not preclude the implementation of this strategy.
Advanced Clean Transit	N/A	<i>Not applicable.</i> The Northside Specific Plan would not prevent CARB from implementing this measure.
Last-Mile Delivery	N/A	<i>Not applicable.</i> The Northside Specific Plan would not prevent CARB from implementing this measure.
Reduction in VMT	N/A	<i>Not applicable.</i> The Northside Specific Plan would not prevent CARB from implementing this measure.
Vehicle Efficiency Measures <ol style="list-style-type: none"> <li>1. Tire Pressure</li> <li>2. Fuel Efficiency Tire Program</li> <li>3. Low-Friction Oil</li> <li>4. Solar-Reflective Automotive Paint and Window Glazing</li> </ol>	T-4	<i>Not applicable.</i> The Northside Specific Plan would not prevent CARB from implementing this measure.
Ship Electrification at Ports (Shore Power)	T-5	<i>Not applicable.</i> The Northside Specific Plan would not prevent CARB from implementing this measure.
Goods Movement Efficiency Measures <ol style="list-style-type: none"> <li>1. Port Drayage Trucks</li> <li>2. Transport Refrigeration Units Cold Storage Prohibition</li> <li>3. Cargo Handling Equipment, Anti-Idling, Hybrid, Electrification</li> <li>4. Goods Movement Systemwide Efficiency Improvements</li> <li>5. Commercial Harbor Craft Maintenance and Design Efficiency</li> <li>6. Clean Ships</li> <li>7. Vessel Speed Reduction</li> </ol>	T-6	<i>Not applicable.</i> The Northside Specific Plan would not prevent CARB from implementing this measure.
Heavy-Duty Vehicle GHG Emission Reduction <ul style="list-style-type: none"> <li>• Tractor-Trailer GHG Regulation</li> <li>• Heavy-Duty Greenhouse Gas Standards for New Vehicle and Engines (Phase I)</li> </ul>	T-7	<i>Consistent.</i> Heavy-duty vehicles would be required to comply with CARB GHG reduction measures. In addition, the Northside Specific Plan would not prevent CARB from implementing this measure.
Medium- and Heavy-Duty Vehicle Hybridization Voucher Incentive Project	T-8	<i>Consistent.</i> The Northside Specific Plan medium- and heavy-duty vehicles (e.g., delivery trucks) could take advantage of the vehicle hybridization action, which would reduce GHG emissions through increased fuel efficiency. In addition, the Northside Specific Plan would not prevent CARB from implementing this measure.

Table 3.7-7. Northside Specific Plan Consistency with Scoping Plan GHG Emission Reduction Strategies

Scoping Plan Measure	Measure Number	Northside Specific Plan Consistency
Medium and Heavy-Duty GHG Phase 2	N/A	<i>Not applicable.</i> The Northside Specific Plan would not prevent CARB from implementing this measure.
High-Speed Rail	T-9	<i>Not applicable.</i> The Northside Specific Plan would not prevent CARB from implementing this measure.
<b>Electricity and Natural Gas Sector</b>		
Energy Efficiency Measures (Electricity)	E-1	<i>Consistent.</i> The Northside Specific Plan would comply with the current Title 24 Building Energy Efficiency Standards. In addition, the Northside Specific Plan would not prevent CARB from implementing this measure.
Energy Efficiency (Natural Gas)	CR-1	<i>Consistent.</i> The Northside Specific Plan would comply with the current Title 24 Building Energy Efficiency Standards. In addition, the Northside Specific Plan would not prevent CARB from implementing this measure.
Solar Water Heating (California Solar Initiative Thermal Program)	CR-2	<i>Consistent.</i> The Northside Specific Plan would include solar water heating where feasible.
Combined Heat and Power	E-2	<i>Not applicable.</i> The Northside Specific Plan would not prevent CARB from implementing this measure.
Renewables Portfolio Standard (33% by 2020)	E-3	<i>Consistent.</i> The electricity used by the Northside Specific Plan would benefit from reduced GHG emissions resulting from increased use of renewable energy sources.
Renewables Portfolio Standard (50% by 2050)	N/A	<i>Consistent.</i> The electricity used by the Northside Specific Plan would benefit from reduced GHG emissions resulting from increased use of renewable energy sources.
SB 1 Million Solar Roofs (California Solar Initiative, New Solar Home Partnership, Public Utility Programs) and Earlier Solar Programs	E-4	<i>Not applicable.</i> The Northside Specific Plan would not prevent CARB from implementing this measure.
<b>Water Sector</b>		
Water Use Efficiency	W-1	<i>Not applicable.</i> The Northside Specific Plan would not prevent CARB from implementing this measure.
Water Recycling	W-2	<i>Not applicable.</i> The Northside Specific Plan would not prevent CARB from implementing this measure.
Water System Energy Efficiency	W-3	<i>Not applicable.</i> This is applicable for the transmission and treatment of water, but it is not applicable for the Northside Specific Plan. The Northside Specific Plan would not prevent CARB from implementing this measure.
Reuse Urban Runoff	W-4	<i>Not applicable.</i> The Northside Specific Plan would not prevent CARB from implementing this measure.
Renewable Energy Production	W-5	<i>Not applicable.</i> Applicable for wastewater treatment systems. In addition, the Northside Specific Plan would not prevent CARB from implementing this measure.
<b>Green Buildings</b>		
State Green Building Initiative: Leading the Way with State Buildings (Greening New and Existing State Buildings)	GB-1	<i>Consistent.</i> The Northside Specific Plan would be required to be constructed in compliance with state or local green building standards in effect at the time of building construction.

Table 3.7-7. Northside Specific Plan Consistency with Scoping Plan GHG Emission Reduction Strategies

Scoping Plan Measure	Measure Number	Northside Specific Plan Consistency
Green Building Standards Code (Greening New Public Schools, Residential and Commercial Buildings)	GB-1	<i>Consistent.</i> The Northside Specific Plan's buildings would meet green building standards that are in effect at the time of design and construction.
Beyond Code: Voluntary Programs at the Local Level (Greening New Public Schools, Residential and Commercial Buildings)	GB-1	<i>Consistent.</i> The Northside Specific Plan's buildings would meet green building standards that are in effect at the time of design and construction.
Greening Existing Buildings (Greening Existing Homes and Commercial Buildings)	GB-1	<i>Consistent.</i> This is applicable for existing buildings only; it is not applicable for portions of the Northside Specific Plan except as future standards may become applicable to existing buildings. For Specific Plan building that would be retrofitted, the buildings would meet current applicable building standards at the time of design and construction.
<b>Industry Sector</b>		
Energy Efficiency and Co-Benefits Audits for Large Industrial Sources	I-1	<i>Not applicable.</i> The Northside Specific Plan would not prevent CARB from implementing this measure.
Oil and Gas Extraction GHG Emission Reduction	I-2	<i>Not applicable.</i> The Northside Specific Plan would not prevent CARB from implementing this measure.
Reduce GHG Emissions by 20% in Oil Refinery Sector	N/A	<i>Not applicable.</i> The Northside Specific Plan would not prevent CARB from implementing this measure.
GHG Emissions Reduction from Natural Gas Transmission and Distribution	I-3	<i>Not applicable.</i> The Northside Specific Plan would not prevent CARB from implementing this measure.
Refinery Flare Recovery Process Improvements	I-4	<i>Not applicable.</i> The Northside Specific Plan would not prevent CARB from implementing this measure.
Work with the Local Air Districts to Evaluate Amendments to Their Existing Leak Detection and Repair Rules for Industrial Facilities to Include Methane Leaks	I-5	<i>Not applicable.</i> The Northside Specific Plan would not prevent CARB from implementing this measure.
<b>Recycling and Waste Management Sector</b>		
Landfill Methane Control Measure	RW-1	<i>Not applicable.</i> The Northside Specific Plan would not prevent CARB from implementing this measure.
Increasing the Efficiency of Landfill Methane Capture	RW-2	<i>Not applicable.</i> The Northside Specific Plan would not prevent CARB from implementing this measure.
Mandatory Commercial Recycling	RW-3	<i>Consistent.</i> During both construction and operation of the Northside Specific Plan, the Northside Specific Plan would comply with all state regulations related to solid waste generation, storage, and disposal, including the California Integrated Waste Management Act, as amended.
Increase Production and Markets for Compost and Other Organics	RW-3	<i>Not applicable.</i> The Northside Specific Plan would not prevent CARB from implementing this measure.
Anaerobic/Aerobic Digestion	RW-3	<i>Not applicable.</i> The Northside Specific Plan would not prevent CARB from implementing this measure.
Extended Producer Responsibility	RW-3	<i>Not applicable.</i> The Northside Specific Plan would not prevent CARB from implementing this measure.
Environmentally Preferable Purchasing	RW-3	<i>Not applicable.</i> The Northside Specific Plan would not prevent CARB from implementing this measure.

Table 3.7-7. Northside Specific Plan Consistency with Scoping Plan GHG Emission Reduction Strategies

Scoping Plan Measure	Measure Number	Northside Specific Plan Consistency
<b>Forests Sector</b>		
Sustainable Forest Target	F-1	<i>Not applicable.</i> The Northside Specific Plan would not prevent CARB from implementing this measure.
<b>High GWP Gases Sector</b>		
Motor Vehicle Air Conditioning Systems: Reduction of Refrigerant Emissions from Non-Professional Servicing	H-1	<i>Consistent.</i> The Northside Specific Plan’s employees would be prohibited from performing air conditioning repairs and would be required to use professional servicing.
SF <sub>6</sub> Limits in Non-Utility and Non-Semiconductor Applications	H-2	<i>Not applicable.</i> The Northside Specific Plan would not prevent CARB from implementing this measure.
Reduction of Perfluorocarbons (PFCs) in Semiconductor Manufacturing	H-3	<i>Not applicable.</i> The Northside Specific Plan would not prevent CARB from implementing this measure.
Limit High GWP Use in Consumer Products	H-4	<i>Not applicable.</i> The Northside Specific Plan would not prevent CARB from implementing this measure
Air Conditioning Refrigerant Leak Test During Vehicle Smog Check	H-5	<i>Not applicable.</i> The Northside Specific Plan would not prevent CARB from implementing this measure
Stationary Equipment Refrigerant Management Program – Refrigerant Tracking/Reporting/Repair Program	H-6	<i>Not applicable.</i> The Northside Specific Plan would not prevent CARB from implementing this measure.
Stationary Equipment Refrigerant Management Program – Specifications for Commercial and Industrial Refrigeration	H-6	<i>Not applicable.</i> The Northside Specific Plan would not prevent CARB from implementing this measure.
SF <sub>6</sub> Leak Reduction Gas Insulated Switchgear	H-6	<i>Not applicable.</i> The Northside Specific Plan would not prevent CARB from implementing this measure.
40% Reduction in Methane and Hydrofluorocarbon (HFC) Emissions	N/A	<i>Not applicable.</i> The Northside Specific Plan would not prevent CARB from implementing this measure.
50% Reduction in Black Carbon Emissions	N/A	<i>Not applicable.</i> The Northside Specific Plan would not prevent CARB from implementing this measure.
<b>Agriculture Sector</b>		
Methane Capture at Large Dairies	A-1	<i>Not applicable.</i> The Northside Specific Plan would not prevent CARB from implementing this measure.

**Notes:** GHG = greenhouse gas; CARB = California Air Resources Board; VMT = vehicle miles traveled; SB = Senate Bill; N/A = not applicable; SF<sub>6</sub> = sulfur hexafluoride.

Based on the analysis in Table 3.7-7, the Northside Specific Plan would be consistent with the applicable strategies and measures in the Scoping Plan.

#### Consistency with EO S-3-05 and SB 32

- **EO S-3-05.** This EO establishes the following goals: GHG emissions should be reduced to 2000 levels by 2010, to 1990 levels by 2020, and to 80% below 1990 levels by 2050.
- **SB 32.** This bill establishes for a statewide GHG emissions reduction target whereby CARB, in adopting rules and regulations to achieve the maximum technologically feasible and cost-effective GHG emissions reductions, shall ensure that statewide GHG emissions are reduced to at least 40% below 1990 levels by December 31, 2030.

This section evaluates whether the GHG emissions trajectory after Northside Specific Plan completion would impede the attainment of the 2030 and 2050 GHG reduction goals identified in EOs B-30-15 and S-3-05.

To begin, CARB has expressed optimism with regard to both the 2030 and 2050 goals. It states in the First Update to the Climate Change Scoping Plan that “California is on track to meet the near-term 2020 GHG emissions limit and is well positioned to maintain and continue reductions beyond 2020 as required by AB 32” (CARB 2014, p. ES2). With regard to the 2050 target for reducing GHG emissions to 80% below 1990 levels, the First Update to the Climate Change Scoping Plan states the following (CARB 2014, p. 34):

This level of reduction is achievable in California. In fact, if California realizes the expected benefits of existing policy goals (such as 12,000 megawatts of renewable distributed generation by 2020, net zero energy homes after 2020, existing building retrofits under AB 758, and others) it could reduce emissions by 2030 to levels squarely in line with those needed in the developed world and to stay on track to reduce emissions to 80% below 1990 levels by 2050. Additional measures, including locally driven measures and those necessary to meet federal air quality standards in 2032, could lead to even greater emission reductions.

In other words, CARB believes that the state is on a trajectory to meet the 2030 and 2050 GHG reduction targets set forth in AB 32, EO B-30-15, and EO S-3-05. This is confirmed in the 2017 Scoping Plan, which states (CARB 2017):

The Scoping Plan builds upon the successful framework established by the Initial Scoping Plan and First Update, while identifying new, technologically feasible and cost-effective strategies to ensure that California meets its GHG reduction targets in a way that promotes and rewards innovation, continues to foster economic growth, and delivers improvements to the environment and public health, including in disadvantaged communities.

**Consistency with General Plans and Climate Action Plans**

The following Tables 3.7-8 through 3.7-10 provide consistency determinations for the applicable City of Riverside General Plan, City of Colton General Plan and County of Riverside General Plan policies relevant to the reduction of GHG emissions. Tables 3.7-11 through 3.7-13 provides consistency determinations for the City of Riverside, City of Colton and County of Riverside CAPs. Consistency determinations are relevant for projects implemented in accordance with the Northside Specific Plan in each of the jurisdictions.

**Table 3.7-8. Northside Specific Plan Consistency with City of Riverside General Plan Policies**

General Plan Policy	Policy Number	Northside Specific Plan Consistency
Generate at least 10 MW (enough for 10,000 homes) of electric load from regional zero emissions sources by 2025	AQ-8.7	<i>Not Applicable.</i> The Northside Specific Plan would not prevent the City from obtaining electricity load from regional zero emission sources by 2025.
Establish programs that comply with the South Coast Air Quality Management District (AQMD) and the City’s General Plan 2025 to increase the quality of air in Riverside.	AQ-8.14	<i>Not Applicable.</i> The Northside Specific Plan would not prevent the City from establishing programs that comply with the South Coast Air Quality Management District (AQMD) and the City’s General Plan 2025 to increase the quality of air in Riverside.

Table 3.7-8. Northside Specific Plan Consistency with City of Riverside General Plan Policies

General Plan Policy	Policy Number	Northside Specific Plan Consistency
Aggressively support programs at the AQMD that reduce GHG and particulate matter generation in the Los Angeles and Orange County regions to improve air quality and reduce pollution in Riverside	AQ-8.15	Consistent. The Northside Specific Plan results in a net reduction of GHG emissions compared to the Baseline at year 2040 buildout.
Meet the environmentally sensitive goals of the General Plan 2025 specified in the Mitigation Monitoring Program of the Program Environmental Impact Report, and the Implementation Plan following the timelines set forth in each	AQ-8.24	<i>Not Applicable.</i> The Northside Specific Plan would not prevent the City from meeting the environmentally sensitive goals of the General Plan 2025.
Implement a program to design, construct, or close at least one of the 26 railroad grade separations each year	AQ-8.31	<i>Not Applicable.</i> The Northside Specific Plan would not prevent the City from implementing a program to design, construct, or close at least one of the 26 railroad grade separations each year.
Encourage the use of bicycles as an alternative form of transportation, not just recreation, by increasing the number of bike trails by 15 miles and bike lanes by 111 miles throughout the City before 2025	AQ-8.34	<i>Consistent.</i> As discussed in Section 2.0 one of the Northside Specific Plan goals is to promote multi-modal travel by expanding mobility options in pedestrian and bicycle friendly corridors, including connectivity via open space areas. The Northside Specific Plan is designed for residents and visitors to move about the community safely and efficiently via various modes of transportation. Bike lanes and sidewalks would be developed along community corridors to provide easy access to nearby parks, amenities, and the trail system. In addition, more Riverside Transportation Authority bus stops would be placed throughout the SPA to better connect the residential land uses to parks, schools, and employment areas. Overall, the proposed improvements to the transportation network would reduce reliance on personal vehicles to access amenities within the SPA and strengthen the connection to the regional transit system, thus reducing mobile source emissions.
Promote and encourage the use of alternative methods of transportation throughout the community by providing programs to City employees that can be duplicated in local businesses.	AQ-8.36	<i>Consistent.</i> As discussed in Section 2.0 one of the Northside Specific Plan goals is to promote multi-modal travel by expanding mobility options in pedestrian and bicycle friendly corridors, including connectivity via open space areas. The mobility plan would increase opportunities for multi-modal transportation within the SPA and connectivity to adjacent neighborhoods, thus reducing dependence on private vehicles and reducing carbon emissions associated with mobile sources.
Implement water efficiency, conservation, and education programs to reduce the City's per capita potable water usage by 15% by 2025	AQ-8.42	<i>Consistent.</i> Projects implemented in accordance with the Northside Specific Plan will meet CalGreen standards applicable at the time of construction including building water consumption standards.

**Table 3.7-9. Northside Specific Plan Consistency with City of Colton General Plan Policies**

General Plan Policy	Policy Number	Northside Specific Plan Consistency
Manage growth by insuring the timely provision of infrastructure to serve new development	4.1	<i>Not Applicable.</i> The Northside Specific Plan would not prevent the City from managing grow growth by insuring the timely provision of infrastructure to serve new development.
Improve the balance between jobs and housing in order to create a more efficient urban form	4.2	<i>Consistent.</i> As discussed in Section 2.0 one of the Northside Specific Plan goals is to develop a sustainable community through the integration of a mix of land uses, including a diversity of affordable residential uses, a vertical mix of uses within the key districts, and the location of residential in proximity of commercial and employment uses.
Reduce energy consumption through conservation improvements and requirements	6.1	<i>Consistent.</i> Projects implemented in accordance of the Northside Specific Plan will comply with State Title 24 energy efficiency requirements on new residential buildings and new commercial buildings.
Reduce water heating emissions resulting from swimming pool heaters and residential and commercial water heaters	6.2	
Recycle wastes	6.3	<i>Not Applicable.</i> The Northside Specific Plan would not prevent the City from implementing provisions of AB 939 and adopt incentives, regulations and procedures to specify local recycling requirements. Projects implemented in accordance of the Northside Specific Plan will comply applicable City recycling requirements.

**Table 3.7-10. Northside Specific Plan Consistency with County of Riverside General Plan Policies**

General Plan Policy	Policy Number	Northside Specific Plan Consistency
Reduce vehicle miles traveled (VMT) by requiring expanded multi-modal facilities and services that provide transportation alternatives, such as transit, bicycle and pedestrian modes. Improve connectivity of the multi-modal facilities by providing linkages between various uses in the developments	AQ 20.1	<i>Consistent.</i> As discussed in Section 2.0 one of the Northside Specific Plan goals is to promote multi-modal travel by expanding mobility options in pedestrian and bicycle friendly corridors, including connectivity via open space areas. The Northside Specific Plan is designed for residents and visitors to move about the community safely and efficiently via various modes of transportation. Bike lanes and sidewalks would be developed along community corridors to provide easy access to nearby parks, amenities, and the trail system. In addition, more Riverside Transportation Authority bus stops would be placed throughout the SPA to better connect the residential land uses to parks, schools, and employment areas. Overall, the proposed improvements to the transportation network would reduce reliance on personal vehicles to access amenities within the SPA and strengthen the connection to the regional transit system, thus reducing VMT and GHG emissions.

Table 3.7-10. Northside Specific Plan Consistency with County of Riverside General Plan Policies

General Plan Policy	Policy Number	Northside Specific Plan Consistency
Reduce VMT by facilitating an increase in transit options	AQ 20.2	<i>Consistent. See response to AQ 20.1</i>
Reduce VMT and GHG emissions by improving circulation network efficiency	AQ 20.3	<i>Consistent. See response to AQ 20.1</i>
Reduce VMT and traffic through programs that increase carpooling and public transit use, decrease trips and commute times, and increase use of alternative-fuel vehicles	AQ 20.4	<i>Consistent. See response to AQ 20.1</i>
Reduce emissions from standard gasoline vehicles, through VMT, by requiring all new residential units to install circuits and provide capacity for electric vehicle charging stations	AQ 20.5	<i>Consistent. Project implemented in accordance with the Northside Specific Plan will meet the applicable CalGreen standards for EV charging</i>
Reduce emissions from commercial vehicles, through VMT, by requiring all new commercial buildings, in excess of 162,000 square feet, to install circuits and provide capacity for electric vehicle charging stations	AQ 20.6	<i>Consistent. Non-residential projects implemented in accordance with the Northside Specific Plan will meet the applicable CalGreen standards for EV charging.</i>
Reduce VMT through increased densities in urban centers and encouraging emphasis on mixed use to provide residential, commercial and employment opportunities in closer proximity to each other. Such measures will also support achieving the appropriate jobs-housing balance within the communities	AQ 20.7	<i>Consistent. As discussed in Section 2.0 one of the Northside Specific Plan goals is to develop a sustainable community through the integration of a mix of land uses, including a diversity of affordable residential uses, a vertical mix of uses within the key districts, and the location of residential in proximity of commercial and employment uses.</i>
Reduce VMT by increasing options for non-vehicular access through urban design principles that promote higher residential densities with easily accessible parks and recreation opportunities nearby	AQ 20.8	<i>Consistent. As discussed in Section 2.0 one of the Northside Specific Plan goals is to develop a sustainable community through the integration of a mix of land uses, including a diversity of affordable residential uses, a vertical mix of uses within the key districts, and the location of residential in proximity of commercial and employment uses. The Northside Specific Plan includes approximately 233 acres of parkland, including a community park, potential for redevelopment of the Ab Brown Sports Complex, a network of trails, and restoration of the Springbrook Arroyo.</i>
Reduce urban sprawl in order to minimize energy costs associated with infrastructure construction and transmission to distant locations, and to maximize protection of open space	AQ 20.9	<i>Consistent. As discussed in Section 2.0 one of the Northside Specific Plan goals is to develop a sustainable community through the integration of a mix of land uses, including a diversity of affordable residential uses, a vertical mix of uses within the key districts, and the location of residential in proximity of commercial and employment uses.</i>

Table 3.7-10. Northside Specific Plan Consistency with County of Riverside General Plan Policies

General Plan Policy	Policy Number	Northside Specific Plan Consistency
Reduce energy consumption of the new developments (residential, commercial and industrial) through efficient site design that takes into consideration solar orientation and shading, as well as passive solar design	AQ 20.10	<i>Consistent.</i> Residential projects implemented in accordance with the Northside Specific Plan will be required to meet applicable requirements for roof top solar as mandated by the Home Solar Mandate, starting in year 2020.
Increase energy efficiency of the new developments through efficient use of utilities (water, electricity, natural gas) and infrastructure design. Also, increase energy efficiency through use of energy efficient mechanical systems and equipment	AQ 20.11	<i>Consistent.</i> As discussed in Section 2.0 one of the Northside Specific Plan goals is to develop a sustainable community through the integration of a mix of land uses, including a diversity of affordable residential uses, a vertical mix of uses within the key districts, and the location of residential in proximity of commercial and employment uses. This integration of mix of land uses allows for efficient use of utilities including water, electricity and natural gas. Efficient mechanical systems and equipment would result from meeting CalGreen building standards.
Support programs to assist in the energy-efficient retrofitting of older affordable housing units to improve their energy efficiency, particularly residential units built prior to 1978 when CCR Title 24 energy efficiency requirements went into effect	AQ 20.12	<i>Not Applicable.</i> The Northside Specific Plan would not prevent the County from supporting programs to assist in the energy-efficient retrofitting of older affordable housing units
Reduce water use and wastewater generation in both new and existing housing, commercial and industrial uses. Encourage increased efficiency of water use for agricultural activities	AQ 20.13	<i>Not Applicable.</i> The Northside Specific Plan would not prevent the County from supporting programs to reduce water use and wastewater generation in both new and existing housing, commercial and industrial uses and to encourage increased efficiency of water use for agricultural activities
Reduce the amount of water used for landscaping irrigation through implementation of County Ordinance 859 and increase use of non-potable water	AQ 20.14	<i>Consistent.</i> Projects implemented in accordance with the Northside Specific Plan will meet the landscaping irrigation requirements of Count Ordinance 859
Decrease energy costs associated with treatment of urban runoff water through greater use of bioswales and other biological systems	AQ 20.15	<i>Not Applicable.</i> The Northside Specific Plan would not prevent the County from decreasing energy costs associated with treatment of urban runoff water through greater use of bioswales and other biological systems
Preserve and promote forest lands and other suitable natural and artificial vegetation areas to maintain and increase the carbon sequestration capacity of such areas within the County. Artificial vegetation could include urban forestry and reforestation, development of parks and recreation areas, and preserving unique farmlands that provide additional carbon sequestration potential	AQ 20.16	<i>Consistent.</i> The Northside Specific Plan includes approximately 233 acres of parkland, including a community park, potential for redevelopment of the Ab Brown Sports Complex, a network of trails, and restoration of the Springbrook Arroyo

Table 3.7-10. Northside Specific Plan Consistency with County of Riverside General Plan Policies

General Plan Policy	Policy Number	Northside Specific Plan Consistency
Protect vegetation from increased fire risks associated with drought conditions to ensure biological carbon remains sequestered in vegetation and not released to the atmosphere through wildfires	AQ 20.17	<i>Consistent.</i> The Northside Specific Plan would incorporate fire safety features in compliance with 2016 California Fire Code Standards (CM-WDF-3), and all on-site roadways would be designed in compliance with the City of Riverside Fire Code, City of Colton Fire Code, and County of Riverside Uniform Fire Code (CM WDF-2a and CM WDF-2c) to safeguard the community from threat of fire hazards. In addition, proposed development projects within Pellissier Ranch must comply with applicable Mitigation Actions included in Table 6-2 of the City of Colton Local Hazard Mitigation Plan (CM-WDF-1b).
Encourage the installation of solar panels and other energy efficient improvements and facilitate residential and commercial renewable energy facilities (solar array installations, individual wind energy generators, etc.	AQ 20.18	<i>Consistent.</i> See response to Policy AQ 20.10
Facilitate development and siting of renewable energy facilities and transmission lines in appropriate locations	AQ 20.19	<i>Not Applicable.</i> The Northside Specific Plan would not prevent the County from development and siting of renewable energy facilities and transmission lines in appropriate locations
Reduce the amount of solid waste generation by increasing solid waste recycle, maximizing waste diversion, and composting for residential and commercial generators. Reduction in decomposable organic solid waste will reduce the methane emissions at County landfills	AQ 20.20	<i>Not Applicable.</i> The Northside Specific Plan would not prevent the County from reducing the amount of solid waste generation by increasing solid waste recycle, maximizing waste diversion, and composting for residential and commercial generators.

Table 3.7-11. Northside Specific Plan Consistency with City of Riverside Climate Action Plan

RRG-CAP Measure	Measure Number	Northside Specific Plan Consistency
Traffic and Street Lights	E-1	<i>Not Applicable.</i> The Northside Specific Plan would not prevent the City from replacing traffic and street lights with high efficiency bulbs.
Shade Trees	E-2	<i>Not Applicable.</i> The Northside Specific Plan would not prevent the City from planting trees at new residential development to reduce the urban heat island effect.
Local Utility Programs – Electricity	E-3	<i>Not Applicable.</i> The Northside Specific Plan would not prevent the City from providing financial incentives for energy efficient, renewable energy and water conservation.
Renewable Energy Production on Public Property	E-4	<i>Not Applicable.</i> The Northside Specific Plan would not prevent the City from Large scale renewable energy installation on publicly owned property and in public rights of way.

Table 3.7-11. Northside Specific Plan Consistency with City of Riverside Climate Action Plan

RRG-CAP Measure	Measure Number	Northside Specific Plan Consistency
UCR Carbon Neutrality	E-5	<i>Not Applicable.</i> The Northside Specific Plan would not prevent the City from collaborating with UCR to achieve a carbon neutral campus.
RPU Technology Grants	E-6	<i>Not Applicable.</i> The Northside Specific Plan would not prevent the City from RPU grant programs to foster research, development and demonstration of innovative solutions to energy problems
Bicycle Infrastructure Improvements	T-1	<i>Consistent.</i> As discussed in Section 2.0 one of the Northside Specific Plan goals is to promote multi-modal travel by expanding mobility options in pedestrian and bicycle friendly corridors, including connectivity via open space areas. The Northside Specific Plan is designed for residents and visitors to move about the community safely and efficiently via various modes of transportation. Bike lanes and sidewalks would be developed along community corridors to provide easy access to nearby parks, amenities, and the trail system. In addition, more Riverside Transportation Authority bus stops would be placed throughout the SPA to better connect the residential land uses to parks, schools, and employment areas. Overall, the proposed improvements to the transportation network would reduce reliance on personal vehicles to access amenities within the SPA and strengthen the connection to the regional transit system, thus reducing mobile source emissions.
Bicycle Parking	T-2	<i>Consistent.</i> As discussed in Section 2.0 one of the Northside Specific Plan goals is to promote multi-modal travel by expanding mobility options in pedestrian and bicycle friendly corridors, including connectivity via open space areas. See also Bicycle Infrastructure Improvements consistency.
End of Trip Facilities	T-3	<i>Consistent.</i> As discussed in Section 2.0 one of the Northside Specific Plan goals is to promote multi-modal travel by expanding mobility options in pedestrian and bicycle friendly corridors, including connectivity via open space areas. The mobility plan would increase opportunities for multi-modal transportation within the SPA and connectivity to adjacent neighborhoods, thus reducing dependence on private vehicles and reducing carbon emissions associated with mobile sources).
Promotional Transportation Demand Management	T-4	<i>Not Applicable.</i> The Northside Specific Plan would not prevent the City from encouraging Transportation Demand Management strategies.
Traffic Signal Coordination	T-5	<i>Not Applicable.</i> The Northside Specific Plan would not prevent the City from incorporating technology to synchronize and coordinate traffic signals along local arterials.

Table 3.7-11. Northside Specific Plan Consistency with City of Riverside Climate Action Plan

RRG-CAP Measure	Measure Number	Northside Specific Plan Consistency
Density	T-6	<i>Consistent.</i> 1. As discussed in Section 2.0 one of the Northside Specific Plan goals is to develop a sustainable community through the integration of a mix of land uses, including a diversity of affordable residential uses, a vertical mix of uses within the key districts, and the location of residential in proximity of commercial and employment uses.
Mixed-Use Development	T-7	<i>Consistent.</i> As discussed in Section 2.0 one of the Northside Specific Plan goals is to develop a sustainable community through the integration of a mix of land uses, including a diversity of affordable residential uses, a vertical mix of uses within the key districts, and the location of residential in proximity of commercial and employment uses.
Pedestrian-Only Areas	T-8	<i>Consistent.</i> 1. As discussed in Section 2.0 one of the Northside Specific Plan goals is to improve the quality of life for residents, including through creating a sense of place, community based projects, revitalization of Ab Brown Sports Complex and redevelopment of the former Riverside Golf Course as a multi-use recreation space that includes cross country. The Northside Specific Plan includes approximately 233 acres of parkland, including a community park, potential for redevelopment of the Ab Brown Sports Complex, a network of trails, and restoration of the Springbrook Arroyo.
Limit Parking Requirements for New Development	T-9	<i>Not Applicable.</i> The Northside Specific Plan would not prevent the City from reducing requirements for vehicle parking in new development projects.
High Frequency Transit Service	T-10	<i>Not Applicable.</i> The Northside Specific Plan would not prevent the City from implementing bus rapid transit service in the subregion to provide alternative transportation options.
Voluntary Transportation Demand Management	T-11	<i>Not Applicable.</i> The Northside Specific Plan would not prevent the City from encouraging employers to create TDM programs for their employers
Accelerated Bike Plan Implementation	T-12	<i>Not Applicable.</i> The Northside Specific Plan would not prevent the City from accelerating the implementation of all or specified components of a jurisdiction’s adopted bike plan. See also response to Measure T-1 through T-3.
Fixed Guideway Transit	T-13	<i>Not Applicable.</i> The Northside Specific Plan would not prevent the City from completing a feasibility study and by 2025 Introduce a fixed route transit service in the jurisdiction. The Northside Specific Plan identifies a transit connector to Downtown Riverside, which could include a fixed guideway.

Table 3.7-11. Northside Specific Plan Consistency with City of Riverside Climate Action Plan

RRG-CAP Measure	Measure Number	Northside Specific Plan Consistency
Neighborhood Electric Vehicle Programs	T-14	<i>Not Applicable.</i> The Northside Specific Plan would not prevent the City from Implementing development requirements to accommodate Neighborhood Electric Vehicles and supporting infrastructure.
Subsidize Transit	T-15	<i>Not Applicable.</i> The Northside Specific Plan would not prevent the City from Increasing access to transit by providing free or reduced passes.
Bike Share Program	T-16	<i>Not Applicable.</i> The Northside Specific Plan would not prevent the City from creating nodes offering bike sharing at key locations throughout the City.
Car Share Program	T-17	<i>Not Applicable.</i> The Northside Specific Plan would not prevent the City from offering Riverside residents the opportunity to use car sharing to satisfy short-term mobility needs.
SB-743-Alternative to LOS	T-18	<i>Not Applicable.</i> The Northside Specific Plan would not prevent the City from Using SB 743 to incentivize development in the downtown and other areas served by transit
Alternative Fuel & Vehicle Technology and Infrastructure	T-19	<i>Consistent.</i> The Northside Specific Plan would not prevent the City from promoting the use of alternative fueled vehicles such as those powered by electric, natural gas, biodiesel, and fuel cells by Riverside residents and workers. Projects completed in accordance with the Northside Specific Plan would meet Title 24 CalGreen Building standards for electric vehicles.
Eco-Corridor / Green Enterprise Zone	T-20	<i>Not Applicable.</i> The Northside Specific Plan would not prevent the City from creating a geographically defined area(s) featuring best practices in sustainable urban design and green building focused on supporting both clean-tech and green businesses.
Water Conservation and Efficiency	W-1	<i>Not Applicable.</i> The Northside Specific Plan would not prevent the City from reducing per capita water use by 20% by 2020.
Yard Waste Collection	SW-1	<i>Not Applicable.</i> The Northside Specific Plan would not prevent the City from providing green waste collection bins community-wide.
Food Scrap and Compostable Paper Diversion	SW-2	<i>Not Applicable.</i> The Northside Specific Plan would not prevent the City from diverting food and paper waste from landfills by implementing commercial and residential collection program.
Local Food and Agriculture	A-1	<i>Not Applicable.</i> The Northside Specific Plan would not prevent the City from promoting local food and agricultural programs.
Urban Forest	A-2	<i>Not Applicable.</i> The Northside Specific Plan would not prevent the City from augmenting City's Urban and Community Forest Program to include an Urban Forest Management Plan.

Table 3.7-12. Northside Specific Plan Consistency with City of Colton Climate Action Plan

CAP Measure	Measure Number	Northside Specific Plan Consistency
Energy Efficiency Incentives and Programs to Promote Energy Efficiency for Existing Buildings	Energy 1	<i>Not Applicable.</i> The Northside Specific Plan would not prevent the City from promoting energy efficiency in existing residential buildings and non-residential buildings, and remove funding barriers to energy-efficiency improvements.
Outdoor Lighting Upgrades for Existing Development	Energy 2	<i>Not Applicable.</i> The Northside Specific Plan would not prevent the City from adopting outdoor lighting standards in the zoning ordinance to reduce electricity consumption above and beyond the requirements of AB 1109.
Solar Installations in New Housing Developments	Energy 4	<i>Not Applicable.</i> The Northside Specific Plan would not prevent the City from establishing a goal for solar installations on new homes to be achieved before 2020 (CAPCOA 2009, 2010).
Solar Installations for Existing Commercial/Industrial Buildings	Energy 8	<i>Not Applicable.</i> The Northside Specific Plan would not prevent the City from establishing a goal for solar installations on existing commercial/industrial buildings to be achieved before 2020 (CAPCOA 2009, 2010).
Improve Transit Travel Time and Connectivity (Regional)	On Road 1.1	<i>Consistent.</i> The mobility plan would increase opportunities for multi-modal transportation within the SPA and connectivity to adjacent neighborhoods, thus reducing dependence on private vehicles and reducing carbon emissions associated with mobile sources.
Other Transit Improvements (Regional)	On Road 1.2	
Public Transit Funding (Regional)	On Road 1.3	<i>Not Applicable.</i> The Northside Specific Plan would not prevent the City from implementing public transit funding.
Adopt Land Use Patterns to Favor Transit-Oriented Development (Local Regional)	On Road 1.4	<i>Consistent.</i> As discussed in Section 2.0 one of the Northside Specific Plan goals is to develop a sustainable community through the integration of a mix of land uses, including a diversity of affordable residential uses, a vertical mix of uses within the key districts, and the location of residential in proximity of commercial and employment uses.
Nonmotorized Zones (Local)	On Road 1.5	<i>Consistent.</i> As discussed in Section 2.0 one of the Northside Specific Plan goals is to improve the quality of life for residents, including through creating a sense of place, community based projects, revitalization of Ab Brown Sports Complex and redevelopment of the former Riverside Golf Course as a multi-use recreation space that includes cross country. The Northside Specific Plan includes approximately 233 acres of parkland, including a community park, potential for redevelopment of the Ab Brown Sports Complex, a network of trails, and restoration of the Springbrook Arroyo.

Table 3.7-12. Northside Specific Plan Consistency with City of Colton Climate Action Plan

CAP Measure	Measure Number	Northside Specific Plan Consistency
Traffic Calming (Local)	On Road 1.6	<i>Consistent.</i> As discussed in Section 2.0 one of the Northside Specific Plan goals is to promote multi-modal travel by expanding mobility options in pedestrian and bicycle friendly corridors, including connectivity via open space areas. The Northside Specific Plan is designed for residents and visitors to move about the community safely and efficiently via various modes of transportation. Bike lanes and sidewalks would be developed along community corridors to provide easy access to nearby parks, amenities, and the trail system. In addition, more Riverside Transportation Authority bus stops would be placed throughout the SPA to better connect the residential land uses to parks, schools, and employment areas. Overall, the proposed improvements to the transportation network would reduce reliance on personal vehicles to access amenities within the SPA and strengthen the connection to the regional transit system, thus reducing mobile source emissions.
Traffic Signal Synchronization (Local)	On Road 1.7	<i>Not Applicable.</i> The Northside Specific Plan would not prevent the City from Improving travel speed by enhanced signal synchronization.
Parking Policy (Local)	On Road 1.8	<i>Not Applicable.</i> The Northside Specific Plan would not prevent the City from designating a percentage of downtown parking spaces for ride-sharing vehicles, while reducing the available downtown parking spaces for private vehicles (CAPCOA 2009, 2010).
Trip Reduction Ordinance (Local)	On Road 1.9	<i>Not Applicable.</i> The Northside Specific Plan would not prevent the City from Implementing a voluntary trip reduction ordinance that promotes the preparation and implementation of a trip reduction plan (TRP).
Employer Provided Fringe Benefits (Local)	On Road 1.10	<i>Not Applicable.</i> The Northside Specific Plan would not prevent the City from encouraging use of telecommuting and alternative work schedules for employees. Encourage other employer benefits to reduce VMT, including a Guaranteed Ride Home Program.
Pedestrian Bicycle Lanes (Local/Regional)	On Road 1.11	<i>Consistent.</i> See response to On Road 1.12.
Pedestrian and Bicycle Network Improvements (Local/Regional)	On Road 1.12	<i>Consistent.</i> As discussed in Section 2.0 one of the Northside Specific Plan goals is to promote multi-modal travel by expanding mobility options in pedestrian and bicycle friendly corridors, including connectivity via open space areas. The Northside Specific Plan is designed for residents and visitors to move about the community safely and efficiently via various modes of transportation. Bike lanes and

Table 3.7-12. Northside Specific Plan Consistency with City of Colton Climate Action Plan

CAP Measure	Measure Number	Northside Specific Plan Consistency
		sidewalks would be developed along community corridors to provide easy access to nearby parks, amenities, and the trail system. In addition, more Riverside Transportation Authority bus stops would be placed throughout the SPA to better connect the residential land uses to parks, schools, and employment areas. Overall, the proposed improvements to the transportation network would reduce reliance on personal vehicles to access amenities within the SPA and strengthen the connection to the regional transit system, thus reducing mobile source emissions.
Alternative Fuel Infrastructure (Local/Regional)	On Road 1.13	<i>Not Applicable.</i> The Northside Specific Plan would not prevent the City from promoting the necessary facilities and infrastructure to encourage the use of privately owned low- or zero-emission vehicles such as electric vehicle charging facilities and conveniently locate alternative fueling stations. Convert public transit, street sweeping, and refuse fleets to alternative fuels and provide supporting infrastructure.
School Programs and Outreach (Local)	On Road 1.14	<i>Not Applicable.</i> The Northside Specific Plan would not prevent the City from collaborating with local public schools districts to expand school bus services and routes. Encourage ridesharing programs in private schools to match parents by geographical location for student transport.
“Smart Bus” Technologies (Regional)	On Road 2	<i>Not Applicable.</i> The Northside Specific Plan would not prevent the City from collaborating with Omnitrans to implement “Smart Bus” technology, global positioning system (GPS), and electronic displays at all transit stops by 2020 to provide customers with “real-time” arrival and departure time information (CAPCOA 2009).
Electric-Powered Construction Equipment	Off Road Equipment 1	<i>Not Applicable.</i> The Northside Specific Plan would not prevent the City from establishing a goal such that a percentage of construction equipment utilizes electric equipment (CAPCOA 2010). Potential goals might be to require 5% to 25% of equipment on annual projects occurring within the cities to be electrically-powered. Projects implemented under the Northside Specific Plan will meet all electric-powered construction equipment requirements as applicable at the time of construction.
Idling Ordinance	Off Road Equipment 2	<i>Consistent.</i> The Northside Specific Plan would not prevent the City from adopting an ordinance that limits idling time for heavy-duty construction equipment beyond CARB or local air district regulations and if not already required as part of

Table 3.7-12. Northside Specific Plan Consistency with City of Colton Climate Action Plan

CAP Measure	Measure Number	Northside Specific Plan Consistency
		<p>CEQA mitigation. Recommended idling limit is 3 minutes (CAPCOA 2010). As part of permitting requirements or city contracts, encourage contractors to submit a construction vehicle management plan that includes such things as idling time requirements; requiring hour meters on equipment; and documenting the serial number, horsepower, age, and fuel of all onsite equipment. California state law currently requires all off-road equipment fleets to limit idling to no more than 5 minutes. As described in MM-AQ-1. During construction, vehicles in loading and unloading queues shall not idle for more than 5 minutes, and shall turn their engines off when not in use to reduce vehicle emissions. However, projects implemented under the Northside Specific Plan will meet all construction equipment requirements as applicable at the time of construction.</p>
Electric Landscaping Equipment	Off Road Equipment 3	<p><i>Not Applicable.</i> The Northside Specific Plan would not prevent the City from adopting an ordinance that reduces gasoline-powered landscaping equipment use and/or reduces the number and operating time of such equipment. Require 75% of the cities' landscaping equipment be electric by 2020 and 100% by 2030 (CAPCOA 2010).</p>
Tree Planting Programs	Land Use 1	<p><i>Not Applicable.</i> The Northside Specific Plan would not prevent the City from establishing a citywide tree planting goal or tree preservation goal. Possible implementation mechanisms might include a requirement to account for trees removed and planted as part of new construction and/or establishing a goal and funding source for new trees planted on City property.</p>
Increased Waste Diversion	Waste 1	<p><i>Not Applicable.</i> The Northside Specific Plan would not prevent the City from exceeding the waste diversion goal (50%) recommended by Assembly Bill 939 and CALGreen by adopting citywide waste goals of at least 75% of waste diversion (CAPCOA 2010).</p>
Methane Recovery	Waste Water 1	<p><i>Not Applicable.</i> The Northside Specific Plan would not prevent the City from working with the IEUA or other local wastewater treatment providers (small or large to identify funding and cooperating agencies for establishing methane recovery systems at all WWTPs that service San Bernardino Partnership cities residents by 2020, as appropriate</p>

Table 3.7-12. Northside Specific Plan Consistency with City of Colton Climate Action Plan

CAP Measure	Measure Number	Northside Specific Plan Consistency
Require Adoption of the Voluntary CALGreen Water Efficiency Measures for New Construction	Water 1	<i>Consistent.</i> Project developed in accordance with the Northside Specific Plan will meet applicable CALGreen Standards for water efficiency measures for new construction.
Encourage Water-Efficient Landscaping Practices	Water 3	<i>Not Applicable.</i> The Northside Specific Plan would not prevent the City from encouraging water-efficient landscaping practices. Adopt a landscaping water conservation ordinance that exceeds the requirements in the Model Landscape Ordinance (AN1881).
Senate Bill X7-7 The Water Conservation Act of 2009	Water 4	<i>Not Applicable.</i> The Northside Specific Plan would not prevent the City from increasing conservation to achieve a statewide goal of a 20% reduction in urban per capita use by December 31, 2020 (referred to as the “20X2020 goal”).
GHG Performance Standard for New Development	PS-1	<i>Consistent.</i> The City will adopt a GHG Performance Standard for New Development, requiring a 25 percent reduction in new development emissions within the cities. As described in Section 3.7, the Northside Specific Plan results in a net reduction of GHG emissions compared to the Baseline Buildout in 2040. Individual projects implemented under the Northside Specific Plan may vary as identified in PS-1.

Table 3.7-13. Specific Plan Consistency with County of Riverside Climate Action Plan

CAP Measure	Measure Number	Specific Plan Consistency
Alternative Transportation Options	R2-T1	<i>Consistent.</i> As discussed in Section 2.0 one of the Northside Specific Plan goals is to promote multi-modal travel by expanding mobility options in pedestrian and bicycle friendly corridors, including connectivity via open space areas. The Northside Specific Plan is designed for residents and visitors to move about the community safely and efficiently via various modes of transportation. Bike lanes and sidewalks would be developed along community corridors to provide easy access to nearby parks, amenities, and the trail system. In addition, more Riverside Transportation Authority bus stops would be placed throughout the SPA to better connect the residential land uses to parks, schools, and employment areas. Overall, the proposed improvements to the transportation network would reduce reliance on personal vehicles to access

Table 3.7-13. Specific Plan Consistency with County of Riverside Climate Action Plan

CAP Measure	Measure Number	Specific Plan Consistency
		amenities within the SPA and strengthen the connection to the regional transit system, thus reducing mobile source emissions.
Adopt and Implement a Bicycle Master Plan to Expand Bike Routes around the County Bicycle-friendly roads are crucial to promoting bicycle use as a transportation method. People tend to bicycle if routes are available to separate them from motor vehicles and bicyclists' safety can be ensured	R2-T2	<i>Not Applicable.</i> The Northside Specific Plan would not prevent the County from adopting and Implement a Bicycle Master Plan to Expand Bike Routes around the County. See also response to Measure R2-T1.
Ride-Sharing and Bike-to-Work Programs	R2-T3	<i>Not Applicable.</i> The Northside Specific Plan would not prevent the County from promoting ride-sharing and facilitate air district incentives for ride-sharing or for providing reserved preferential parking spaces for ride-sharing, carpooling, and ultra-low- or zero-emission vehicles. Furthermore, the Northside Specific Plan would not prevent the County from zoning code updates that requires businesses of a certain size to provide facilities such as bicycle racks.
Electrify the Fleet Hybrid electric vehicles, plug-in hybrid electric vehicles, and EVs produce lower emissions than conventional vehicles.	R2-T4	<i>Consistent.</i> Project developed in accordance with the Northside Specific Plan will meet applicable Title 24 Standards for e-chargers.
California Building Code Title 24 California's building efficiency standards are updated regularly to incorporate new energy efficiency technologies	R1-EE1	<i>Consistent.</i> Project developed in accordance with the Northside Specific Plan will meet applicable Title 24 Standards for California's building efficiency standards at the time of construction.
Energy Efficiency Training, Education, and Recognition in the Residential Sector Opportunities for residents to improve energy efficiency in their homes include changes to their behaviors and physical modifications or improvements to their homes	R2-EE1	<i>Not Applicable.</i> The Northside Specific Plan would not prevent the County from educating the community members about behavioral and technological changes that can increase energy efficiency.
Increase Community Participation in Existing Energy-Efficiency Programs	R2-EE2	<i>Not Applicable.</i> The Northside Specific Plan would not prevent the County from partnering with the Southern California Association of Governments (SCAG), Western Riverside Council of Governments (WRCOG), SCE, and SoCalGas for outreach events, such as annual energy-efficiency fair.
Home Energy Evaluations	R2-EE3	<i>Not Applicable.</i> The Northside Specific Plan would not prevent the County from promoting SCE energy audits program for residents within the SCE service area and the Home Energy Saver Do It Yourself online energy audits for the IID service area.

Table 3.7-13. Specific Plan Consistency with County of Riverside Climate Action Plan

CAP Measure	Measure Number	Specific Plan Consistency
Residential Home Energy Renovations	R2-EE4	<i>Not Applicable.</i> The Northside Specific Plan would not prevent the County from promoting existing home energy-renovation programs and promoting financing programs for home upgrades.
Exceed Energy Efficiency Standards in New Residential Units	R2-EE5	<i>Consistent.</i> Project implemented in accordance of the Northside Specific Plan will comply with State Title 24 energy efficiency requirements on new residential buildings, such as zero net energy homes that require all new residential construction projects to achieve zero net-energy use by 2020.
Energy Efficiency Training, Education and Recognition in the Commercial Sector	R2-EE6	<i>Not Applicable.</i> The Northside Specific Plan would not prevent the County from energy efficiency training, education and recognition in the commercial sector.
Increase Business Participation in Existing Energy Efficiency Programs	R2-EE7	<i>Not Applicable.</i> The Northside Specific Plan would not prevent the County from partnering with SCAG, WRCOG, SCE, and SoCalGas for outreach events.
Non-Residential Building Energy Audits	R2-EE8	<i>Not Applicable.</i> The Northside Specific Plan would not prevent the County from promoting the SCE energy audit program for residents within the SCE service area and the Home Energy Saver Do It Yourself online energy audits for the IID service area.
Non-Residential Building Retrofits	R2-EE9	<i>Not Applicable.</i> The Northside Specific Plan would not prevent the County from promoting existing non-residential building retrofits programs.
Energy Efficiency Enhancement of Existing and New Infrastructure	R2-EE10	<i>Not Applicable.</i> The Northside Specific Plan would not prevent the County from retrofitting existing traffic signals with high-efficiency Light Emitting diodes (LEDs) and use of high-efficiency LEDs for all new traffic signals.
Exceed Energy Efficiency Standards in New Commercial Units	R2-EE11	<i>Consistent.</i> Projects implemented in accordance of the Northside Specific Plan will comply with State Title 24 energy efficiency requirements on new commercial units.
Renewable Portfolio Standard Senate Bills (SBs) 1075 (2002) and 107 (2006) created the State's Renewable Portfolio Standard (RPS), and SB 100 (2018) further requires the energy providers to derive 33 percent, 60 percent, and 100 percent of electricity from qualified renewable sources by 2020, 2030, and 2045, respectively	R1-CE1	<i>Not Applicable.</i> The Northside Specific Plan would not prevent the County from acquiring energy consistent with the RPS.

Table 3.7-13. Specific Plan Consistency with County of Riverside Climate Action Plan

CAP Measure	Measure Number	Specific Plan Consistency
Clean Energy Clean energy includes energy efficiency and clean energy supply options such as highly efficient combined heat and power as well as renewable energy sources.	R2-CE1	<i>Consistent.</i> Projects implemented in accordance of the Northside Specific Plan will comply the solar panel installation requirements applicable at the time of construction.
Community Choice Aggregation Program Assembly Bill 117, which was signed into law in 2002, allows California cities and counties to either individually or collectively supply electricity to customers within their borders through the establishment of a Community Choice Aggregation (CCA) program	R2-CE2	<i>Not Applicable.</i> The Northside Specific Plan would not prevent the County from evaluating the potential for implementing a CCA program to meet GHG reduction targets.
Tree Planting for Shading and Energy Saving	R2-L1	<i>Not Applicable.</i> The Northside Specific Plan would not prevent the County from working with the community to support nonprofit tree-planting groups within the County consisting of volunteers to plant and care for trees correctly and safely and develop and promote a County tree-planting program for new development at plan check.
Light Reflecting Surfaces for Energy Saving	R2-L2	<i>Consistent.</i> Projects implemented in accordance of the Northside Specific Plan will comply with State Title 24 requirements cool roofs and cool pavements at the time of construction.
Renewable Portfolio Standard Related to Water Supply and Conveyance	R1-W1	<i>Not Applicable.</i> The Northside Specific Plan would not prevent the County from increasing electricity production from eligible renewable power sources to 33 percent by 2020, 60 percent by 2030, and 100 percent by 2045.
Water Efficiency through Enhanced Implementation of Senate Bill X7-7 SB X7-7, or The Water Conservation Act of 2009, requires all water suppliers to increase water use efficiency.	R2-W1	<i>Not Applicable.</i> The Northside Specific Plan would not prevent the County from providing general water efficiency information and links to water district conservation webpages on the County's website and implementing the low-irrigation landscaping requirements.
Exceed Water Efficiency Standards	R2-W2	<i>Not Applicable.</i> The Northside Specific Plan would not prevent the County from Support water districts in direct outreach to homeowner associations, businesses, and other community groups to inform them on water efficiency standards. Promoting recycled or grey water for community uses such as residential landscaping. Promoting rainwater harvesting rebates and demonstrations.

Table 3.7-13. Specific Plan Consistency with County of Riverside Climate Action Plan

CAP Measure	Measure Number	Specific Plan Consistency
Reduce Waste to Landfills	R2-S1	<i>Not Applicable.</i> The Northside Specific Plan would not prevent the County from outreach to the community to promote waste recycling and diversion. Add additional recycling containers in public places. Comply with Statewide waste reduction, recycling, and composting requirements. Promote community clean-up days by providing commercial containers for trash and recycling.

Based on the analysis in Table 3.7-8 through 3.7-13, the Northside Specific Plan would be consistent with the applicable policies and measures of the City of Riverside, City of Colton and County of Riverside General Plans and CAPs.

As discussed in Section 3.7.4, total net Specific Plan emissions (after subtracting emissions associated with the existing land uses), including operation and amortized construction, would be approximately -27,866 MT CO<sub>2</sub>e per year. This negative value represents a net reduction of CO<sub>2</sub>e from the baseline emissions. As such, the Northside Specific Plan (without mitigation) would not generate GHG emissions that would interfere with the implementation of GHG reduction goals for 2030 and 2050. In addition, the Northside Specific Plan would be consistent with all strategies contained in the SCAG 2016 RTP/SCS; and it would be consistent with the general plans and CAPs all three jurisdictions. The Northside Specific Plan is subject to statewide mandatory energy requirements as outlined in Title 24, Part 6, of the California Code of Regulations. Title 24, Part 11, contains additional energy measures that are applicable to the Northside Specific Plan under CALGreen. These energy measures have the co-benefit of GHG emission reductions. Prior to Specific Plan approval, the applicant would ensure that the Northside Specific Plan would meet Title 24 requirements applicable at that time, as required by state regulations through the plan review process (CM-AQ-3). Therefore, the Northside Specific Plan would not conflict with plans, policies, or regulations adopted for the purpose of reducing GHG emissions, and as such, impacts would be **less than significant**.

### 3.7.5 Mitigation Measures

Impacts relating to GHG emissions would be less than significant and no mitigation would be necessary.

### 3.7.6 Level of Significance After Mitigation

Impacts related to GHG emissions would be less than significant, and no mitigation is required.

## 3.8 Hazards and Hazardous Materials

This section describes the existing hazardous materials conditions of the project area and vicinity, identifies associated regulatory requirements, evaluates potential impacts, and identifies mitigation measures related to implementation of the proposed project. Information utilized for this section includes the project-specific Northside Specific Plan Baseline Opportunities & Constraints Analysis (Appendix B), as well as publicly available database searches and documents that are cited within the text below.

### 3.8.1 Existing Conditions

The 1,700-acre Northside Specific Plan Area (SPA) is located within the jurisdictional boundaries of the City of Riverside (City), the City of Colton, and the County of Riverside (County). In summary, the existing land uses include a mix of residential, commercial, office, business/office park, light industrial, and recreational uses. These existing uses include routine transport, use, and disposal of hazardous materials in accordance with regulations (see Section 3.8.2 below).

#### Schools

Currently, there are two schools located within the SPA: Patricia Beatty Elementary School, 4261 Latham Street, Riverside, California, located within Subarea 15, and Fremont Elementary School, 1925 Orange Street, Riverside, California, located within Subarea 14. The schools are shown on Figure 3.8-1, Site Hazards. Encore High School for the Arts, 3800 Main Street, Riverside, California, is located approximately 0.23 miles south of the southern boundary of the SPA. There are no other public schools located within 0.25 miles of the SPA boundary.

#### Cortese List

California Government Code Section 65962.5 requires that information regarding environmental impacts of hazardous substances and wastes be maintained and provided at least annually to the Secretary for Environmental Protection. Commonly referred to as the Cortese List, this information must include the following: sites impacted by hazardous wastes, public drinking water wells that contain detectable levels of contamination, underground storage tanks (USTs) with unauthorized releases, solid waste disposal facilities from which there is migration of hazardous wastes, and all cease and desist and cleanup and abatement orders. While the Cortese List is no longer maintained as a single list, the following databases provide information that meet the Cortese List requirements:

1. List of Hazardous Waste and Substances sites from Department of Toxic Substances Control (DTSC) Envirostor database (Health and Safety Code Sections 25220, 25242, 25356, and 116395)
2. List of Open Active Leaking Underground Storage Tank (LUST) Sites from the State Water Resources Control Board (SWRCB) GeoTracker database (Health and Safety Code Section 25295)
3. List of solid waste disposal sites identified by the SWRCB with waste constituents above hazardous waste levels outside the waste management unit (Water Code Section 13273 subdivision (e) and California Code of Regulations Title 14 Section 18051))
4. List of “active” Cease and Desist Orders and Cleanup and Abatement Orders from the SWRCB (Water Code Sections 13301 and 13304)
5. List of hazardous waste facilities subject to corrective action pursuant to Section 25187.5 of the Health and Safety Code, identified by DTSC

Dudek conducted a search of the online databases that provide information on Cortese List sites within the SPA. Table 3.8-1 contains a summary of sites identified within the SPA that meet the Cortese List description. The sites are also shown on Figure 3.8-1.

**Table 3.8-1. Cortese List Sites within SPA**

Site Name and Address	SPA Subarea	Comments
Alark Hard Chrome 2775 Main Street	11	This 0.23-acre facility is a former industrial machining and electroplating facility which operated from 1971 to 1985, and is now a Federal Superfund Site. The primary contaminants of concern are hexavalent chromium in soil and groundwater, and trichloroethylene in groundwater and soil vapor (Amec 2016). Currently, site access is restricted and site characterization is still underway (EPA 2019).
Snyder Trust Property 2511 Northbend Street	12	The site is currently vacant, undeveloped land. Pesticides were applied to a former wooden fence that surrounded the western portion of the site, resulting in pesticide contamination in surface soils. Excavation in the area was conducted, but remaining contamination (chlordane, dieldrin, heptachlor epoxide, 4,4'-DDE, and 4,4'-DDT) necessitated a deed restriction for the site. The deed restriction and land use covenant (Covenant; County of Riverside 2007), prohibits the following uses: residential, hospital, public or private school, day care center, any permanently occupied human habitation other than commercial or industrial purposes, raising of livestock, drilling for drinking water. In addition, notice must be given to DTSC prior to any soil disturbance (as defined in 4.02(a) of the Covenant); a soil management plan must be prepared; and excavated soils must be properly managed.

The Colton Landfill lies approximately 0.68 miles north of the SPA. There are two Cease and Desist Orders/Cleanup Abatement Orders for the Colton Landfill, which were issued in July 1991 and April 1998, for violations of the waste discharge requirements. The Colton Landfill is a non-hazardous solid waste landfill. Quarterly monitoring is ongoing to meet compliance with the waste discharge requirements. The most recent monitoring report (Geosyntec 2019) indicates that volatile organic compounds were not detected in the downgradient monitoring well. It is not expected that the conditions at this site would impact the environmental conditions within the project area.

**Online Regulatory Records Search**

The following sites are LUST sites that have been closed by the overseeing regulatory agency. While these sites do not fall under the Cortese List requirement, they still affect the existing conditions because they were closed with contamination remaining in place. See Table 3.8-2 for details. Sites are also shown on Figure 3.8-1.

Table 3.8-2. Hazardous Material Sites within SPA

Site Name and Address	SPA Subarea	Comments
Form Print Company 2682 Market Street	11	This site had a leaking underground gasoline tank that was removed and contaminated soils were excavated in 1992. Groundwater contamination was identified and monitored from 1996 until 2000. One monitoring well continued to show gasoline contamination in groundwater, but other wells did not show evidence of contamination. The site received closure with contamination left in place (277 micrograms per liter [ $\mu\text{g/L}$ ] gasoline, 195 $\mu\text{g/L}$ benzene, 37.6 $\mu\text{g/L}$ xylene, and 102 $\mu\text{g/L}$ methyl tert-butyl ether) (County of Riverside 2000).
Sea Mor Food Company 2586 Main Street	11	This site had a leaking underground petroleum tank that was removed in 1997. The site underwent soil vapor extraction to remove residual petroleum hydrocarbons. Residual petroleum hydrocarbons remain in the soil and soil vapor; however, the SWRCB determined that soil vapor concentrations do not appear to be a threat to human health, and the residual soil concentrations will likely continue to degrade. Due to the fact that the site was an orphan site (no fiscally responsible owner), the LUST file was closed with remaining recoverable petroleum hydrocarbons in the soil (RWQCB 2011).
G W Singletary Property (aka former Texaco Service Station) 1115 West La Cadena Avenue	10	This is currently an inactive gasoline station, which was closed in 1997. From 2010 to 2013 the site underwent soil vapor extraction and air sparging to remove gasoline contamination. In 2014, closure of the site was requested under the “Low Threat Closure Policy” criteria. While the SWRCB staff determined that additional remediation could occur, the site was granted closure because it met Low Threat Closure Policy criteria (RWQCB 2014).
E-Z Serve No. 100785 350 Stephens Avenue	10	This is an active gasoline service station. A LUST case was closed in 2009 under the Low Threat Closure Policy, allowing groundwater contamination to remain in place (RWQCB 2009).
Amerigas Propane 333 W La Cadena Drive	10	Four LUSTs were decommissioned in 1996. Vapor extraction and groundwater monitoring was conducted on the site from 1999 through 2003. The regulatory agency granted site closure in 2004 (RWQCB 2004).
Niagra Drinking Water 4223 Fairgrounds Street	15	One 10,000-gallon gasoline UST was removed in 1999. Contaminated soils and groundwater were identified, but no active remedial efforts took place. Groundwater monitoring did not reveal ongoing contamination, and the site received closure in 2002 (RWQCB 2002).
Greenwaste – Inland Empire Com S. Old Pellisier Road	1	This is a former solid waste facility with limited available information. The site is now closed, and the land is vacant. Little information is available on the environmental condition of the property and former activities of the solid waste facility; therefore there is a potential for soil, groundwater, and soil vapor contamination at the site.

In addition to the Cortese List databases, Dudek consulted available online databases that provide environmental information on facilities and sites in the State of California. These databases include the California Environmental Protection Agency (CalEPA) Regulated Site Portal; National Pipeline Mapping System; and California Geologic Energy Management Division (CalGEM) online well finder.

**CalEPA Site Portal:** Multiple sites were identified on the CalEPA Site Portal. In general, these listings are related to tracking and permitting the use, storage, and disposal of hazardous materials. The listings are for administrative and permitting purposes and do not necessarily indicate a release of hazardous materials to the environment. Hazardous materials release sites identified were also identified on the GeoTracker or EnviroStor databases, and are discussed in the sections above. The sites identified on the CalEPA Site Portal are generally located within subareas that are currently zoned commercial, industrial, or mixed use.

**National Pipeline Mapping System:** Approximately 2.3 miles of an 11.11-mile-long petroleum product (non-high volatile liquid) pipeline crosses through the northern portion of the SPA, generally following the northern boundary of the SPA (see Figure 3.8-1). The active pipeline is owned by SFPP LP.

**CalGEM:** No oil and gas well were identified on CalGEM on or within 1 mile of the SPA.

### ***Hazardous Building Materials***

The U.S. Consumer Product Safety Commission banned the use of asbestos in wall and joint compounds in 1977. The U.S. Environmental Protection Agency (EPA) released a partial ban on asbestos-containing materials (ACM) in 1989, but a full ban on the use and marketing of ACM did not occur until April 2019. Federal lead-based paint reduction laws were enacted in the 1970s. Therefore, buildings within the SPA that were constructed prior to the 1980s may contain hazardous building materials, such as lead-based paint and asbestos.

### ***Historic Agricultural Use***

The Pellissier Ranch is located in the northern portion of the SPA within the City of Colton, in Specific Plan Subareas 1 and 2. Based on a review of historic aerial photographs (NETROnline 2019), agricultural use was ongoing from at least the 1940s until approximately the 1990s. As with any agricultural property, there is a potential for pesticide residues, including chlorinated compounds and metals, to remain in soil.

### ***Wildfire Hazards***

The northern portion of the SPA, which lies within the City of Colton and San Bernardino County, is located within multiple Fire Hazards Severity Zones (FHSZ) (CAL FIRE 2019). The majority of this area is located within a Moderate FHSZ; however the southeastern corner along Pellissier Road and Old Pellissier Road are designated Very High and High FHSZ. The area surrounding the intersection of S. Riverside Avenue, Key Street, and Pellissier Road is designated Urban Unzoned and is not in a FHSZ. The Very High FHSZ extends northeast beyond the SPA, encompassing most of the area between La Cadena Drive and the Santa Ana River. The SPA located within these FHSZ falls within the Local Responsibility Area, which is under the jurisdiction of the City of Colton. Additional information regarding wildfire hazards is provided in Section 3.18 of this environmental impact report.

### ***Airports***

The Flabob Airport at 4130 Mannes Avenue, is located 1.59 miles southwest of the SPA in Riverside, California. According to the Airport Land Use Compatibility Plan for Riverside County (County of Riverside 2004), the airport influence area for the Flabob Airport approaches the SPA from the south, but does not cross into the SPA.

The March Air Reserve Base is located approximately 7.5 miles southeast of the SPA. According to the March Air Reserve Base/Inland Port Airport Joint Land Use Study (Mead & Hunt 2010) the Military Outer Horizontal Surface Airspace Protection Zone crosses into the southeastern portion of the SPA, near the intersection of Interstate 215 and Highway 91. This outer protection zone is intended to identify areas for airspace protection, and aircraft may pass over these areas when flying to and from the airport. Airspace protection requirements for military installations differ from those for civilian facilities, and are defined in Part 77 of the Federal Aviation Regulations. In addition, the area within the SPA east of I-215 is within the Airport Influence Area and within Zone E. There are no residential density limits in this area, but there are limits on potential flight hazards (such as very tall structures and uses that attract birds) and Real Estate Disclosure requirements.

There are no other airports within 2 miles of the SPA, and the SPA does not fall within the boundaries of any other airport land use areas.

### 3.8.2 Relevant Plans, Policies, and Ordinances

Several federal, state, and local plans, policies, and regulations control the storage, use, handling, disposal, and transport of hazardous materials and waste in order to protect public health and the environment. Additional regulations exist to protect workers on the job, and still others serve to formulate emergency and evacuation procedures. The regulations applicable to the proposed project are discussed in this section.

#### Federal

##### *U.S. Environmental Protection Agency*

##### **Title 40 U.S. Code (USC), Chapter 1, Subchapter I, Parts 260-265 – Solid Waste Disposal Act/Federal Resource Conservation and Recovery Act of 1976**

The Solid Waste Disposal Act, as amended and revised by the Resource Conservation and Recovery Act, establishes requirements for the management of solid wastes (including hazardous wastes), landfills, USTs, and certain medical wastes. The act also addresses program administration; implementation and delegation to the states; enforcement provisions and responsibilities; and research, training, and grant funding. Provisions are established for the generation, storage, treatment, and disposal of hazardous waste, including requirements addressing generator record keeping, labeling, shipping paper management, placarding, emergency response information, training, and security plans.

##### **Title 40 USC, Chapter 1, Subchapter I, Part 273 – Universal Waste**

This regulation governs the collection and management of widely generated waste, including batteries, pesticides, mercury-containing equipment, and bulbs. This regulation streamlines the hazardous waste management standards and ensures that such waste is diverted to the appropriate treatment or recycling facility.

##### **Title 40 USC, Chapter 1, Subchapter D, Part 112 – Oil Pollution Prevention**

Oil Pollution Prevention regulations require the preparation of a Spill Prevention, Control, and Countermeasure (SPCC) Plan if oil is stored in excess of 1,320 gallons in aboveground storage (or have a buried capacity of 42,000 gallons). SPCC regulations place restrictions on the management of petroleum materials and, therefore, have some bearing on hazardous materials management.

### **Title 40 USC, Chapter 1, Subchapter C, Part 61 – National Emission Standards for Hazardous Air Pollutants, Subpart M – National Emission Standard for Asbestos**

This regulation established National Emission Standards for Hazardous Air Pollutants and names ACM as one of these materials. ACM use, removal, and disposal are regulated by EPA under this law. In addition, notification of friable ACM removal prior to a proposed demolition project is required by this law.

### **Title 42 U.S. Code of Federal Regulations, Chapter 116 – Emergency Planning and Community Right-to-Know Act**

The Emergency Planning and Community Right-to-Know Act provides for public access to information about chemical hazards. The act and its regulations included in Title 40 USC Parts 350–372 establish four types of reporting obligations for facilities storing or managing specified chemicals: emergency planning, emergency release notification, hazardous chemical storage reporting requirements, and toxic chemical release inventory. The EPA maintains a database, termed the Toxic Release Inventory, which includes information on reportable releases to the environment.

### **Title 15 USC, Chapter 53, Subchapter I, Section 2601 et seq. – Toxic Substances Control Act of 1976**

The Toxic Substances Control Act of 1976 empowers the EPA to require reporting, record-keeping, and testing, as well as place restrictions on the use and handling of chemical substances and mixtures. This regulation phased out the use of asbestos and ACM in new building materials and set requirements for the use, handling, and disposal of ACM as well as for lead-based paint waste. USEPA has also established National Emission Standards for Hazardous Air Pollutants, which govern the use, removal, and disposal of ACM as a hazardous air pollutant and mandate the removal of friable ACM before a building is demolished and require notification before demolition. In addition to asbestos, ACM, and lead-based paint requirements, this regulation also banned the manufacturing of polychlorinated biphenyls and sets standards for the use and disposal of existing polychlorinated biphenyl-containing equipment or materials.

### **Regional Screening Levels**

The EPA provides regional screening levels (RSLs) for chemical contaminants to provide comparison values for residential and commercial/industrial exposures to soil, air, and tap water (drinking water). RSLs are available on the EPA's website and provide a screening level calculation tool to assist risk assessors, remedial project managers, and others involved with risk assessment and decision-making. RSLs are also used when a site is initially investigated to determine if potentially significant levels of contamination are present to warrant further investigation. In California, the DTSC Human and Ecological Risk Office (HERO) incorporated the EPA RSLs into the HERO human health risk assessment (HHRA). HERO created HHRA Note 3, which incorporates HERO recommendations and DTSC-modified screening levels (DTSC-SLs) based on review of the EPA RSLs. The DTSC-SLs should be used in conjunction with the EPA RSLs to evaluate chemical concentrations in environmental media at California sites and facilities.

### **U.S. Department of Labor, Occupational Safety and Health Administration**

### **Title 29 USC, Part 1926 et seq. – Safety and Health Regulations for Construction**

These standards require employee training; personal protective equipment; safety equipment; and written procedures, programs, and plans for ensuring worker safety when working with hazardous materials or in hazardous work environments during construction activities, including renovations and demolition projects and the handling,

storage, and use of explosives. These standards also provide rules for the removal and disposal of asbestos, lead, lead-based paint, and other lead materials. Although intended primarily to protect worker health and safety, these requirements also guide general facility safety. This regulation also requires that an engineering survey is prepared prior to demolition.

### **Title 29 USC, Part 1910 et seq. – Occupational Safety and Health Standards**

Under this regulation, facilities that use, store, manufacture, handle, process, or move hazardous materials are required to conduct employee safety training, inventory safety equipment relevant to potential hazards, have knowledge about safety equipment use, prepare an illness prevention program, provide hazardous substance exposure warnings, prepare an emergency response plan, and prepare a fire prevention plan.

### ***U.S. Department of Transportation***

#### **Title 49 USC, Part 172, Subchapter C – Shipping Papers**

The U.S. Department of Transportation established standards for the transport of hazardous materials and hazardous wastes. The standards include requirements for labeling, packaging, and shipping hazardous materials and hazardous wastes, as well as training requirements for personnel completing shipping papers and manifests.

### ***Federal Aviation Administration***

#### **Title 14 USC, Chapter 1, Subchapter E, Part 77 – Aeronautics and Space – Safe, Efficient Use, and Preservation of the Navigable Airspace**

This regulation establishes requirements for notifying the Federal Aviation Administration (FAA) of certain construction activities and alterations to existing structures, in order to ensure there are no obstructions to navigable airspace. For example, projects that include construction or alteration exceeding 200 feet in height above ground level are required to notify the FAA.

#### **Title 14 USC, Part 99, Subpart A, Section 99.7 – Aeronautics and Space – Special Security Instructions**

Pursuant to this regulation, special security instructions go into effect for aircraft operations 1 hour before the time of the event until 1 hour after the end of the event. Such operations are prohibited within 3 nautical miles up to and including 3,000 feet above ground level of stadiums having a capacity of 30,000 or more people and hosting Major League Baseball, National Football League, or National Collegiate Athletic Association Division 1 games, as well as National Association for Stock Car Auto Racing Sprint Cup, Indy Car, and Champ Series races.

### ***Federal Response Plan***

The Federal Response Plan of 1999, as amended in 2003 is a signed agreement among 27 federal departments and agencies, including the American Red Cross, that (1) provides the mechanism for coordinating delivery of federal assistance and resources to augment efforts of state and local governments overwhelmed by a major disaster or emergency; (2) supports implementation of the Robert T. Stafford Disaster Relief and Emergency Act, as well as individual agency statutory authorities; and (3) supplements other federal emergency operations plans developed to address specific hazards. The Federal Response Plan is implemented in anticipation of a significant event likely to result in a need for federal assistance or in response to an actual event requiring federal assistance under a presidential declaration of a major disaster or emergency.

### ***International Fire Code***

The International Fire Code (IFC), created by the International Code Council, is the primary means for authorizing and enforcing procedures and mechanisms to ensure the safe handling and storage of any substance that may pose a threat to public health and safety. The IFC regulates the use, handling, and storage requirements for hazardous materials at fixed facilities. The IFC and the International Building Code use a hazard classification system to determine what measures are required to protect against structural fires. These measures may include construction standards, separations from property lines, and specialized equipment. To ensure that these safety measures are met, IFC employs a permit system based on hazard classification. The IFC is updated every 3 years.

### **State**

#### ***California Environmental Protection Agency***

#### ***California Health and Safety Code (HSC), Division 20, Chapter 6.11, Sections 25404- 25404.9– Unified Hazardous Waste and Hazardous Materials Management Regulatory Program***

Under CalEPA, the DTSC and Enforcement and Emergency Response Program administer the technical implementation of California’s Unified Program, which consolidates the administration, permit, inspection, and enforcement activities of several environmental and emergency management programs at the local level (DTSC 2019). Certified Unified Program Agencies (CUPAs) implement the hazardous waste and materials standards. This program was established under the amendments to the California HSC made by Senate Bill 1082 in 1994. The programs that make up the Unified Program are:

- Aboveground Petroleum Storage Act Program
- Area Plans for Hazardous Materials Emergencies
- California Accidental Release Prevention (CalARP) Program
- Hazardous Materials Release Response Plans and Inventories (Hazardous Materials Business Plans, or HMBPs)
- Hazardous Material Management Plan and Hazardous Material Inventory Statements
- Hazardous Waste Generator and On-site Hazardous Waste Treatment (Tiered Permitting) Program
- Underground Storage Tank Program

The CUPA for Riverside County is the County of Riverside, Department of Environmental Health. The CUPA for San Bernardino County is the San Bernardino County Fire Department

#### ***Title 19 California Code of Regulations (CCR), Chapter 2, Subchapter 3, Sections 2729–2734/California HSC Division 20, Chapter 6.95, Sections 25500–25520***

This regulation requires the preparation of an HMBP by facility operators. The HMBP identifies the hazards, storage locations, and storage quantities for each hazardous chemical stored on site. The HMBP is submitted to the CUPA for emergency planning purposes.

### ***California Department of Toxic Substances Control***

#### **Title 22 CCR, Division 4.5 – Environmental Health Standards for the Management of Hazardous Waste**

These regulations establish requirements for the management and disposal of hazardous waste in accordance with the provisions of the California Hazardous Waste Control Act and federal Resource Conservation and Recovery Act. As with federal requirements, waste generators must determine if their wastes are hazardous according to specified characteristics or lists of wastes. Hazardous waste generators must obtain identification numbers; prepare manifests before transporting waste off site; and use only permitted treatment, storage, and disposal facilities. Standards also include requirements for record keeping, reporting, packaging, and labeling. Additionally, while not a federal requirement, California requires that hazardous waste be transported by registered hazardous waste transporters.

In addition, Chapter 31 – Waste Minimization, Article 1 – Pollution Prevention and the Hazardous Waste Source Reduction and Management Review of these regulations require that generators of 12,000 kilograms/year of typical, operational hazardous waste evaluate their waste streams every 4 years and, as applicable, select and implement viable source reduction alternatives. This Act does not apply to nontypical hazardous waste, including ACM and polychlorinated biphenyls, among others.

#### **Title 22 California HSC, Division 20, Chapter 6.5 – California Hazardous Waste Control Act of 1972**

This legislation created the framework under which hazardous wastes must be managed in California. It provides for the development of a state hazardous waste program that administers and implements the provisions of the federal Resource Conservation and Recovery Act program. It also provides for the designation of California-only hazardous wastes and development of standards that are equal to or, in some cases, more stringent than, federal requirements. The CUPA is responsible for implementing some elements of the law at the local level.

#### **HHRA Note 3 – DTSC-Modified Screening Levels (DTSC-SLs)**

HHRA Note Number 3 presents recommended screening levels (derived from the EPA RSLs using DTSC-modified exposure and toxicity factors) for constituents in soil, tap water, and ambient air. The DTSC-SL should be used in conjunction with the EPA RSLs to evaluate chemical concentrations in environmental media at California sites and facilities.

### ***California Regional Water Quality Control Board, San Diego Region***

#### **Title 22 California HSC, Division 20, Chapter 6.67, Sections 25270–25270.13 – Aboveground Petroleum Storage Act**

This law applies if a facility is subject to SPCC regulations under Title 40 USC Part 112, or if the facility has 10,000 gallons or more of petroleum in any or combination of aboveground storage tanks and connecting pipes. If a facility exceeds these criteria, it must prepare an SPCC plan.

### ***California State Water Resources Control Board***

#### **Low-Threat Underground Storage Tank Case Closure Policy**

This policy applies to petroleum UST sites subject to HSC Chapter 6.7. This policy establishes both general and media-specific criteria. If both the general and applicable media-specific criteria are satisfied, then the leaking UST case is generally considered to present a low threat to human health, safety, and the environment. This policy

recognizes, however, that even if all of the specified criteria in the policy are met, there may be unique attributes of the case or site-specific conditions that increase the risk associated with the residual petroleum constituents. In these cases, the regulatory agency overseeing corrective action at the site must identify the conditions that make case closure under the policy inappropriate.

Regional water boards and local agencies have been directed to review all cases in the petroleum UST Cleanup Program using the framework provided in this policy. These case reviews shall, at a minimum, include the following for each UST case:

1. Determination of whether or not each UST case meets the criteria in this policy or is otherwise appropriate for closure based on a site-specific analysis.
2. If the case does not satisfy the criteria in this policy or does not present a low-risk based upon a site-specific analysis, impediments to closure shall be identified.
3. Each case review shall be made publicly available on the SWRCB's GeoTracker web site in a format acceptable to the Executive Director.

### **Environmental Screening Levels**

Environmental Screening Levels (ESLs) provide conservative screening levels for over 100 chemicals found at sites with contaminated soil and groundwater. They are intended to help expedite the identification and evaluation of potential environmental concerns at contaminated sites. The ESLs are prepared by the staff of the San Francisco Bay Regional Water Quality Control Board. While ESLs are not intended to establish policy or regulation, they can be used as a conservative screening level for sites with contamination. Statewide, environmental regulators may choose to use and enforce these as cleanup screening levels. The ESLs are not generally used at sites subject to the Low-Threat Underground Storage Tank Closure Policy.

### ***California Integrated Waste Management Board***

#### **Title 14 CCR, Division 7, Chapter 8.2 – Electronic Waste Recovery and Recycling Act of 2003**

This regulation sets requirements regarding the use and disposal of hazardous substances in electronics. When discarded, the DTSC considers the following materials manufactured before 2006 to be hazardous waste: cathode ray tube devices, liquid crystal display (LCD) desktop monitors, laptop computers with LCD displays, LCD televisions, plasma televisions, and portable DVD players with LCD screens.

### ***California Department of Transportation/California Highway Patrol***

#### **Title 13 CCR, Division 2, Chapter 6**

California regulates the transportation of hazardous waste originating or passing through the state. The California Highway Patrol and the California Department of Transportation have primary responsibility for enforcing federal and state regulations and responding to hazardous materials transportation emergencies. The California Highway Patrol enforces materials and hazardous waste labeling and packing regulations that prevent leakage and spills of material in transit and provides detailed information to cleanup crews in the event of an incident. Vehicle and equipment inspection, shipment preparation, container identification, and shipping documentation are all part of the responsibility of the California Highway Patrol, which conducts regular inspections of licensed transporters to ensure regulatory compliance. The California Department of Transportation has emergency chemical spill identification teams at locations throughout the state. Hazardous waste must be regularly removed from generating sites by licensed hazardous waste transporters. Transported materials must be accompanied by hazardous waste manifests.

### ***California Division of Occupational Safety and Health Administration***

#### **Title 8 CCR – Safety Orders**

Under the California Occupational Safety and Health Act of 1973, the California Occupational Safety and Health Administration (CalOSHA) is responsible for ensuring safe and healthful working conditions for California workers. CalOSHA assumes primary responsibility for developing and enforcing workplace safety regulations in Title 8 of the CCR. CalOSHA hazardous substances regulations include requirements for safety training, availability of safety equipment, hazardous substance exposure warnings, and emergency action and fire prevention plan preparation. CalOSHA also enforces hazard communication program regulations, which contain training and information requirements, including procedures for identifying and labeling hazardous substances. The hazard communication program also requires that Material Safety Data Sheets be available to employees and that employee information and training programs be documented.

In Division 1, Chapter 4, Subchapter 4 – Construction Safety Orders of Title 8, construction safety orders are listed and include rules for demolition, excavation, explosives work, working around fumes and vapors, pile driving, vehicle and traffic control, crane operation, scaffolding, fall protection, and fire protection and prevention, among others.

Cal/OSHA Asbestos and Carcinogen Unit enforces asbestos standards in construction, shipyards, and general industry. This includes identification and removal requirements of asbestos in buildings, as well as health and safety requirements of employees performing work under the Asbestos-In-Construction regulations 8 CCR 1529. Only a Cal/OSHA-Certified Asbestos Consultant can provide asbestos consulting (as defined by the Business and Professions Code, 7180–7189.7, and triggered by the same size and concentration triggers as for registered contractors). These services include building inspection, abatement project design, contract administration, supervision of site surveillance technicians, sample collection, preparation of asbestos management plans, and clearance air monitoring.

### ***California Department of Public Health***

The California Department of Public Health enforces lead laws and regulations related to the prevention of lead poisoning in children, prevention of lead poisoning in occupational workers, accreditation and training for construction-related activities, lead exposure screening and reporting, disclosures, and limitations on the amount of lead found in products. Accredited lead specialists are required to find and abate lead hazards in a construction project and to perform lead-related construction work in an effective and safe manner.

### ***California Building Standards Commission***

#### **Title 24 of the CCR – California Building Standards Code**

The California Building Standards Code is a compilation of three types of building standards from three different sources:

- building standards that have been adopted by state agencies without change from building standards contained in national model codes
- building standards that have been adopted and adapted from the national model code standards to meet California conditions
- building standards authorized by the California legislature that constitute extensive additions not covered by the model codes that have been adopted to address particular California concerns

Among other rules, the code contains requirements regarding the storage and handling of hazardous materials. The Chief Building Official at the local government level must inspect and verify compliance with these requirements prior to issuance of an occupancy permit.

### ***California Building Code – Chapter 7A***

This chapter of the California Building Code establishes minimum standards for buildings located in FHSZ within State Responsibility Areas or any Wildland-Urban Interface Fire Area to resist the intrusion of flames or burning embers projected by a vegetation fire.

### ***California State Board of Forestry and Fire Protection/California Department of Forestry and Fire Protection***

#### **2010 Strategic Fire Plan for California**

Public Resources Code Sections 4114 and 4130 authorize the State Board of Forestry to establish a fire plan that establishes the levels of statewide fire protection services for State Responsibility Area lands. These levels of service recognize other fire protection resources at the federal and local level that collectively provide a regional and statewide emergency response capability. In addition, California's integrated mutual aid fire protection system provides fire protection services through automatic and mutual aid agreements for fire incidents across all ownerships. The California Fire Plan is the state's road map for reducing the risk of wildfire through planning and prevention to reduce firefighting costs and property losses, increase firefighter safety, and to contribute to ecosystem health.

### ***California State Fire Marshal***

#### **Title 19 CCR, Division 1, Chapter 10 – Explosives**

This regulation addresses the sale, transportation, storage, use, and handling of explosives in California. Requirements for obtaining permits from the local Fire Chief having jurisdiction and blasting guidelines (such as blasting times, warning devices, and protection of adjacent structures and utilities) are also explained in Chapter 10 of Title 19.

### ***California Emergency Services Act***

Under the Emergency Services Act (California Government Code, Section 8550 et seq.), the State of California developed an emergency response plan to coordinate emergency services provided by federal, state, and local agencies. Rapid response to incidents involving hazardous materials or hazardous waste is an integral part of the plan, which is administered by the Governor's Office of Emergency Services. The Office of Emergency Services coordinates the responses of other agencies, including the EPA, California Highway Patrol, Regional Water Quality Control Boards, air quality management districts, and county disaster response offices.

### ***California Accidental Release Prevention Program***

Similar to the EPA Risk Management Program, CalARP (19 CCR 2735.1 et seq.) regulates facilities that use or store regulated substances, such as toxic or flammable chemicals, in quantities that exceed established thresholds. The overall purpose of CalARP is to prevent accidental releases of regulated substances and reduce the severity of releases that may occur. CalARP meets the requirements of the EPA Risk Management Program, which was established pursuant to the Clean Air Act Amendments.

### **Local**

The SPA is located within the City of Riverside and Riverside County, as well as the City of Colton and San Bernardino County. The proposed project would be subject to federal and state agency planning documents described above, and would be subject to regional and local planning documents for these cities and counties.

#### ***South Coast Air Quality Management District***

The South Coast Air Quality Management District (SCAQMD) was created by the California state legislature to facilitate compliance with the federal Clean Air Act and to implement the state air quality program. Toward that end, the SCAQMD develops regulations designed to achieve these public health standards by reducing emissions from business and industry. The SCAQMD rules include, but are not limited to, the regional Air Quality Management Plan, which includes the integrated strategies and measures needed to meet the National Ambient Air Quality Standards; air quality permits, such as Title V for major emission sources; and Rule 1403 which regulates the assessment, abatement, and demolition of structures that contain asbestos.

#### ***Riverside County Hazardous Waste Management Plan***

The Riverside County Hazardous Waste Management Plan (CHWMP) identifies current and projected future hazardous waste generation and management needs throughout the County of Riverside (County). The CHWMP also provides a framework for the development of facilities to manage hazardous wastes (i.e., facility siting criteria) and includes a Households Hazardous Waste Element that is designed to divert household hazardous wastes from County landfills. The CHWMP addresses only those hazardous waste issues for which local governments have responsibilities, namely land use decisions. The County and cities are required to implement facility siting policies and criteria within local planning and permitting processes. Accordingly, the City of Riverside implements applicable portions of CHWMP.

#### ***City of Riverside Fire Department***

The Riverside Fire Department is in charge of emergency response services within the City of Riverside. The Riverside Fire Department has created emergency response maps for the City of Riverside through a collaboration of Fire, Innovation and Technology, and Parks, Recreation and Community Services Departments. The portion of the SPA that falls within the City of Riverside is under the jurisdiction of the Riverside Fire Department.

#### ***City of Riverside Local Hazard Mitigation Plan***

The Riverside Fire Department Office of Emergency Management developed a Local Hazard Mitigation Plan (LHMP), which was adopted in February 2019. The LHMP describes the City's profile, potential County and City hazards, and the updated mitigated actions/plans put in place to manage those hazards. The portion of the SPA that falls within the City of Riverside (all areas except Subareas 1 and 2) is under the jurisdiction of the City's of LHMP.

#### ***City of Riverside Municipal Code***

Section 9.48 of the Riverside Municipal Code requires that any person who uses or handles hazardous materials or mixtures containing hazardous materials in an amount equal to, or greater than (1) 500 pounds; (2) 55 gallons; (3) 200 cubic feet at standard room temperature and pressure for compressed gas; (4) 10 pounds for organic peroxides; or (5) any known or suspected carcinogen, radioactive material, Class A poison, or Class A or Class B explosive, shall, during the month of January, prepare and submit a completed inventory form and file a hazardous materials business plan with the City's Fire Department.

Title 16 of the Riverside Municipal Code provides minimum standards to safeguard life or limb, health, property, and public welfare by regulating the design, construction, quality of materials, use and occupancy, location and maintenance of buildings, equipment, structures, and grading within the City. Furthermore, Section 16.32.98 discusses the prohibition of stored explosives with the exception of temporary storage for use in connection with approved blasting operations.

Title 17 of the Riverside Municipal Code sets forth rules and regulations that will further implement the goals and objectives of the City of Riverside General Plan 2025 in order to control evacuation, grading, and earthwork construction. In addition, Title 17 establishes the administrative procedures for grading plan approval, issuance of permits, inspections, and penalties for unauthorized grading activity.

### ***City of Riverside Planning Division, Community & Economic Development Department***

#### **Riverside General Plan 2025**

The Riverside General Plan 2025 (City of Riverside 2007) was developed by the City of Riverside to include practical application for all residents, the City Council and Boards and Commissions, City departments and outside agencies. It includes elements for housing, arts and culture, education, public safety, noise, open space, public facilities, parks and recreation, air pollution, and historic preservation, among others. The General Plan Public Safety Element has multiple objectives and policies related to hazards and hazardous materials that would apply to the SPA.

**Objective PS-3** Minimize risks associated with the storage, transport, and disposal of hazardous materials.

**Policy PS-3.1** Ensure that hazardous materials used in business and industry are handled properly.

**Policy PS-3.2** Provide the Fire Department with resources to ensure that hazardous materials used and generated by businesses are handled properly.

**Policy PS-3.4** Reduce the risks associated with ground transportation hazards, where feasible.

**Policy PS-3.5** Encourage sewer service to minimize groundwater contamination.

**Objective PS-6** Protect property in urbanized and non-urbanized areas from fire hazards.

**Policy PS-6.3** Integrate fire safety considerations in the planning process.

**Policy PS-6.5** Mitigate existing fire hazards related to urban development or patterns of urban development as they are identified and as resources permit.

**Policy PS-6.10** Identify noncontiguous streets and other barriers to rapid response and pursue measures to eliminate the barriers.

**Objective PS-9** Minimize the effects from natural and urban disasters by providing adequate levels of emergency response services to all residents in Riverside.

**Policy PS-9.2** Support the Riverside Emergency Management Office in coordinating the City's response to disasters, providing public outreach and presentations and assisting residents to prepare for major events.

- Policy PS-9.4** Ensure that equipment and structures designed to provide emergency disaster services are located and designed to function after a disaster or emergency event, or relocate any such structures which are not adequate to provide emergency services.
- Policy PS-9.5** Provide effective and relevant information to the public regarding disaster preparedness.
- Policy PS-9.7** Identify actions to reduce the severity and probability of hazardous occurrences.
- Policy PS-9.8** Reduce the risk to the community from hazards related to geologic conditions, seismic activity, flooding and structural and wildland fires by requiring feasible mitigation of such impacts on discretionary development projects.

**Objective PS-10** Improve the community's ability to respond effectively to emergencies.

- Policy PS-10.3** Ensure that public safety infrastructure and staff resources keep pace with new development planned or proposed in Riverside and the Sphere of Influence.
- Policy PS-10.4** Continue to ensure that each development or neighborhood in the City has adequate emergency ingress and egress, and review neighborhood access needs to solve problems, if possible.
- Policy PS-10.5** Coordinate with local agencies and organizations to educate all residents and businesses to take appropriate action to safeguard life and property during and immediately after emergencies.

### ***San Bernardino County Fire Department***

Federal and state hazardous materials regulations require all businesses that handle more than a specified amount of hazardous materials or extremely hazardous materials to obtain a hazardous materials permit and submit a business plan to its local CUPA. The CUPA also ensures local compliance with all applicable hazardous materials regulations. The CUPA with responsibility for the City of Colton is the San Bernardino County Fire Department, Hazardous Materials Division, which also manages the following hazardous waste programs: (1) Hazardous Materials Release Response Plans and Inventory; (2) California Accidental Release Program; (3) Underground Storage Tanks; (4) Aboveground Petroleum Storage Act/Spill Prevention, Control, and Countermeasure Plan; (5) Hazardous Waste Generation and Onsite Treatment; and (6) Hazardous Materials Management Plans and Inventory.

### ***County of San Bernardino Countywide Integrated Waste Management Plan***

The County of San Bernardino developed the Countywide Integrated Waste Management Plan in 1995, with the most recent update in April 2018. The plan includes four elements. The first three—source reduction and recycling, household hazardous waste, and nondisposal facilities—are developed by local jurisdictions, while countywide siting of landfills is completed by the county. Household hazardous wastes are managed by the San Bernardino County Fire Department, as well as local jurisdictions. Additionally, local landfilling does not allow hazardous waste disposal, and hazardous wastes are removed from the disposal stream through special collection and processing.

San Bernardino County does not currently operate a hazardous waste landfill; hazardous wastes that require disposal are shipped out of the county to the nearest Class I landfills in Kings County or Imperial County.

### ***City of Colton Fire Department***

The City of Colton Fire Department is in charge of fire suppression, emergency medical services, rescue, and hazardous materials mitigation for the City of Colton. The portion of the SPA that falls within the City of Colton (Subareas 1 and 2) is under the jurisdiction of the Colton Fire Department, Station 213 Response Area.

### ***City of Colton Local Hazard Mitigation Plan***

The LHMP for the City of Colton was updated in September 2018 and is still under public review. The LHMP summarizes the emergency management cycle of response, recovery, mitigation, and preparedness for the City of Colton. The portion of the SPA that falls within the City of Colton (Subareas 1 and 2) is under the jurisdiction of the City of Colton LHMP.

### ***City of Colton Planning Division – Development Services Department***

The City of Colton Planning Division is responsible for providing advice, review, and approval, or recommendations on development proposals, to ensure high quality development that promotes Colton's interests as defined in the General Plan, Zoning Ordinance, and Specific Plans; for providing support to the City Council, Planning Commission, and Historic Preservation Commission; and for updating and administering development standards, land use codes and policies.

### **2013 City of Colton General Plan**

The City of Colton General Plan Safety Element includes principles and standards designed to minimize loss due to fires. Standard 1 limits development in high fire hazard areas. Standard 2 defines major arterials and freeways as evacuation routes during emergency situations. The City of Colton General Plan also identifies land use designations, which correspond to the Subareas 1 and 2 of the SPA.

## 3.8.3 Thresholds of Significance

The significance criteria used to evaluate the project impacts related to hazards and hazardous materials are based on Appendix G of the California Environmental Quality Act (CEQA) Guidelines. According to Appendix G of the CEQA Guidelines, a significant impact related to hazards and hazardous material would occur if the project would:

1. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.
2. Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.
3. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school.
4. Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as result, would it create a significant hazard to the public or the environment.

5. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area.
6. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.
7. Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires.

### 3.8.4 Impacts Analysis

***Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?***

**Less-than-Significant Impact.** The Northside Specific Plan does not involve a specific development project; rather, it provides a framework for specific development projects that would occur in the future within the SPA. In general, the Northside Specific Plan would lead to an increase in the intensity of residential, commercial, business/office park, light industrial, and recreational uses (see Figure 2-6, Proposed Specific Plan Land Uses, in Chapter 2). Some subareas within the SPA that are currently used for commercial and industrial use would be changed to residential use in the future. In addition, the Northside Specific Plan allows for residential uses to be mixed with commercial and light-industrial uses via overlay zones in certain subareas. The increase in residential areas as well as an increase in residential uses intermixed with industrial and commercial uses would potentially cause an increase in exposure to hazardous materials due to the transport, use, or disposal of hazardous materials from existing businesses in the area. The Northside Specific Plan has a goal to “buffer industrial, residential and recreation land uses.” The mixed use areas, such as Business/Office Park (B/OP), incorporate only light industrial and commercial uses that do not typically create significant nuisances from odor, dust, noise, or heavy truck traffic, thereby reducing the exposure to residential areas. The Northside Specific Plan also includes measures to reduce truck trips within residential and commercial areas, which would serve to reduce the transport of hazardous materials within these more sensitive areas.

As discussed in Section 3.8.1, Existing Condition, the sites identified on the CalEPA Site Portal, which are businesses that handle hazardous materials or have documented environmental permits, are generally located within subareas that are currently zoned commercial, industrial, or mixed use. However, some of the sites identified are located in subareas that are proposed to be changed to residential use (e.g. Subareas 3, 4, 5, 6, and 7). As discussed under the existing conditions, businesses are required to strictly adhere to the federal state, and local rules and regulations regarding the transport, use and disposal of hazardous materials. Businesses that handle hazardous materials are required to do so under California HSC, Division 20, Chapter 6.95, Sections 25500–25520, which requires an HMBP be created and submitted to the regional CUPA agency (**CM-HAZ-1**). The HMBP lists reportable quantities of hazardous materials stored and managed at a business. Transportation of hazardous materials is regulated under Title 13 CCR, Division 2, Chapter 6, Department of the California Highway Patrol, which requires safety measures and labels to identify and safely transport hazardous materials (**CM-HAZ-2**). California also has air and water emission standards, which require permits for limited emissions from commercial and industrial businesses, under the regulatory authority of SCAQMD (**CM-AIR-1**) and State Water Quality Control Board (**CM-HYD-1**, **CM-HYD-2a**, and **CM-HYD-2b**), respectively. These laws and regulations are designed to reduce and/or eliminate exposure of hazardous materials to the public and the environment. Overall, compliance with permitting and associated regulations would protect future residents and others within the SPA from exposure to hazardous materials.

Changes in land use could result in demolition of existing structures for future development. There is a potential for hazardous materials and building products, such as asbestos and lead-based paint, to be present in these buildings. Hazardous material assessment and abatement is required under local regulations, specifically OSHA, Cal/OSHA, California Department of Public Health, and SCAQMD Rule 1403 (**CM-HAZ-3** and **CM-HAZ-4**). Strict adherence to these rules prior to and during demolition of existing buildings and structures would limit public exposure to hazardous materials.

With adherence to the existing federal, state, and local laws and regulations regarding routine transport, use, and disposal of hazardous materials, impacts would be less than significant.

***Would the project create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?***

### Construction

**Potentially Significant.** As discussed in the Section 3.8.1, Existing Conditions, and summarized in Tables 3.8-1 and 3.8-2, there are multiple sites identified in the SPA that have remaining contamination in soil, groundwater and/or soil vapor (Figure 3.8-1). Development of these sites could cause an upset or accident condition where hazardous materials are released to the environment. The contamination at these sites could also restrict the future land use, i.e., residential, without further remediation or protection measures. In addition, as discussed in the previous impact section, demolition of existing structures without proper assessment, abatement, and disposal of hazardous materials and building materials, such as lead-based paint and asbestos, could cause a release to the environment. As with any agricultural property, the historic agricultural use at Pellissier Ranch may have resulted in residual chlorinated pesticides and metals in the surface soils. This could impact future development, if residual levels are above applicable risk-based criteria.

Future site-specific development projects would be required to undergo individual permitting processes, including future CEQA review on a project-specific level if necessary. Therefore, individual site-specific hazards would be required to be addressed during future development ministerial or discretionary processing in compliance with local, state, and federal regulations. The sites identified for future development would undergo a review for hazardous material contamination in soil, soil vapor, or groundwater and an assessment for hazardous building materials which could, upon disturbance during construction, be released to the environment or, upon future occupation, cause a hazard to the public due to exposure to hazardous materials above the applicable regulatory exposure limits. The sites identified in Table 3.8-1 have open files with the DTSC and EPA, and future development at these sites has the potential to result in a significant upset or accident condition if not completed in compliance with regulations and with the proper oversight (**Impact HAZ-1**). The sites identified in Table 3.8-2 have closed regulatory cleanup cases, but have remaining contamination that may have the potential to result in a significant upset or accident condition if future development is not completed in compliance with regulations and with the proper oversight (**Impact HAZ-2**). The potential for residual pesticides and metals on the Pellissier Ranch property may have the potential to result in a significant upset or accident condition if levels are above risk-based criteria (**Impact HAZ-3**).

### Operation

**Less-than-Significant Impact.** Ongoing and future commercial and light industrial operations may occur in areas where mixed use with residential housing is proposed. Discharges from these operations, either permitted or uncontrolled, would potentially cause a hazard to the public or environment, especially those in future nearby residential areas. As discussed in the section above, existing and future commercial and industrial operations would

be required to adhere to all appropriate federal, state, and local regulations regarding discharges to air, land, and water that contain hazardous materials, and the appropriate permits would be required to ensure exposure to future nearby residential development would not be affected (**CM-HAZ-1** and **MC-HAZ-2**). Residential development in mixed use areas may be limited based on the local emissions of nearby operations, and would be assessed on a project-specific basis. Similarly, new commercial and light industrial uses could be limited based on adjacency of residential uses. As indicated in the Northside Specific Plan and mentioned above, Buffers would be implemented to separate residential from intense land use. For example, light industrial would be a buffer between heavy industrial use and residential/mixed use. Future development, land use, and operations would adhere to federal, state, and local requirements regarding the handling of hazardous materials, as discussed in the section above, which take into account prevention measures for upset and accident conditions such as spills and unpermitted emissions. Overall, existing and future uses that involve hazardous materials would be managed in accordance with applicable permits and would result in less than significant impacts.

***Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?***

**No Impact.** Two schools are located within the SPA: Patricia Beatty Elementary School and Fremont Elementary School. The schools are currently located in medium density residential and public facilities zones, respectively. The Northside Specific Plan involves changing zoning surrounding the schools to Public Facilities to bring zoning into compliance. The Public Facilities Zone designates use for schools, hospitals, libraries, utilities, and government institutions. The Northside Specific Plan would not affect hazardous emissions or the handling of hazardous materials within these areas. Therefore, no impact would occur.

***Would the project be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?***

**Potentially Significant** As indicated above, there are multiple sites identified in the SPA that have remaining contamination in either soil, groundwater, and/or soil vapor (Figure 3.8-1; Tables 3.8-1 and 3.8-2). The sites listed in Table 3.8-1 are open active remediation sites as defined in Government Code Section 65962.5. Development of these sites could cause an upset or accident condition where hazardous materials are released to the environment. The contamination at these sites could also restrict future land use, i.e. residential, without further remediation or protection measures. Overall, the sites identified in Table 3.8-1 have open files with the DTSC and EPA, and would pose a significant hazards impact related to future development of a listed site (**Impact HAZ-1**). The sites identified in Table 3.8-2 have closed regulatory cleanup cases, but have remaining contamination that may pose a significant impact for the future development (**Impact HAZ-2**). In addition, sites are added to and removed from the contaminated site lists as defined in Government Code Section 65962.5 on a rolling basis. Therefore, the sites identified in Tables 3.8-1 and 3.8-2 should not be considered the extent of potential impacts for future development. Future site-specific development projects would be required to undergo individual permitting processes, including future CEQA review, on a project-specific level. Therefore, individual site-specific hazards would be addressed in accordance with regulations during the ministerial or discretionary development process.

***For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?***

**Less-than-Significant Impact.** The southwestern section of the SPA crosses into the Military Outer Horizontal Surface Airspace Protection Zone, near the corner of Interstate 215 and Highway 91 (Mead & Hunt 2010). The Airspace Protection Zone is a designated area within which construction of objects or buildings need to be analyzed for “obstruction to air navigation.” In other words, new construction within this area could pose a hazard to air navigation into or out of the March Air Reserve Base. While the southwestern section of the SPA does cross into an outer Airspace Protection Surface, it does not fall within any noise safety zones or accident potential zones (Mead & Hunt 2010). Future residential and mixed use development is proposed for this area. Additionally, the portion of the SPA north of I-15 and east of I-215 is located within Airport Influence Area Compatibility Zone E of the March Air Reserve Base ALUCP (Mead & Hunt 2010). As noted in the ALUCP, noise and safety risk levels are considered to be low, and while there are no residential density restrictions within this zone, but disclosure is required to potential home buyers.

The Northside Specific Plan includes incentives for development that allow for greater building heights. The project would not result in a safety hazard or excessive noise for people residing or working in the project area. However, the project would allow for potential for redevelopment that may involve building height changes. Future site-specific development projects that occur within Zone E or Airspace Protection Surfaces for the March ARB would be required to be reviewed by the City for consistency with the ALUCP (**CM-HAZ-5**). Thus, impacts would be **less-than-significant**.

***Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?***

**No Impact.** The Riverside County Sheriff’s Department, San Bernardino County Sheriff’s Department, California Highway Patrol, and other cooperating law enforcement agencies have primary responsibility for evacuations within the SPA and surrounding vicinity. The City of Colton and County of Riverside also rely on a community emergency response team, which are a group of volunteer residents who are trained to provide assistance during an emergency event. These teams are organized by the City of Colton Fire Department and County of Riverside Emergency Management Division. Implementation of the Northside Specific Plan would either maintain the rules and regulations of the applicable city codes for the Cities of Colton and Riverside, or the Northside Specific Plan would establish and impose more restrictive regulations and requirements. These would be implemented in cooperation and coordination with the local emergency response agencies in order to meet or exceed existing emergency response requirements set forth by the applicable agencies.

The Northside Specific Plan includes a comprehensive Circulation, Mobility, and Trails plan that would alter transportation facilities within the SPA. However, emergency vehicle access to the SPA would continue to be provided along Interstate 215, South Riverside Avenue/Main Street, and Columbia Avenue with the implementation of the project in accordance with the City of Colton General Plan Safety Element and City of Riverside General Plan 2025 Public Safety Element (City of Colton 2018; City of Riverside 2007). Roadways would be designed in compliance with the City of Riverside Fire Code, City of Colton Fire Code, and County of Riverside Operational Area – Multi-Jurisdictional Local Hazard Mitigation Plan (**CM-WDF-1a** to **CM-WDF-5**). These regulations are intended to ensure roadways can accommodate emergency response vehicles and preclude impacts related to physically interfering with emergency responses. As discussed in Section 3.15, Transportation, the Northside Specific Plan would not adversely affect operations on the local and regional circulation system in a manner that would physically interfere with emergency responses or evacuation. Therefore, a less-than-significant impact to existing emergency response or evacuation plans would occur.

*Would the project expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires?*

**Less-than-Significant Impact.** As discussed in Section 3.8.1, Existing Conditions, the northern portion of the SPA, which lies within the City of Colton, is located within Moderate to Very High FHSZs. As discussed in Section 3.18, Wildfire, residences and commercial uses would be introduced to these hazard zones, and would include increased fire suppression and response infrastructure. Wildfire risks would be further reduced with development of a greenbelt/agriculture buffer along the east and west boundaries of the City of Colton development Subareas 1 and 2, which would reduce wildfire risks to a less-than-significant impact. Refer to Section 3.18, Wildfire, for additional details.

### 3.8.5 Mitigation Measures

The following mitigation measures would be implemented to reduce impacts due to hazards and hazardous materials.

**MM-HAZ-1** Prior to the issuance of a grading or demolition permit for a site undergoing active remediation and environmental monitoring, the City with land use jurisdiction shall require written confirmation from the overseeing environmental agency to ensure the existing environmental contamination will not impact construction worker health and safety, future occupant health and safety, or future land use either on or nearby the site, or that a remediation plan has been developed and will be implemented in accordance with the overseeing environmental agency to ensure future activities will not exceed established regulatory thresholds for future land use either on or nearby the site.

**MM-HAZ-2** Prior to the issuance of a grading or demolition permit, sites with previously documented soil, soil vapor, and/or groundwater contamination cases that have been closed shall be reviewed by the City with land use jurisdiction to determine compliance with applicable regulatory standards for exposure limits based on the proposed land use (i.e., residential, commercial, industrial) as well as construction worker safety requirements. The applicant may be required to provide additional data (i.e., samples) and/or a health risk assessment to the City with land use jurisdiction to demonstrate such compliance prior to the issuance of a grading or demolition permit. If remaining contamination levels exceed the exposure limits for the proposed land use or worker safety, the City with land use jurisdiction shall consult the overseeing regulatory agency prior to the issuance of permits to determine an appropriate plan of action for remediation or work plan related to the potential hazards. Any remediation efforts shall ensure that potential hazardous materials are reduced to levels below the established regulatory thresholds, as needed.

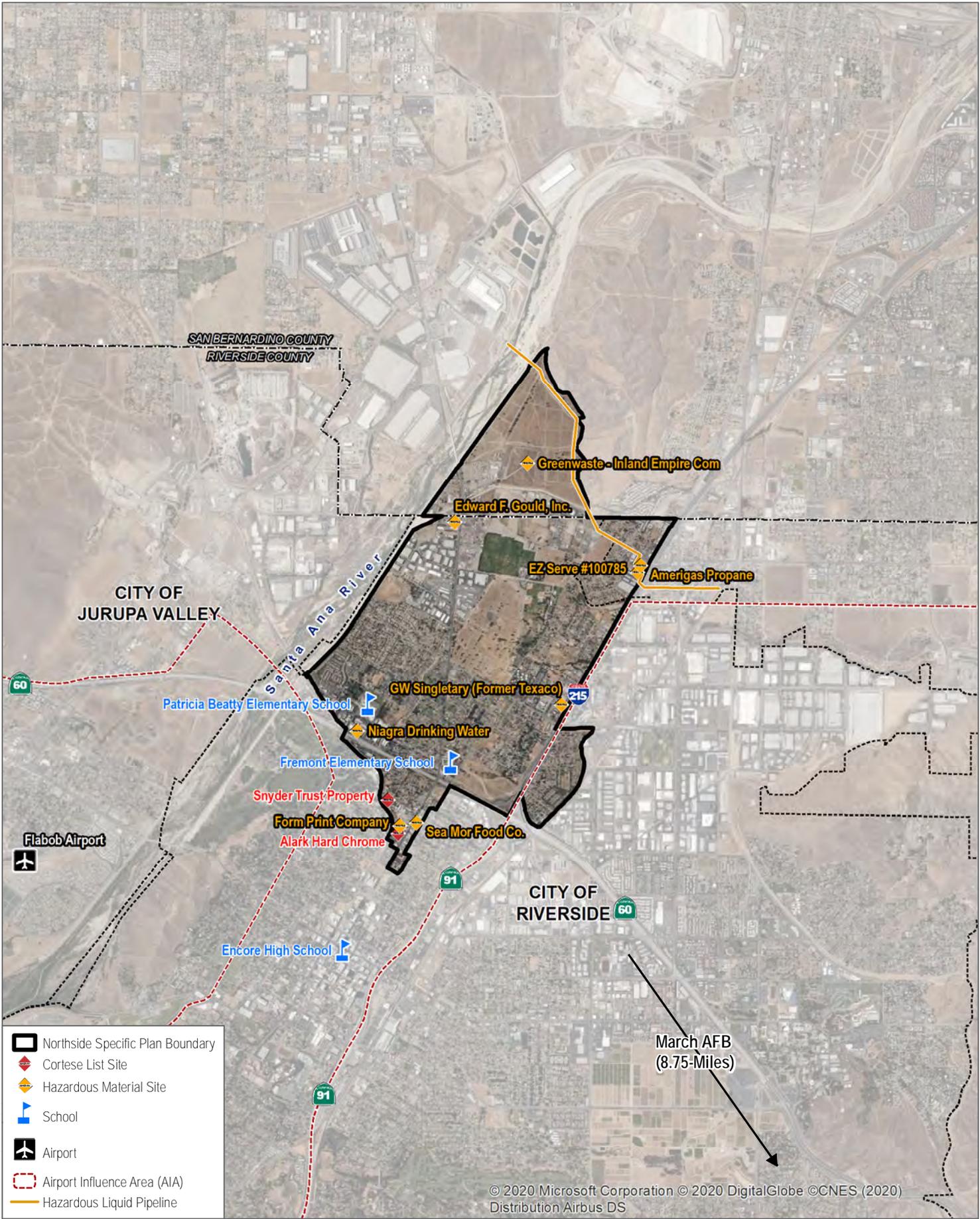
**MM-HAZ-3** Prior to the issuance of a grading or construction permit within the Pellissier Ranch area (Subarea 1 or 2), the City with land use jurisdiction shall require that surface soil impacts be assessed for future development to determine if residual pesticide contamination has impacted surface soils above applicable risk-based criteria. If levels are found to be above applicable risk-based criteria for future land development or construction worker safety, the City with land use jurisdiction will require additional remedial measures are taken to ensure the contaminated media does not impact human health of construction workers or future occupants, or the environment and future land use in accordance with regulations.

### 3.8.6 Level of Significance After Mitigation

Sites with confirmed contamination in soil, groundwater, and soil vapor pose a risk of exposure to hazards and hazardous materials (**Impact HAZ-1**). Implementation of **MM-HAZ-1** would require consultation with the property owner and overseeing environmental agency to ensure existing environmental contamination does not impact future land use. With mitigation implemented, impacts would be less than significant. However, the City of Riverside does not have jurisdiction over development projects that occur within the Northside Specific Plan areas within the County of Riverside or City of Colton; thus, the City of Riverside cannot legally impose this mitigation measure within those jurisdictions. For this reason, this impact is considered significant and unavoidable.

Sites with remaining environmental contamination after regulatory closure still pose a risk of exposure to hazardous materials, and future land use may be restricted (**Impact HAZ-2**). Implementation of **MM-HAZ-2** would require review of the site characteristics and conformance with current environmental regulations regarding contamination to soil, soil vapor, and groundwater to limit exposure to the public or the environment. With mitigation implemented, impacts would be less than significant. However, the City of Riverside does not have jurisdiction over development projects that occur within the Northside Specific Plan areas within the County of Riverside or City of Colton; thus, the City of Riverside cannot legally impose this mitigation measure within those jurisdictions. For this reason, this impact is considered significant and unavoidable.

Sites within the Pellissier Ranch area have the potential for elevated pesticide and herbicide contamination due to historic agricultural use (**Impact HAZ-3**). Implementation of **MM-HAZ-3** would require evaluation of surface soils to determine if contamination levels are below risk-based criteria for future land use and construction worker safety. If levels are above these criteria, additional mitigation or remediation measures would be required. With mitigation implemented in accordance with applicable regulations, impacts would be less than significant. However, the City of Riverside does not have jurisdiction over development projects that occur within the Northside Specific Plan areas within the County of Riverside or City of Colton; thus, the City of Riverside cannot legally impose this mitigation measure within those jurisdictions. For this reason, this impact is considered significant and unavoidable.



SOURCE: City of Riverside 2020; Bing Maps



FIGURE 3.8-1

Site Hazards

Northside Specific Plan Program EIR

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## 3.9 Hydrology and Water Quality

This section describes the existing hydrology and water quality conditions of the Specific Plan Area (SPA) and vicinity, identifies associated regulatory requirements, evaluates potential impacts, and identifies mitigation measures related to implementation of the Northside Specific Plan. Information utilized for this section includes the project-specific Northside Specific Plan Baseline Opportunities & Constraints Analysis (Appendix B) and Hydrology and Water Quality Letter Report (Appendix F, Hydrology and Water Quality Letter Report), as well as publically available documents that are cited within the text below.

### 3.9.1 Existing Conditions

#### **Regional Watershed**

The SPA is located immediately adjacent to the Santa Ana River. The Santa Ana River Watershed is approximately 2,800 square miles in size, with surface water flows beginning in the San Bernardino and San Gabriel Mountains and flowing in a generally northeast to southwest direction to the Pacific Ocean. More specifically, the SPA is located in the Middle Santa Ana River Watershed, which is 488 square miles in size and located generally in the north-central portion of the encompassing Santa Ana River Watershed, as shown on Figure 3.9-1, Regional Watersheds. This watershed includes the southwestern part of San Bernardino County and the northwestern part of Riverside County (CDM Smith 2017).

The main stem of the Santa Ana River is the primary water body in the watershed. This river, which flows in a generally southwestern direction for nearly 100 miles, from its headwaters to the Pacific Ocean, is the largest stream system in Southern California. The Santa Ana River is divided into multiple reaches. The SPA is located within Reach 5, which is the portion of the river located within San Bernardino and Riverside Counties (CDM Smith 2017).

#### **Topography and Drainage**

As discussed in Section 3.6, Geology and Soils, site topography ranges from approximately 850 feet above mean sea level in the northeast region to 800 feet in the southwest, at a gradient of 0% to 8% (Figure 2-3, Topographic Map in Chapter 2). The SPA is underlain predominately by highly permeable sandy river channel and alluvial deposits, which slope gradually to the Santa Ana River, located along the western boundary of the SPA. Springbrook Wash enters the SPA along the eastern boundary, and exits the area along the southern boundary (Figure 3.9-2, Drainage Conditions). Springbrook Wash is also known as Springbrook Drainage Channel, Springbrook Arroyo, or Springbrook Creek. The wash serves as conveyance for stormwater through the SPA and includes three types of drainage features, including: 1) stabilized, concrete trapezoidal channel; 2) shallow and narrow soft bottom channel; and 3) defined soft-bottom channel (Appendix B, Northside Specific Plan Baseline Report).

On-site tributary channels to Springbrook Wash are located in the northeast and southeast portions of the SPA. Highgrove Channel, also known as the Main Street Channel, conveys drainage from Grand Terrace, in the northeastern SPA, and discharges into the Santa Ana River to the west. Along the eastern boundary of the SPA, near the intersection of West La Cadena Drive and Bowman Street, runoff from this area is conveyed via surface flow (sheet flow) in a westerly direction towards Springbrook Wash. University Wash, located in the southern portion of the SPA, conveys stormwater through a series of culverts and open channels before intersecting with Springbrook Wash. Springbrook Wash flows into Lake Evans, located southwest of the project area. Lake Evans then drains into the

adjacent Santa Ana River. On-site channels within Riverside County are regulated and maintained by Riverside County Flood Control and Water Conservation District (RCFC) and the City of Riverside, and Highgrove Channel within the City of Colton is maintained by the San Bernardino County Flood Control District, and the San Bernardino County Public Works Department (Appendix B, Northside Specific Plan Baseline Report, and Appendix F, Hydrology and Water Quality Letter Report; Nobuya, M., Rick Engineering, personal communication).

In general, there is a lack of drainage infrastructure in the northern SPA, where there is less developed land. In areas where there is existing development, drainage is conveyed along streets until it reaches a defined drainage channel. Areas that require drainage infrastructure within the County of Riverside and the City of Riverside have been identified in the Riverside County Flood Control and Water Conservation District, University Area Master Drainage Plan. The portion of the SPA located within the City of Colton is not yet developed and does not currently include drainage facilities (Appendix B, Northside Specific Plan Baseline Report).

### **Surface Water Quality**

The Santa Ana Regional Water Quality Control Board (RWQCB) – Region 8, is one of nine Water Quality Control Boards overseen by the California State Water Resource Control Board (SWRCB). The RWQCB regulates water quality, among various other agencies, within the Santa Ana River Region. Water quality objectives, plans, and policies for surface waters are established in the Santa Ana Region Basin Plan, which establishes water quality objectives based on the beneficial uses identified for surface waters. Existing and potential beneficial uses for Reach 5 of Santa Ana River, located adjacent to the SPA, include: Groundwater Recharge, Water Contact Recreation, Non-contact Water Recreation, Warm Freshwater Habitat, Wildlife Habitat, Rare, Threatened or Endangered Species Habitat, and Spawning, Reproduction and Development (SWRCB 2016a).

The Basin Plan aims to address threats to water quality through various programs and policies, such as establishment of total maximum daily loads (TMDLs) of pollutants. The proposed plan is located in a moderately urbanized setting that eventually drains into the Pacific Ocean. Reach 5 of the Santa Ana River, located within the Upper Santa Ana Valley Region, is impaired under the Clean Water Act, Section 303(d), with Indicator Bacteria (SWRCB 2017).

Much of the existing development within the SPA predates stormwater quality treatment requirements currently in effect today for new development and redevelopment projects. Regional stormwater basins, which could potentially be used for stormwater quality treatment, are not present within the SPA (Appendix B, Northside Specific Plan Baseline Report).

### **Groundwater**

Regionally, the groundwater basins underlying northwest Riverside County and southwestern San Bernardino County consist of the Arlington Basin, the Riverside Basin, the Rialto-Colton Basin, and the Bunker Hill Basin (RPU 2016). The Riverside Basin and Arlington Basin are sometimes referred to together as the Riverside-Arlington Subbasin.

Locally, the Riverside Basin is bounded by the Rialto-Colton Fault to the north, Arlington Basin to the south, Box Spring Mountains to the east, and Chino Basin to the west; see Figure 3.9-3, Groundwater Basins. The Riverside Basin consists of alluvial fill, and is unconfined, which is a basin with the water table at atmospheric pressure, and thus is able to rise and fall. The basin is divided into two areas based on jurisdictional boundaries, including the portion of the Riverside Basin in San Bernardino County (Riverside North Basin) and the portion of the Riverside Basin in Riverside County (Riverside South Basin). The SPA overlaps these two basins (RPU 2016).

The Riverside Public Utilities (RPU) Water Division provides water service for the portions of the SPA located within the City of Riverside. RPU's water supply consists primarily of groundwater from the Bunker Hill Basin and the Riverside North and South Subbasins. Secondary sources of water are generated from the Rialto-Colton Basin, recycled water from the Riverside Water Quality Control Plant, and from imported water from the Western Municipal Water District. RPU anticipates that water supply will be adequate through the year 2040 to serve the existing and future population of the City of Riverside (Appendix J).

The City of Colton's water supply consists entirely of groundwater extracted from the Bunker Hill Basin, the Rialto-Colton Basin, and the Riverside North Basin. The City of Colton anticipates that water supply will be adequate through the year 2040 to serve the existing and future population of the City of Colton (Appendix B, Northside Specific Plan Baseline Report).

The Sustainable Groundwater Management Act (SGMA) classifies the Riverside-Arlington Subbasin as very low priority in regards to enacting a sustainable groundwater management plan (DWR 2019). This low priority classification likely reflects the fact that the basin is adjudicated, indicating that groundwater rights have been specifically allocated to various entities through judicial proceedings. The RPU Water Division, the primary water provider to the project area, classifies the Riverside North Basin as currently overdrafted and the Riverside South Basin as projected to be overdrafted. For the Riverside North and South Basins, the Western-San Bernardino Judgment set a 5-year base extraction period of 21,085 acre-feet and 29,663 acre-feet for each basin, respectively (RPU 2016). This 5-year average base period pertains to Riverside County Entities. San Bernardino County Entities also have rights in the Riverside North Basin. The total 5-year average base period production for the Riverside North Basin is 33,729 acre-feet per year, of which 21,085 acre-feet per year is exportable into Riverside County (Herzog, G., personal communication).

Should extractions exceed the base period extraction over a 5-year period, or by more than 20% in a single year, one of Riverside County's local water purveyors, Western Municipal Water District (WMWD), is responsible for replenishment in the following year equal to the excess extractions over a 20% peaking allowance. WMWD's replenishment obligation can be reduced through credits that are available from previous years due to importing water into the basin or production below the base period extraction (RPU 2016 ).

Based on the Santa Ana RWQCB Basin Plan, the SPA is located within the Riverside-A and Riverside-B Groundwater Management Zone, which is listed as having the following existing or potential beneficial uses for groundwater: Municipal or Domestic Supply, Agricultural Supply, Industrial Service Supply, and Industrial Process Supply (SWRCB 2016a; Appendix F, Hydrology and Water Quality Letter Report).

Soils within the SPA are classified by the Natural Resources Conservation Service as Hydrologic Soil Group Type A and B, which are potentially conducive to high infiltration rates for groundwater recharge (Appendix B, Northside Specific Plan Baseline Report).

### **Flood Hazards**

Flooding occurs in the Santa Ana River Basin as a result of both sheet flow and concentrated flows emerging from the San Gabriel and San Bernardino Mountains. Riverside and neighboring towns are more susceptible to flood damage than to any other disaster. Southern California's unpredictable seasonal ranges of rainfall, coupled with geographic and geologic conditions, make these towns particularly vulnerable to flooding, especially during winter months. Conversion of natural areas to pavement and less pervious ground covers makes the effects of storms more intense and potentially damaging. Flash floods, mudslides and creek flooding have all occurred as a result of torrential downpours (City of Riverside 2018).

The City of Colton's location on the Santa Ana River has historically placed it at greater risk from flooding. The construction of the Seven Oaks Dam upriver in 2000 has helped control flood events if not prevent them entirely. In addition, the Federal Emergency Management Agency (FEMA) has determined that approximately two-thirds of the SPA is located within FEMA Flood Zone X, an area with reduced flood risk due to levees. Localized areas located adjacent to Springbrook Creek and University Wash are designated as Special Flood Hazard Area Zone AE, which is the base floodplain where base flood elevations are provided; see Figure 3.9-4, FEMA Flood Map(FEMA 2008, 2019). In addition, the City of Colton and the City of Riverside have determined that regions neighboring Springbrook Wash are located in the 100-year flood plain (City of Colton 2019; City of Riverside 2018). A 100-year flood is defined as a flood having a one percent chance of being equal or exceeded in any given year.

In 2005, construction of the Seven Oaks Dam, located at the base of the San Bernardino Mountains, was completed as part of various Santa Ana River Mainstem projects, which aim to provide the flood protection for the millions of residents downstream within San Bernardino, Riverside, and Orange Counties. As a result of this improvement, the Riverside County Flood Control and Water Conservation District is currently processing a Physical Map Revision through FEMA to update both the hydrologic and hydraulic analysis for the Santa Ana River to reflect changes related to the construction of the Seven Oaks Dam upstream. The SPA is protected by the Riverside 2 Levee System, located along the eastern bank of the Santa Ana River, which is currently a provisionally accredited levee pursuant to the current FEMA Flood Insurance Rate Map (FIRM). This levee system may become certified once Physical Map Revisions of the project site have been approved by FEMA (Appendix F, Hydrology and Water Quality Letter Report).

### ***Highgrove Channel***

Based on a hydrologic analysis of the SPA (Appendix F, Hydrology and Water Quality Letter Report), Highgrove (or Main Street) Channel within the SPA currently cannot accommodate a 100-year flooding event. Highgrove Channel conveys drainage from Grand Terrace to the east and discharges into the Santa Ana River to the west. No detailed hydraulic modeling has been prepared and approved by FEMA for the Highgrove Channel reach within the SPA; however, a detailed study has been prepared upstream of the SPA. FEMA has requested that a detailed hydraulic study be performed on the tributaries within the SPA, specifically Highgrove Channel, to verify the 100-year floodplain limits.

As a result of the FEMA request, the Riverside County Flood Control and Water Conservation District is in the process of preparing detailed hydraulic modeling of Highgrove Channel, using the effective FEMA hydrology, which is the 100-year peak flow rate of 2,000 cubic feet per second (cfs). Preliminary findings indicate that the existing concrete channel does not have sufficient capacity to convey 2,000 cfs and that there exists a split flow condition at the transition from an earthen channel to concrete channel at Old Pellissier Road/Orange Street. At this location, approximately 1,000 cfs flows overtop the creek banks and are redirected in a southerly direction towards the Springbrook Wash during larger storm events. See Figure 3.9-5, Hydrology Analysis Flood Map, and Appendix F, Hydrology and Water Quality Letter Report. The channel overflow is due to a lack of capacity of the channel itself, as well as a lack of capacity where the earthen channel traverses under the access road from Orange Street onto the Pellissier Ranchy property (Rick Engineering, personal communication).

As a result of the wide floodplain in areas where Highgrove Channel overtops its banks, a substantial amount of flow attenuation is provided within the AB Brown Sports Complex and adjacent, mostly undeveloped land north of Garner Road, prior to intersecting with Springbrook Wash, thereby reducing peak flow rates. Despite the flow attenuation contributing in reducing the peak flow rate, there is still a substantial amount of runoff flowing toward Springbrook Wash, which is not accounted for in the current FEMA FIRMs. This has negative flooding impacts on the downstream reach of Springbrook Wash through the length of the SPA (Appendix F, Hydrology and Water Quality Letter Report).

### ***Springbrook Wash***

Springbrook Wash serves as the primary stormwater conveyance system for the SPA and drains an off-site area located east of I-215. FEMA has mapped this drainage as an AE drainage system, which should convey a 100-year peak flow rate of 1,000 cfs. However, the existing trapezoidal earthen channel between Orange Street and Main Street is only capable of conveying approximately 100 cfs, resulting in frequent channel overtopping, even during relatively small storm events, thereby flooding adjacent developments. The northwestern industrial area drains to the south via surface flow along Main Street and it appears that it is intended to discharge into Springbrook Wash. However, the dual curb inlets on-grade on each side of the road do not appear to have sufficient capacity to intercept the full peak flow rate (Appendix B, Northside Specific Plan Baseline Report and Appendix F, Hydrology and Water Quality Letter Report).

Based on a preliminary hydraulic analysis by the Riverside County Flood Control and Water Conservation District, the confluence 100-year peak flow rate in Springbrook Wash, south of Garner Road, is approximately 1,500 cfs, which is roughly a 50% increase from FEMA's peak flow rate of 1,000 cfs. This substantially exceeds the capacity of the existing Springbrook Wash channel and creates two flow paths through the Old Golf Course, including one flowing along the western limit of the Old Golf Course and the second meandering through the middle of the Old Golf Course. The two flow paths confluence at the southwest corner of the Old Golf Course before crossing beneath Main Street and discharging into concrete trapezoidal channels downstream (Figure 3.9-5, Hydrology Analysis Flood Map). As a result, the additional runoff exacerbates the flooding conditions adjacent to the Old Golf Course and along Main Street. Many of these flooded areas are not currently mapped within the FEMA 100-year floodplain (Appendix B, Northside Specific Plan Baseline Report and Appendix F, Hydrology and Water Quality Letter Report).

The preliminary hydraulic analysis by the Riverside County Flood Control and Water Conservation District does not extend downstream from the confluence with University Wash, thus, the floodplain mapping is not currently available (Figure 3.9-5, Hydrology Analysis Flood Map). It is anticipated that the remainder of Springbrook Wash leading up to Lake Evans may not have sufficient capacity for the additional runoff and will have similar flooding issues (Appendix F, Hydrology and Water Quality Letter Report).

### ***University Wash***

University Wash is a FEMA Zone AE drainage system, which is conveyed into the SPA through a culvert underneath the I-215 and SR-60 interchange. Based on the FEMA FIRM, it appears the 100-year event would be contained within the channels and culverts, with the exception of the transition from open channel to culvert near Orange Street, as indicated by the wide FEMA-mapped 100-year floodplain (Figure 3.9-4, FEMA Flood Map).

### **Stormwater Infrastructure**

Within the SPA, there is a general lack of local storm drain infrastructure on the northern half; therefore, runoff is primarily conveyed along streets until it reaches a defined drainage channel. Most of these areas drain towards Main Street, which extends through the northwest and southeast portion of the SPA, and runoff is conveyed along Main Street before discharging into Springbrook Wash (Figure 3.9-2, Drainage Conditions) (Appendix F, Hydrology and Water Quality Letter Report).

### Dam Inundation

There are more than 87,000 dams in the United States and approximately one-third of those dams pose a high or significant hazard to life and property if failure occurs (FEMA 2016). While there are no dams in Colton, the city faces a risk from the failure of the Seven Oaks Dam, located approximately 12 miles northeast of Colton on the Santa Ana River. The hazard zone for failure of the Seven Oaks Dam covers the Santa Ana River floodway and areas on either side. Based on the City of Colton's Flood Zone map, the entire SPA is susceptible to dam inundation. However, the actual area affected by any failure of Seven Oaks Dam would depend on the nature of the failure and the amount of water impounded by the dam at the time. With that said, new dams, like the Seven Oaks Dam are engineered to minimize the risk of catastrophic failure. As Seven Oaks Dam only impounds water during flood events, dam failure would likely only create a substantial hazard during or shortly after a flood. There is some risk of Seven Oaks Dam experiencing failure, but the risk is likely very low (City of Colton 2019). Additionally, it should be noted that neither the County of Riverside Flood Hazard Areas Map nor the County of San Bernardino Hazard Map include the SPA in an area that is susceptible to flooding from dam failure.

### 3.9.2 Relevant Plans, Policies, and Ordinances

#### Federal

##### *Clean Water Act*

Increasing public awareness and concern for controlling water pollution led to enactment of the Federal Water Pollution Control Act Amendments of 1972. As amended in 1977, this law became commonly known as the Clean Water Act (CWA) (33 USC 1251 et seq.). The objective of the CWA is to restore and maintain the chemical, physical, and biological integrity of the Nation's waters. The CWA established basic guidelines for regulating discharges of pollutants into the waters of the United States. The CWA requires that states adopt water quality standards to protect public health, enhance the quality of water resources, and ensure implementation of the CWA.

##### **Section 303 of the CWA (Beneficial Use and Water Quality Objectives)**

The Santa Ana RWQCB is responsible for the protection of the beneficial uses of waters within the proposed project area in Riverside and San Bernardino Counties. The RWQCB uses its planning, permitting, and enforcement authority to meet its responsibilities adopted in the Basin Plan to implement plans, policies, and provisions for water quality management.

In accordance with state policy for water quality control, the RWQCB employs a range of beneficial use definitions for surface waters, groundwater basins, marshes, and mudflats that serve as the basis for establishing water quality objectives and discharge conditions and prohibitions. The Basin Plan for the Santa Ana Region has identified existing and potential beneficial uses supported by the key surface water drainages throughout its jurisdiction. Under CWA Section 303(d), the State of California is required to develop a list of impaired water bodies that do not meet water quality standards and objectives. A Total Maximum Daily Load (TMDL) defines how much of a specific pollutant/stressor a given water body can tolerate and still meet relevant water quality standards. The RWQCB has developed TMDLs for select reaches of water bodies.

### **Section 401 of the CWA (Water Quality Certification)**

Section 401 of the CWA requires that an applicant for any federal permit (e.g., a U.S. Army Corps of Engineers [ACOE] Section 404 permit) obtain certification from the state, requiring that discharge to waters of the United States would comply with provisions of the CWA and with state water quality standards. For example, an applicant for a permit under Section 404 of the CWA must also obtain water quality certification per Section 401 of the CWA. Section 404 of the CWA requires a permit from the ACOE prior to discharging dredged or fill material into waters of the United States, unless such a discharge is exempt from CWA Section 404. For the project area, the Santa Ana RWQCB must provide the water quality certification required under Section 401 of the CWA.

### **Section 402 of the CWA (National Pollutant Discharge Elimination System)**

The CWA was amended in 1972 to provide that the discharge of pollutants to waters of the United States from any point source is unlawful unless the discharge is in compliance with a National Pollutant Discharge Elimination System (NPDES) permit. The NPDES permit program, as authorized by Section 402 of the CWA, was established to control water pollution by regulating point sources that discharge pollutants into waters of the United States (33 USC 1342). In the state of California, the EPA has authorized the State Water Resources Control Board (SWRCB) permitting authority to implement the NPDES program.

Regulations (Phase II Rule) that became final on December 8, 1999, expanded the existing NPDES Program to address stormwater discharges from construction sites that disturb land equal to or greater than 1.0 acre and less than 5.0 acres (small construction activity). The regulations also require that stormwater discharges from small municipal separate storm sewer systems (MS4s) be regulated by an NPDES General Permit for Storm Water Discharges Associated with Construction Activity, Order No. 99-08-DWQ. The Construction General Permit requires the development and implementation of a Stormwater Pollution Prevention Plan (SWPPP), which describes Best Management Practices (BMPs) the discharger would use to protect stormwater runoff. The SWPPP must contain a visual monitoring program, a chemical monitoring program for “non-visible” pollutants to be implemented if there is a failure of BMPs, and a sediment-monitoring plan if the site discharges directly to a water body listed on the 303(d) list for sediment. Routine inspection of all BMPs is required under the provisions of the Construction General Permit. On September 2, 2009, the SWRCB issued a new NPDES General Permit for Storm Water Associated with Construction Activities (Order No. 2009-0009-DWQ, NPDES No. CAS000002), that became effective July 1, 2010.

### **Section 404 of the Clean Water Act**

Section 404 of the CWA established a permitting program to regulate the discharge of dredged or filled material into waters of the U.S., which include wetlands adjacent to national waters (33 USC 1344). This permitting program is administered by the ACOE and enforced by the Environmental Protection Agency (EPA). For more information on Section 404 of the CWA, see Section 3.3, Biological Resources, of this Program Environmental Impact Report (EIR).

### **National Flood Insurance Program**

The National Flood Insurance Act of 1968 established the National Flood Insurance Program in order to provide flood insurance within communities that were willing to adopt floodplain management programs to mitigate future flood losses. The Act also required the identification of all floodplain areas within the U.S. and the establishment of flood-risk zones within those areas. FEMA is the primary agency responsible for administering programs and

coordinating with communities to establish effective floodplain management standards. FEMA is responsible for preparing FIRMs that delineate the areas of known special flood hazards and their risk applicable to the community. The program encourages the adoption and enforcement by local communities of floodplain management ordinances that reduce flood risks. In support of the program, FEMA identifies flood hazard areas throughout the United States on FEMA flood hazard boundary maps.

### ***Federal Antidegradation Policy***

The Federal Antidegradation Policy (40 CFR 131.12) requires states to develop statewide antidegradation policies and identify methods for implementing them. Pursuant to the Code of Federal Regulations (CFR), state antidegradation policies and implementation methods shall, at a minimum, protect and maintain: (1) existing in-stream water uses; (2) existing water quality where the quality of the waters exceeds levels necessary to support existing beneficial uses, unless the state finds that allowing lower water quality is necessary to accommodate economic and social development in the area; and (3) water quality in waters considered an outstanding national resource.

### ***Federal Guidelines for Emergency Action, FEMA Publication No. 64***

These guidelines provide guidance to help dam owners, in coordination with emergency management authorities, effectively develop and exercise Emergency Action Plans for dams. The guidelines encourage (1) the development of comprehensive and consistent emergency action planning to protect lives and reduce property damage and (2) the participation of emergency management authorities and dam owners in emergency action planning.

### ***Federal Guidelines for Dam Safety Risk Management, FEMA Publication No. 1025***

These guidelines enable Federal agencies to use the general principles of risk management to make risk-informed decisions. The agencies work to develop and maintain consistent application of risk analysis, risk assessment, risk management, and risk communication, using equivalent procedures and tools. Risk estimates typically reflect the risk at a given dam at the snapshot in time when the risk analysis is performed. Risk management includes structural and nonstructural actions on a given dam, as well as activities such as routine and special inspections, instrumented monitoring, structural analyses, site investigations, development and testing of emergency action plans, and many other activities.

## **State**

### ***Sustainable Groundwater Management Act***

On September 16, 2014, Governor Jerry Brown signed into law a three-bill legislative package—Assembly Bill 1739 (Dickinson), Senate Bill (SB) 1168 (Pavley), and SB 1319 (Pavley)—collectively known as SGMA, which requires governments and water agencies of high- and medium-priority basins to halt overdraft and bring groundwater basins into balanced levels of pumping and recharge. Under SGMA, these basins should reach sustainability within 20 years of implementing their sustainability plans. For critically over-drafted basins, sustainability should be achieved by 2040. For the remaining high- and medium-priority basins, 2042 is the deadline. Through SGMA, the California Department of Water Resources provides ongoing support to local agencies through guidance, financial assistance, and technical assistance. SGMA empowers local agencies to form Groundwater Sustainability Agencies (GSAs) to manage basins sustainably, and requires those GSAs to adopt Groundwater Sustainability Plans (GSPs) for crucial (i.e., medium to high priority) groundwater basins in California.

### ***California Water Code, Division 3. Dams and Reservoirs, Sections 6101-6102***

These regulations require dam owners to maintain records of, and to report on, maintenance, operation, staffing, and engineering and geologic investigations and to issue orders as necessary to secure maintenance and operations to safeguard life and property. The owner of a dam, or his agent, shall fully and promptly advise the Department of Water Resources of any sudden or unprecedented flood or unusual or alarming circumstance or occurrence affecting the dam or reservoir. These regulations require the Department of Water Resources to periodically inspect dams and reservoirs for the purpose of determining their safety. If required, the dam owner shall perform work necessary to secure maintenance and operation that will safeguard life and property.

### ***Governor's Office of Emergency Services, California Code of Regulations, Title 19 - Public Safety, Division 2 – Office of Emergency Services, Chapter 2 – Emergencies and Major Disaster, Subchapter 4 – Dam Inundation Mapping Procedures.***

These regulations were adopted to implement the provisions of Government Code Section 8589.5, which provide the standards for producing and submitting an inundation map, acquiring a waiver from the inundation mapping requirement, and administering the program. These regulations are not applicable to those structures identified as Debris Basins in Department of Water Resources Division of Safety and Dams Bulletin 17-00, dated July 2000. However, these regulations are not intended to limit the authority of the Governor's Office of Emergency Services, or any appropriate public agency, to act under the police power of the state, when necessary, to protect life and property from a threatened or actual dam failure.

### ***California Porter-Cologne Water Quality Control Act***

Since 1973, the California SWRCB and its nine RWQCBs have been delegated the responsibility for administering permitted discharge into the waters of California. The SPA falls within the jurisdiction of the Santa Ana RWQCB. The Porter-Cologne Water Quality Act (California Water Code section 13000 et seq.; California Code of Regulations, Title 23, Chapter 3, Chapter 15) provides a comprehensive water-quality management system for the protection of California waters. Under the Act, "any person discharging waste, or proposing to discharge waste, within any region that could affect the quality of the waters of the state" must file a report of the discharge with the appropriate RWQCB. Pursuant to the Act, the RWQCB may then prescribe "waste discharge requirements" that add conditions related to control of the discharge. Porter-Cologne defines "waste" broadly, and the term has been applied to a diverse array of materials, including non-point source pollution. When regulating discharges that are included in the Federal Clean Water Act, the state essentially treats Waste Discharge Requirements and NPDES as a single permitting vehicle. In April 1991, the State Water Resources Control Board and other state environmental agencies were incorporated into the CalEPA.

The RWQCB regulates urban runoff discharges under the NPDES permit regulations. NPDES permitting requirements cover runoff discharged from point (e.g., industrial outfall discharges) and nonpoint (e.g., stormwater runoff) sources. The RWQCB implements the NPDES program by issuing construction and industrial discharge permits.

Under the NPDES permit regulations, BMPs are required as part of a SWPPP. The EPA defines BMPs as "schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the pollution of Waters of the United States." BMPs include treatment requirements, operating procedures, and practices to control site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage" (40 CFR 122.2).

### ***California Antidegradation Policy***

The California Antidegradation Policy, otherwise known as the *Statement of Policy with Respect to Maintaining High Quality Water in California*, was adopted by the SWRCB (State Board Resolution No. 68-16) in 1968. Unlike the Federal Antidegradation Policy, the California Antidegradation Policy applies to all waters of the state (e.g., isolated wetlands and groundwater), not just surface waters. The policy states that whenever the existing quality of a water body is better than the quality established in individual Basin Plans, such high quality shall be maintained, and discharges to that water body shall not unreasonably affect present or anticipated beneficial use of such water resource.

### ***California Toxics Rule***

The U.S. Environmental Protection Agency (USEPA) has established water quality criteria for certain toxic substances via the California Toxics Rule. The California Toxics Rule established acute (i.e., short-term) and chronic (i.e., long-term) standards for bodies of water, such as inland surface waters and enclosed bays and estuaries, that are designated by each RWQCB as having beneficial uses protective of aquatic life or human health.

### ***California Water Code***

The California Water Code includes 22 kinds of districts or local agencies with specific statutory provisions to manage surface water. Many of these agencies have statutory authority to exercise some forms of groundwater management. For example, a Water Replenishment District (Water Code Section 60000 et seq.) is authorized to establish groundwater replenishment programs and collect fees for that service, while a Water Conservation District (Water Code Section 75500 et seq.) can levy groundwater extraction fees. Through special acts of the Legislature, 13 local agencies have been granted greater authority to manage groundwater. Most of these agencies, formed since 1980, have the authority to limit export and control some in-basin extraction upon evidence of overdraft or the threat of an overdraft condition. These agencies can also generally levy fees for groundwater management activities and for water supply replenishment.

### ***Assembly Bill 3030 - Groundwater Management Act***

In 1992, AB 3030 was passed which increased the number of local agencies authorized to develop a groundwater management plan and set forth a common framework for management by local agencies throughout California. These agencies could possess the same authority as a water replenishment district to “fix and collect fees and assessments for groundwater management” (Water Code Section 10754), provided they receive a majority of votes in favor of the proposal in a local election (Water Code Section 10754.3).

### **Local**

#### ***Western-San Bernardino Judgment***

An important management consideration that affects RPU’s groundwater production in several basins is the Western-San Bernardino Judgment (Western Municipal Water District of Riverside County v. East San Bernardino County Water District, Case No. 78426). The Western-San Bernardino Judgment addresses groundwater management within the Rialto-Colton Basin, Riverside-Arlington basin, and the San Bernardino Basin Area (SBBA), which contains the Lytle Basin and the Bunker Hill Basin. The Western-San Bernardino Judgment was established at the same time as the Orange County Judgment (Orange County Water District v. City of Chino, et al., Case No.

117 628), to settle rights within the upper Santa Ana River watershed and to ensure resources would be sufficient to meet flow obligations in the lower Santa Ana River set by the Orange County Judgment. The Western-San Bernardino Judgment established the entitlements and groundwater replenishment obligations of the two major water agencies, San Bernardino Valley Municipal Water District (Valley District) and Western Municipal Water District of Riverside County. The Western-San Bernardino Judgment provides:

- A determination of the safe yield of the SBBA;
- Establishment of specific amounts of water that can be extracted from the SBBA by plaintiff parties (parties in Riverside County);
- Valley District must provide replenishment for extractions from the SBBA by non-plaintiffs (entities in the Valley District service area) in aggregate exceeding 72.05% of the safe yield, which is 167,228 acre-feet per year;
- WMWD must replenish the Rialto-Colton and Riverside-Arlington basins if extractions for use in Riverside County in aggregate exceed certain specific amounts; and
- Valley District must replenish the Rialto-Colton and Riverside-Arlington basins if water levels are lower than certain specific water level elevations in specified wells.

#### ***San Bernardino County MS4 Permit***

The City of Colton is a co-permittee under the NPDES Permit and Waste Discharge Requirements for the San Bernardino County Flood Control District, the County of San Bernardino, and the Incorporated Cities of San Bernardino County within the Santa Ana Region (Order No. R8-2010-0036; NPDES No. CAS618036) (County MS4 Permit). The NPDES permit prohibits discharges, sets limits on pollutants being discharged into receiving waters, and requires implementation of technology-based standards. The NPDES permit requires all new development and significant redevelopment projects to incorporate Low Impact Development (LID) BMPs to the maximum extent practicable, to reduce the discharge of pollutants to receiving waters.

Under the NPDES permit, the City of Colton, as a co-permittee, is responsible for the management of storm drain systems within its jurisdiction. The City is required to implement the Monitoring and Reporting Program, which includes an Integrated Watershed Monitoring Program to support the development of an effective watershed and a regional monitoring program (e.g., TMDL monitoring), and to implement all BMPs outlined in the Municipal Storm Water Management Program, (previously identified as the Drainage Area Management Plan in the County's two prior NPDES permits) and to take any other actions as may be necessary to protect water quality to the maximum extent practicable. The City is required to develop its own Local Implementation Plan, which includes the specific actions the City would undertake to implement the Municipal Storm Water Management Program and the requirements of the NPDES permit.

Priority projects in the City are required to develop and implement a Water Quality Management Plan (WQMP) to reduce pollutants and maintain and reduce downstream erosion and stream habitat from all new development and significant redevelopment projects that fall into one of the categories of priority projects. The co-permittee must ensure that a priority project meets WQMP requirements. Priority projects include: significant redevelopment projects that add or replace 5,000 square feet (sf) or more of impervious surface area; new development projects that create 10,000 sf or more of impervious surface area, including commercial, industrial, residential housing subdivisions, mixed-use, and public projects; new development or significant redevelopment of automotive repair shops; restaurants of 5,000 sf or more; hillside developments of 5,000 sf or more; developments of 2,500 sf or more of impervious surface area adjacent to or discharging directly into Environmentally Sensitive Areas; parking

lots of 5,000 sf or more that are exposed to storm water; new development or significant redevelopment of retail gasoline outlets of 5,000 sf or more, or a projected average daily traffic of 100 or more vehicles per day. In addition, non-priority/non-category projects may be required by the local jurisdiction to implement applicable site design LID and Local Implementation Plan requirements. San Bernardino County has prepared a Technical Guidance Document for Water Quality Management Plans for the preparation of project-specific WQMPs. The WQMP was approved by the SARWQCB on June 21, 2013, and became effective on September 19, 2013.

### ***City of Riverside MS4 Permit***

The City of Riverside, along with other Riverside County cities within the Santa Ana RWQCB and Riverside County, voluntarily applied for and received a permit to discharge stormwater to the Santa Ana River (Order No. R8-2002-0011, NPDES No. CAS 618033). This MS4, originally approved in 1990, is currently under review for its fourth term re-issuance by the Santa Ana RWQCB. The City's MS4 permit regulates activities related to the quality of discharge through the stormwater management program. The City maintains street gutters and catch basins in order to protect fish, plants, and wildlife that use the river and downstream Lake Elsinore water, as well as to protect the recreational uses for people. Some of the City's efforts include site design reviews, construction site inspections, industrial and commercial site inspections, landscape maintenance, facility management, recycling activities, hazardous and electronic waste collection, street sweeping, and traffic congestion management.

### ***City of Colton Municipal Code***

Chapter 14.01, Storm Drains and Floodplain Management, sets forth standards to promote the health, safety, and general welfare of the inhabitants of the City by controlling discharges into the City's storm drain system. These standards include eliminating all non-permitted discharges to the MS4, controlling the discharge to the MS4 from spills, dumping or disposal of materials other than storm water, and reducing pollutants in storm water discharges to the maximum extent practicable.

### ***General Waste Discharge Requirements for De Minimus Discharges***

On June 19, 2015, the Santa Ana RWQCB adopted the General Waste Discharge Requirements for Discharges to Surface Waters that Pose an Insignificant (De Minimus) Threat to Water Quality (Order No. R8-2015-0004, NPDES No. CAG998001). This permit became effective on July 1, 2015. This permit regulates discharge of groundwater and non-storm water construction dewatering waste to surface waters (including estuarine and ocean waters) that pose an insignificant threat to water quality in the Santa Ana Region. Under this permit, discharges must comply with discharge specifications, receiving water and groundwater limitations, and monitoring and reporting requirements detailed in the permit.

### ***City of Riverside Urban Water Management Plan***

The RPU, Water Division, prepared its 2015 Urban Water Management Plan (UWMP) in accordance with the Urban Water Management Planning Act, sections 10610 through 10656 of the California Water Code. This UWMP summarizes RPU's projected retail and wholesale water demands and characterizes the source waters available to meet those demands for the years 2020 through 2040. The plan also describes the reliability of RPU's water supplies and discusses RPU's water shortage contingency plan during a catastrophic event or drought conditions.

### **City of Colton Urban Water Management Plan**

The San Bernardino Valley Regional Water District, who is the wholesale water provider for the City of Colton, has prepared the 2015 UWMP for its service area. This UWMP summarizes the water district’s projected retail and wholesale water demands and characterizes the source waters available to meet those demands for the years 2020 through 2040. The plan also describes the reliability of the water district’s water supplies and discusses a water shortage contingency plan during a catastrophic event or drought conditions.

### ***City of Riverside Municipal Code***

The Riverside Municipal Code contains several provisions regulating the discharge of stormwater and changes in hydrology. For example, Title 17 of the Code governs grading activities in the City. The Grading Code’s purpose, in part, is to “regulate hillside and arroyo grading in a manner which minimizes the adverse effects of grading on natural landforms, soil erosion, dust control, water runoff and construction equipment emissions.” Most grading exceeding one acre requires a permit from the City. To obtain a permit, applicants must supply a grading plan, and if applicable, must demonstrate compliance with the Construction General Permit described above.

In addition, Title 14, Public Utilities, Chapter 14.12 regulates discharges into the City’s sewer and storm drain systems, and implements the City’s requirements under the MS4 permit. Among other things, the Chapter prohibits discharges to the City’s sewer and storm drain systems that contain pollutants or that would impair the operation of those systems. The Chapter also contains specific regulations for industrial dischargers. Finally, that Chapter gives the City enforcement authority to declare violations, apply penalties, and impose stop-work orders, monitoring requirements and other enforcement mechanisms.

The Santa Ana Watershed Project Authority completed a study supported by the Nitrogen/TDS Task Force, which is a consortium of water supply and wastewater management agencies in the region. The Task Force studied nitrogen and TDS management issues in the watershed, including water quality objectives and regulatory approaches to recharge and wastewater reclamation. Sampling and computer modeling for the Santa Ana River Basin by the RWQCB indicate that levels of total dissolved solids/minerals (TDS) and nitrogen (mainly in the form of nitrate) in the Santa Ana River exceeded water quality objectives or would do so in the future without suitable management. Based on this study, the revised Basin Plan objectives for TDS and nitrogen were adopted by the RWQCB in 2004.

### ***City of Colton General Plan***

#### **Safety Element**

In December 2018 the City of Colton adopted its Safety Element of the General Plan (City of Colton 2018). Goals and policies relating to Hydrology and Water Quality from the Safety Element are stated below.

#### **Flood Hazards**

**GOAL S-2** Anticipate the risks and mitigate the effects that flood hazards pose to the community.

**Policy S-2.1** Continuously monitor weather conditions, especially during periods of severe drought followed by heavy precipitation.

- Policy S-2** Identify if existing and new structures are located within 100- and 500-year floodplains and take corrective action to minimize the risk of injury or damage from flooding events.
- Policy S-2.3** Identify and pursue funding opportunities to improve infrastructure located within the 500-year floodplain.
- Policy S-2.4** Restrict new development in high-flood risk areas, such as 100- and 500-year floodplains and floodways, unless addressed through adequate flood proofing and mitigation.
- Policy S-2.5** Design and maintain storm drainage infrastructure to accommodate, at minimum, 100-year flood events.
- Policy S-2.6** Coordinate dam failure evacuation plans with the San Bernardino County Flood Control District and San Bernardino County Office of Emergency Services.
- Policy S-2.7** Promote low impact development techniques and strategies as part of the development process, to reduce flooding throughout the city.
- Policy S-2.8** Increase the use of flood insurance for properties within the 100- and 500-year floodplains.
- Policy S-2.9** Periodically update the Floodplain Management Regulations adopted in the Colton Municipal Code.

### ***City of Riverside General Plan***

#### ***Safety Element***

In November 2007, the City of Riverside adopted its Safety Element of their 2025 General Plan as one of the state-required elements that must be included in the General Plan. Goals and policies relating to Hydrology and Water Quality from the Safety Element that are applicable to the proposed plan are stated below. Policies include subsections, which are not included in this section of the EIR, except where particularly relevant to the proposed plan.

**Objective PS-2** Reduce potential flood hazards within Riverside.

- Policy PS-2.1** Reduce flood risks for residents and businesses within urbanized areas, as feasible.
- Policy PS-2.2** Encourage flood control infrastructure that does not reduce the natural character or limit the use of the site.
- Policy PS-2.3** Minimize additional flood risk exposure in developing areas.
- Policy PS-2.4** Identify existing facilities located in the 1% annual chance of flood zone, particularly bridges and potential emergency access routes.

- Policy PS-2.5** Encourage flood control techniques along the Santa Ana River that are harmonious with potential recreational uses in the area.
- Policy PS-2.6** Create and maintain evacuation routes for areas that could be affected by flooding or dam failure, with special emphasis on critical and emergency facilities.
- Policy PS-2.7** Minimize flood risks to the City’s agricultural greenbelt by working with the Riverside County Flood Control and Water Conservation District to identify and implement appropriate flood control measures where feasible.

### *County of Riverside General Plan*

#### Safety Element

In December 2016, the County of Riverside adopted its Safety Element as one of the state-required elements that must be included in the General Plan. The Safety Element was updated in August 2019 (County of Riverside 2019). Goals and policies relating to Hydrology and Water Quality from the Safety Element that are applicable to the proposed plan are stated below. Policies include subsections, which are not included in this section of the EIR, except where particularly relevant to the proposed plan.

#### **Objective PS-2** Reduce potential flood hazards within Riverside.

- Policy PS-2.1** Reduce flood risks for residents and businesses within urbanized areas, as feasible.
- Policy PS-2.2** Encourage flood control infrastructure that does not reduce the natural character or limit the use of the site.
- Policy PS-2.3** Minimize additional flood risk exposure in developing areas.
- Policy PS-2.4** Identify existing facilities located in the 1% annual chance of flood zone, particularly bridges and potential emergency access routes.
- Policy PS-2.5** Encourage flood control techniques along the Santa Ana River that are harmonious with potential recreational uses in the area.
- Policy PS-2.6** Create and maintain evacuation routes for areas that could be affected by flooding or dam failure, with special emphasis on critical and emergency facilities.
- Policy PS-2.7** Minimize flood risks to the City’s agricultural greenbelt by working with the Riverside County Flood Control and Water Conservation District to identify and implement appropriate flood control measures where feasible.

### 3.9.3 Thresholds of Significance

The significance criteria used to evaluate the proposed plan's impacts to hydrology and water quality are based on Appendix G of the California Environmental Quality Act Guidelines. According to Appendix G, a significant impact related to hydrology and water quality would occur if the proposed plan would:

1. Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality.
2. Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the proposed plan may impede sustainable groundwater management of the basin.
3. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:
  - a. result in substantial erosion or siltation on or off site;
  - b. substantially increase the rate or amount of surface runoff in a manner which would result in flooding on or off site;
  - c. create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or
  - d. impede or redirect flood flows.
4. In flood hazard, tsunami, or seiche zones, risk release of pollutants due to proposed plan's inundation.
5. Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.

### 3.9.4 Impacts Analysis

***Would the proposed plan violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?***

#### **Construction**

**Less-than-Significant Impact.** Implementation of the Northside Specific Plan would adhere to local, state, and federal regulations pertaining to water quality standards. This includes adherence to the Construction General Permit that requires future projects over an acre to prepare and implement a SWPPP for construction activities (**CM-HYD-1**). The SWPPP is required to identify BMPs that protect stormwater runoff and ensure avoidance of substantial degradation of water quality. All proposed project demolition and construction activities that would be allowed under the Northside Specific Plan, including installation and realignment of utilities, would be subject to existing regulatory requirements. The City of Colton, City of Riverside, and Riverside County would file a Notice of Intent with the RWQCB to comply with the requirements of the Construction General Permit. This process would include preparation of a SWPPP and incorporation of BMPs to control construction-related erosion and sedimentation in dry weather and stormwater runoff. Typical BMPs that could be incorporated into the SWPPP to protect water quality include the following:

- Diverting off-site runoff away from the construction site
- Vegetating landscaped/vegetated swale areas as soon as feasible following grading activities
- Placing perimeter straw wattles to prevent off-site transport of sediment

- Using drop inlet protection (filters and sand bags or straw wattles), with sandbag check dams within paved areas
- Regular watering of exposed soils to control dust during demolition and construction
- Implementing specifications for demolition/construction waste handling and disposal
- Using contained equipment wash-out and vehicle maintenance areas
- Maintaining erosion and sedimentation control measures throughout the construction period
- Stabilizing construction entrances to avoid trucks from imprinting soil and debris onto SPA and adjoining roadways
- Training, including for subcontractors, on general site housekeeping

Incorporation of required BMPs for materials and waste storage and handling, and equipment and vehicle maintenance and fueling would reduce potential discharge of polluted runoff from construction sites, consistent with the California Green Building Standards Code (CBSC 2019; **CM-GEO-1**). Compliance with existing regulations would prevent violation of water quality standards and minimize the potential for contributing sources of polluted runoff from future development allowed under the Northside Specific Plan. Therefore, impacts to water quality from demolition and construction activities associated with the proposed project would be less than significant.

#### Operations

**Less-than-Significant Impact.** Existing land uses within the SPA include undeveloped, mobile homes, industrial, office park, residential, golf courses, park, and commercial offices. Implementation of the Northside Specific Plan would result in development of the site with additional urban uses, including impermeable surfaces such as roads, parking lots, and buildings, as well as increase the SPA light industrial presence. As a result, the proposed plan would be a source of pollution from incidental spills of vehicle oils and other chemicals that can be conveyed by storm and landscape irrigation flows. The impermeable surfaces would prevent polluted surface waters from absorbing into the ground surface.

The City of Colton is a co-permittee under the NPDES Permit for the San Bernardino County Flood Control District (i.e., County of San Bernardino MS4 Permit). Similarly, the City of Riverside is a co-permittee under the NPDES Permit for the Riverside County Flood Control and Water District (i.e., City of Riverside MS4 Permit). In both cases, the NPDES permit sets limits on pollutants being discharged into waterways and requires all new development and significant redevelopment to incorporate LID features to the maximum extent practicable to reduce the discharge of pollutants into receiving waters (**CM-HYD-2a** and **CM-HYD-2b**). In both counties, priority projects, such as those that would be completed under the Northside Specific Plan, are required to develop and implement a WQMP to reduce pollutants, maintain and reduce downstream erosion, as well as maintain stream habitat from all new development. The WQMP's requirements are specified in the MS4 permits issued to cities and counties within the Santa Ana River watershed (City of Colton 2016; County of Riverside 2019, RCFCWCD 2012).

Implementation of BMPs included in the WQMP would address water quality concerns during project operations, such as inadvertent release of pollutants (e.g., hydraulic fluids and petroleum); improper management of hazardous materials; trash and debris; and improper management of portable restroom facilities (e.g., regular service). In accordance with the California Green Building Standards Code (CBSC 2016; **CM-GEO-1**), project source controls to improve water quality would be provided for outdoor material storage areas, outdoor trash storage/waste handling areas, outdoor loading/unloading dock areas, and building materials areas. Source controls would also include storm drain messages and signage and beneficial landscape irrigation practices.

Compliance with NPDES and MS4 Permits as well as successful implementation of a site-specific SWPPP LID features and a WQMP would ensure that degradation of water quality (surface and ground) would remain minimal and that the proposed plan would meet all waste discharge requirements. Thus, impacts would be less than significant.

***Would the proposed plan substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the proposed plan may impede sustainable groundwater management of the basin?***

### **Groundwater Recharge**

**Less-than-Significant Impact.** The SPA, prior to construction, is largely undeveloped in the northern and middle portion of the site. Soils within the SPA are classified by the Natural Resources Conservation Service as Hydrologic Soil Group Type A and B, which are potentially conducive to high infiltration rates for groundwater recharge. The highly permeable soil, coupled with the proximity to the Santa Ana River, indicates that the SPA is a zone of recharge for the river and the underlying aquifers. Future construction of the proposed plan consists of the build-out of undeveloped land and redevelopment of current infrastructure. Build-out of undeveloped lands would involve converting a large portion of previously pervious soils into impermeable surfaces. As a result, groundwater recharge in this region could be reduced. However, future projects would be required to comply with the LID requirements of the County of San Bernardino MS4 Permit and City of Riverside MS4 Permit (**CM-HYD-2a** and **CM-HYD-2b**). These requirements ensure impacts to groundwater recharge would be less than significant.

### **Groundwater Supplies**

**Less-than-Significant Impact.** As required by the California Urban Water Management Planning Act, the RPU has prepared the 2015 Urban Water Management Plan (UWMP) for its service area, including the Riverside portion of the SPA (RPU 2016). Similarly, the San Bernardino Valley Regional Water District, who is the wholesale water provider for the City of Colton, has prepared the 2015 UWMP for its service area (SBVMWD et al. 2016).

### **Riverside Public Utilities**

The RPU Water Division provides water service for the portions of the SPA located within the City of Riverside. RPU's water supply consists primarily of groundwater from the Bunker Hill Basin and the Riverside North and South Subbasins. Approximately 60% of the water supply originates in the Bunker Hill Basin, which is adjudicated. RPU's water rights are based on the long-term safe yield from the Bunker Hill Basin, which includes wet, dry, and normal periods. RPU's wells are generally located in the section of the basin with the greatest thickness of water bearing layers. Thus, RPU's water supply from the Bunker Hill Basin is considered reliable during single- and multi-year dry periods (RPU 2016).

To increase water supply reliability, RPU intends to augment natural recharge in the Bunker Hill and Riverside Basins through conjunctive use projects. These projects capture excess surface water flows when available and place the water in storage in the groundwater basins, from which it can be withdrawn during dry periods. The quantity of surface water recharge from these projects is dependent on the hydrologic conditions in the Santa Ana River Watershed. However, in wet years, above average recharge will occur and, in dry years, below average recharge will occur. These projects each have inherent storage capacity, whether it is storage capacity behind Seven Oaks Dam or storage within a groundwater basin. Therefore, over a single- or multi-year dry period, the quantity of supply from these projects would only be slightly reduced, because in those dry years, supplemental water can be derived from storage (RPU 2016).

Secondary sources of water are generated from the Rialto-Colton Basin, recycled water from the Riverside Water Quality Control Plant, and from imported water from the WMWD. Recycled water from the Riverside Water Quality Control Plant is not considered subject to reduced availability during dry years. RPU is contracted to receive State Water Project water from Metropolitan Water District, through WMWD. The 2015 State Water Project Delivery Capability Report estimates that on average, State Water Contractors can expect about 60% of their annual maximum entitlement. RPU has implemented several measures to maximize the use of local water resources and eliminate reliance on imported water (RPU 2016).

RPU's 2010 UWMP included a Water Shortage Contingency Plan and three supporting appendices, including: 1) RPU Water Rule #9, Shortage of Water Supply and Interruption of Delivery, also known as the Water Shortage Ordinance; 2) RPU Water Rule #15, Water Waste; and 3) a draft Water Conservation Ordinance that expanded on the Water Shortage Ordinance and was adopted by RPU's Board after the preparation of the 2010 UWMP. The Water Conservation Ordinance amended the Riverside Municipal Code Title 14 and included a detailed description of unreasonable uses of water, RPU's Water Conservation Program, responses to water shortage emergencies, and enforcement and severability (RPU 2016).

An important management consideration that affects RPU's groundwater production in several basins is the Western-San Bernardino Judgment, which addresses groundwater management within the Rialto-Colton Basin, Riverside-Arlington basin, and the SBBA, which contains the Lytle Basin and the Bunker Hill Basin. The Western-San Bernardino Judgment set a 5-year base extraction period of 21,085 acre-feet for the Riverside North Basin and 29,663 acre-feet for the Riverside South Basin. This 5-year average base period pertains to Riverside County Entities. San Bernardino County Entities also have rights in the Riverside North Basin. The total 5-year average base period production for the Riverside North Basin is 33,729 acre-feet per year, of which 21,085 acre-feet per year is exportable into Riverside County. Should extractions exceed the base period extraction over a 5-year period, or by more than 20 percent in a single year, one of Riverside County's local water purveyors, WMWD, is responsible for replenishment in the following year equal to the excess extractions over a 20% peaking allowance. WMWD is also responsible for replenishing the Rialto-Colton and Riverside-Arlington basins if water levels are lower than certain specific water level elevations in specified wells. WMWD's replenishment obligation can be reduced through credits that are available from previous years due to importing water into the basin or production below the base period extraction (RPU 2016).

### ***San Bernardino Valley Regional Water District***

As previously discussed, the San Bernardino Valley Regional Water District is the wholesale water provider for the City of Colton. Similar to the RPU, the 2016 UWMP for the district provides a comparison of the anticipated water supplies and demands through 2040. The participating agencies within the San Bernardino Valley Regional Water District meet most of their demands with local groundwater (about 77%) and surface water (14%). Imported water from the State Water Project is also an important element of the supply portfolio (7%). Recycled water comprises a relatively small part (2%) of existing supplies, but a number of programs are being planned that would increase the use of recycled water. The UWMP has identified adequate supplies to meet anticipated demands through 2040, during normal, single dry year, and multiple dry year scenarios (SBVMWD et al. 2016).

### ***Other Groundwater Management Plans***

In addition to these UWMPs, specific ground water management plans have been completed for these service areas, including the Integrated Regional Water Management Plan for the Upper Santa Ana River Watershed (SBVWCD 2015), One Water One Watershed Integrated Regional Water Management Plan (SAWPA 2019), and the Arlington Basin Groundwater Management Plan (WMWD 2011).

### **Conclusion**

Based on projected RPU and San Bernardino Valley Regional Water District water supplies and demands within their respective service areas, water supplies would be adequate through the year 2040 to serve the existing and future population of the City of Riverside and City of Colton (RPU 2016, SBVMWD et al. 2016). These water purveyors are required to complete updated UWMPs every five years (e.g., 2020, 2025, 2030, etc.), which would provide updated water supply information for projects proposed under the Northside Specific Plan. In addition, with implementation of planned projects aimed at meeting future water demands, coupled with regional groundwater management plans and the regulatory bindings of the Western-San Bernardino Judgement, the proposed Northside Specific Plan would not substantially decrease groundwater supplies or impede sustainable groundwater management of the relevant groundwater basins, as described above. As result, impacts would be less than significant.

***Would the proposed plan substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:***

***a. result in substantial erosion or siltation on or off site;***

**Less-than-Significant Impact.** Implementation of the Northside Specific Plan, including grading and construction of individual projects within the SPA, would not substantially alter the existing drainage pattern of the site or area.

Based on existing FEMA maps and preliminary hydrologic modeling of the SPA, existing stormwater infrastructure is inadequate in conveying 100-year stormwater flows. Upgrades would be necessary to control stormwater runoff during high intensity storm events (see Threshold “b” below). These upgrades would not result in increased runoff velocities and associated erosive scour or siltation on site or off site. The Northside Specific Plan proposes to enhance Springbrook Wash by making it a natural amenity with a continuous (managed) water flow, new landscaping, and a network of trails. The enhanced creek as envisioned would provide more stormwater capacity than current conditions.

As discussed in Threshold “b” below, the most substantial change to existing drainages would be creation of the Highgrove Overflow Channel (per **MM-HYD-2** and **MM-HYD-3**), in order to address flooding impacts associated with overtopping of the existing Highgrove Channel. During larger storm events when the peak flow rate in Highgrove Channel exceeds approximately 1,000 cfs, stormwater would be conveyed through the Highgrove Overflow Channel (Figure 3.9-5). As the overflow channel approaches the AB Brown Sports Complex, the side slope of the channel on the sport field side would need to be flattened out to allow flows to spread out and provide the needed flow attenuation to meet or exceed the flow attenuation benefit currently modeled in the existing condition. This is imperative to preserving the same peak flow rate or less discharging into Springbrook Wash, to minimize the downstream flooding impacts in existing developed areas. Given the relatively flat topography, this channel alignment is not anticipated to result in either substantial erosion or siltation (Appendix F, Hydrology and Water Quality Letter Report). Therefore, alteration of on-site drainages would not result in substantial erosion or siltation and impacts would be less than significant.

- b. substantially increase the rate or amount of surface runoff in a manner which would result in flooding on or off site;**

**Significant and Unavoidable.** Implementation of the Northside Specific Plan would result in development of the site with additional urban uses, including impermeable surfaces such as roads, parking lots, and buildings, as well as increase the SPA light industrial presence. Increased impermeable surfaces would result in increased stormwater runoff, which could exacerbate existing flooding conditions. As previously discussed, neither the Highgrove Channel nor Springbrook Wash can currently accommodate a 100-year flood event. Flood waters that exceed the Highgrove Channel would flow southward as unchanneled, wide spreading runoff. This runoff would likely have negative flooding impacts on the downstream reach of Springbrook Wash through the length of the SPA.

#### **Highgrove Overflow Channel**

Highgrove Channel conveys drainage from Grand Terrace to the east and discharges into the Santa Ana River to the west. Detailed hydraulic modeling of Highgrove Channel has not been prepared and approved by FEMA for the channel reach within the SPA; however, a detailed study has been prepared upstream of the SPA. FEMA has requested that a detailed hydraulic study be performed on the tributaries within the SPA, specifically Highgrove Channel, to verify the 100-year floodplain limits (Appendix F, Hydrology and Water Quality Letter Report).

As a result of the FEMA request, the Riverside County Flood Control and Water Conservation District is in the process of preparing detailed hydraulic modeling of Highgrove Channel, using the effective FEMA hydrology, which is the 100-year peak flow rate of 2,000 cfs. Preliminary findings indicate that the existing concrete channel does not have sufficient capacity to convey 2,000 cfs and that there exists a split flow condition at the transition from an earthen channel to concrete channel at Old Pellissier Road/Orange Street, where approximately 1,000 cfs overflows and is redirected in a southerly direction towards the Springbrook Wash during larger storm events (Figure 3.9-5, Hydrology Analysis Flood Map). The 100-year flood flow rate for this channel is approximately 2,000 cfs (Appendix F, Hydrology and Water Quality Letter Report).

Creation of additional impermeable surfaces in association with SPA development could exacerbate this existing flooding issue. Future development would be required to comply with the applicable MS4 permits and associated LID requirements to control runoff (**CM-HYD-2a** and **CM-HYD-2b**). In addition, future development would comply with mitigation measures requiring upgrades to the storm drain system within the SPA (**MM-HYD-4**) and completion of project-specific hydrology/drainage reports, requiring reduction of post-construction runoff to less than or equal to existing conditions (**MM-HYD-5**). Adherence to MS4 requirements, in combination with mitigation to reduce project-level drainage impacts, would reduce significant impacts related to flooding to a degree, but cannot guarantee that all combined project-level impacts would be below a level of significance. Thus, drainage impacts would be significant and unavoidable (**Impact HYD-1**).

#### **Springbrook Wash**

FEMA has mapped this drainage as an AE drainage system, which is designed to convey a 100-year peak flow rate of 1,000 cfs. However, the existing trapezoidal earthen channel between Orange Street and Main Street is only capable of conveying approximately 100 cfs, resulting in frequent channel overtopping, even during relatively small storm events, thereby flooding adjacent developments. Based on a preliminary hydraulic analysis by the Riverside County Flood Control and Water Conservation District, the confluence

100-year peak flow rate in Springbrook Wash, south of Garner Road, is approximately 1,500 cfs, which is roughly a 50% increase from FEMA's peak flow rate of 1,000 cfs. This substantially exceeds the capacity of the existing Springbrook Wash channel and creates two flow paths through the Old Golf Course, including one flowing along the western limit of the Old Golf Course and the second meandering through the middle of the Old Golf Course (Figure 3.9-5, Hydrology Analysis Flood Map). Many of these flooded areas are not currently mapped within the FEMA 100-year floodplain. Creation of additional impermeable surfaces in association with SPA development could exacerbate this existing flooding issue.

In addition, a preliminary hydraulic analysis by the Riverside County Flood Control and Water Conservation District does not extend downstream from the confluence with University Wash, thus, the floodplain mapping is not currently available (Figure 3.9-5, Hydrology Analysis Flood Map). It is anticipated that the remainder of Springbrook Wash leading up to Lake Evans may not have sufficient capacity for the anticipated 1,500 cfs flows and therefore will have similar flooding issues (Appendix F, Hydrology and Water Quality Letter Report). Therefore, creation of additional impermeable surfaces in association with SPA development could also exacerbate this existing flooding issue.

As stated above, development would be required to comply with the applicable MS4 permits and associated LID requirements to control runoff (**CM-HYD-2a** and **CM-HYD-2b**). In addition, future development would comply with **MM-HYD-4** and **MM-HYD-5**. Adherence to MS4 requirements, in combination with mitigation to reduce project-level drainage impacts, would reduce significant impacts related to flooding to a degree, but cannot guarantee that all combined project-level impacts would be below a level of significance. Thus, drainage impacts would be significant and unavoidable(**Impact HYD-2**).

### **Other Specific Plan Area Drainages**

The northern approximate half of the SPA contains very limited storm drain systems. Stormwater runoff occurs primarily along streets and as overland sheet flow in undeveloped areas. Creation of additional impermeable surfaces in association with SPA development could exacerbate the existing potential for flooding in these areas. As stated above, development would be required to comply with the applicable MS4 permits and associated LID requirements to control runoff (**CM-HYD-2a** and **CM-HYD-2b**). In addition, future development would comply with **MM-HYD-4** and **MM-HYD-5**. Adherence to MS4 requirements, in combination with mitigation to reduce project-level drainage impacts, would reduce significant impacts related to flooding to a degree, but cannot guarantee that all combined project-level impacts would be below a level of significance. Thus, drainage impacts would be significant and unavoidable(**Impact HYD-3**).

- c. *create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or***

**Significant and Unavoidable..** As discussed for Threshold (b), Highgrove Channel and Springbrook Wash are subject to flooding and the northern half of the SPA is generally lacking local storm drain infrastructure. As is, runoff is primarily conveyed along streets until it reaches a defined drainage channel. In addition, much of the existing development predates the storm water quality treatment requirements currently in effect today for new development and redevelopment projects. Also, the SPA is lacking regional detention basins, which could potentially be used for stormwater quality treatment. While the project proposes to improve the Springbrook Arroyo through Subarea 8 that would reduce flooding issues, this improvement is not fully funded or guaranteed to be completed at this time, the completion of this improvement may not occur prior to additional development occurring and this improvement would not

resolve all flooding issues. Proposed Specific Plan related development and redevelopment could exacerbate current deficiencies in stormwater infrastructure by creation of additional impervious surfaces, resulting in contribution of runoff water that would exceed the capacity of existing or planned drainage systems, and provide additional sources of polluted runoff. Adherence to applicable MS4 permits and associated LID requirements to control runoff (**CM-HYD-2a** and **CM-HYD-2b**), as well as adherence to **MM-HYD-4** and **MM-HYD-5**, would reduce drainage impacts, but cannot guarantee that all future combined project-level impacts would be below a level of significance. Therefore, impacts are considered potentially significant and unavoidable (**Impact HYD-4**).

**d. Impede or redirect flood flows?**

**Significant and Unavoidable.** The Riverside County Flood Control and Water Conservation District is currently processing a Physical Map Revision through FEMA to update both the hydrologic and hydraulic analysis for the Santa Ana River to reflect changes related to the construction of the Seven Oaks Dam upstream. The SPA is protected by the Riverside 2 Levee System, located along the eastern bank of the Santa Ana River, which is currently a provisionally accredited levee pursuant to the current FEMA FIRM.

In addition, as previously discussed, neither the Highgrove Channel nor the Springbrook Wash can currently accommodate a 100-year flood event; therefore, portions of the SPA are located within a 100-year flood zone (Figure 3.9-4, FEMA Flood Map). Flood waters that exceed the channels would flow southward as unchannelized, wide spreading runoff. This runoff would likely have negative flooding impacts on the downstream reach of Springbrook Wash through the length of the SPA. Build-out of the undeveloped land and the increase in urbanization of previously developed land would potentially impede or redirect flood flows. Adherence to applicable MS4 permits and associated LID requirements to control runoff (**CM-HYD-2a** and **CM-HYD-2b**), as well as determining flood levels throughout the SPA (**MM-HYD-6**), would reduce flooding impacts, but cannot guarantee that all future project-level impacts or combined project-level impacts of the Northside Specific Plan would be below a level of significance. Impeding and/or redirecting flood flows could increase the potential for flooding downstream of proposed structures within the SPA. Therefore, impacts are considered significant and unavoidable(**Impact HYD-5**).

***In flood hazard, tsunami, or seiche zones, would the proposed plan risk release of pollutants due to proposed plan inundation?***

**Significant and Unavoidable.** The SPA is not located in proximity to the Pacific Ocean and therefore not subject to inundation by tsunami. Similarly, the SPA is not located in proximity to a standing body of water that might be susceptible to a seiche. However, portions of the SPA are located within a flood hazard zone, subject to possible dam inundation and creek bank overflow. The proposed Specific Plan would result in development and renovations adjacent to the 100-year flood hazard areas. Additionally, according to the City of Colton's Flood Zone Map, the proposed plan is susceptible to inundation if the Seven Oaks Dam were to fail. The actual area affected by any failure of Seven Oaks Dam would depend on the nature of the failure and the amount of water impounded by the dam at the time (City of Colton 2019). The proposed Specific Plan includes the build-out of industrial zones, which can use toxic chemicals and other materials that would be detrimental to the neighboring environment should flooding occur. Adherence to applicable MS4 permits and associated LID requirements to control runoff (**CM-HYD-2a** and **CM-HYD-2b**), as well as determining flood levels throughout the SPA (**MM-HYD-6**), would reduce flooding impacts, but cannot guarantee that all future project-level impacts or combined project-level impacts of the Northside Specific Plan would be below a level of significance. Therefore, impacts are considered significant and unavoidable (**Impact HYD-6**).

***Would the proposed plan conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?***

Less-than-Significant Impact. The proposed Specific Plan would be required to comply with the Santa Ana Watershed Protection Program, including the San Bernardino County MS4 Permit and Riverside MS4 Permit (CM-HYD-2a and CM-HYD-2b). In accordance with the City of Colton and City of Riverside requirements, projects proposed as part of the Northside Specific Plan would be required to implement a SWPPP during construction and a WQMP during operations to address water quality (CM-HYD-1). These projects would be required to adhere to local, state, and federal standards to ensure that projects completed as part of the Northside Specific Plan would not conflict with or obstruct implementation of the Santa Ana RWQCB Basin Plan.

With respect to groundwater management, UWMPs completed by the RPU and the San Bernardino Valley Regional Water District have identified adequate supplies to meet anticipated water demands through 2040, during normal, single dry year, and multiple dry year scenarios. The SPA is also governed in accordance with the Groundwater Management Plan for the Riverside Groundwater Basin. The Riverside Public Utilities has several planned projects to meet future water demand needs of the proposed Specific Plan. As such, the proposed Specific Plan would not conflict with or obstruct implementation of a sustainable groundwater management plan. Impacts are considered less than significant.

### 3.9.5 Mitigation Measures

The following mitigation measures shall be implemented to the extent feasible:

- MM-HYD-1 Highgrove Overflow Channel.** Prior to Development Plan Approval for future development within the Northside Specific Plan Subareas 2, 4, 7, and 16 within the Highgrove Channel 100-year Federal Emergency Management Agency (FEMA) flood plain overflow area, and consistent with recommendations by Rick Engineering (2019, Program Environmental Impact Report Appendix F, Hydrology and Water Quality Letter Report), the Highgrove Overflow Channel should be constructed to accommodate/contain overtopping of Highgrove Channel and associated flooding during high intensity rainfall events. The overflow channel should be designed to receive stormwater flows in Highgrove Channel in excess of approximately 1,000 cubic feet per second, and should be designed such that discharge into downstream Springbrook Wash is less than or equal to existing conditions, to prevent downstream flooding impacts in developed areas. Design of the Highgrove Overflow Channel should be completed in coordination with the Riverside County Flood Control and Water Conservation District and the (FEMA).
- MM-HYD-2a Springbrook Wash Enhancement.** Prior to Development Plan Approval for future development within within the Northside Specific Plan Subareas 5, 6, and 9 within the 100-year Federal Emergency Management Agency (FEMA) flood plain, Springbrook Wash should be realigned and/or enlarged in the vicinity of the western boundary of the Former Riverside Golf Course and associated open space, such that the drainage is further from planned Northside Specific Plan development consistent with recommendations by Rick Engineering (2019, Program Environmental Impact Report Appendix F, Hydrology and Water Quality Letter Report). Design of the Springbrook Wash improvements should be completed in coordination with the Riverside County Flood Control and Water Conservation District and FEMA prior to implementation of improvements to this area.

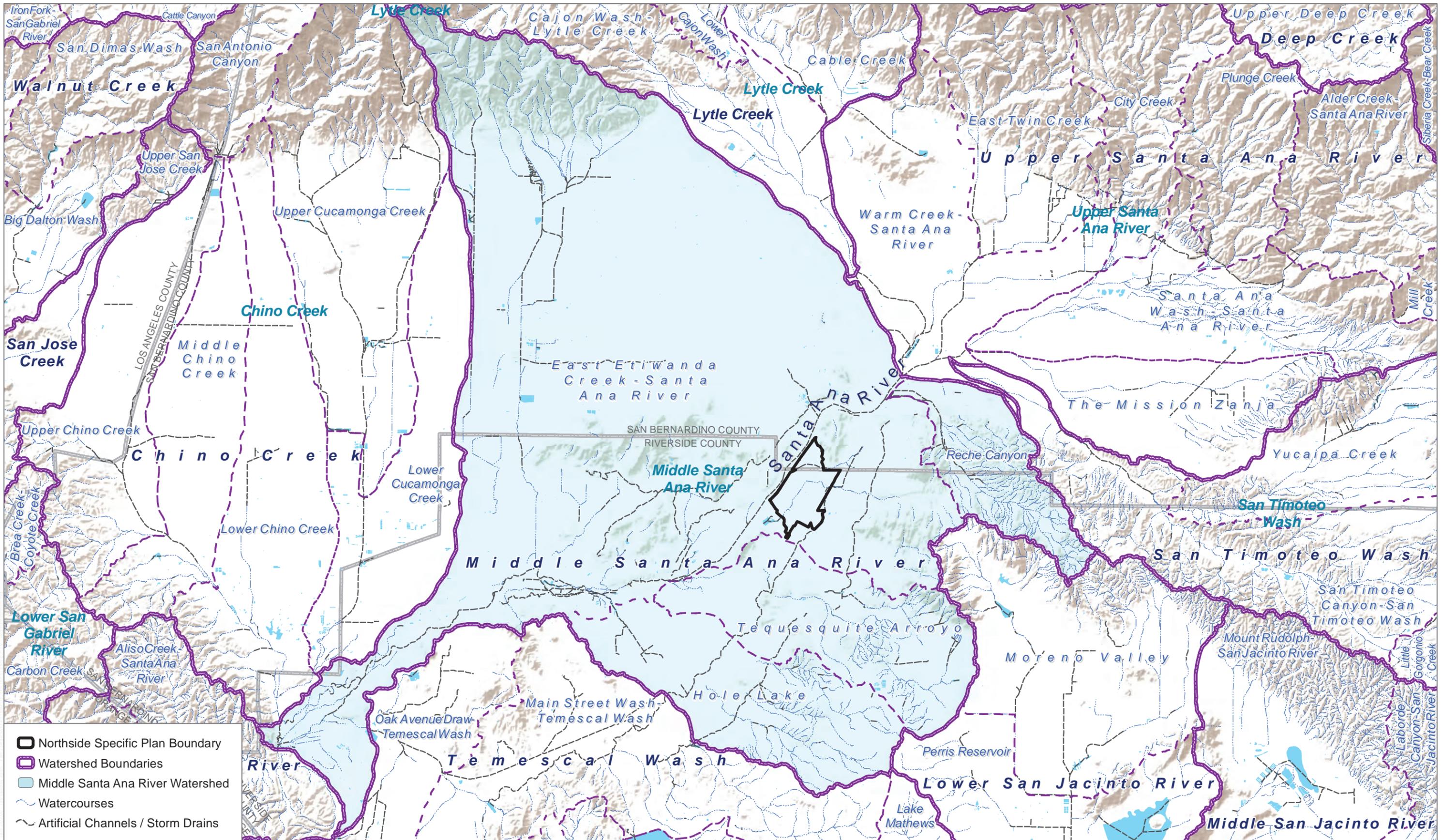
- MM-HYD-2b Springbrook Wash Enhancement.** Prior to Development Plan Approval for future development within the Northside Specific Plan Subarea 7, Springbrook Wash, upstream from the confluence with Highgrove Overflow Channel to Orange Street, should be widened in conjunction with the Northside Specific Plan development on adjacent properties in order to accommodate 100-year flow rates for this reach of 1,000 cfs flows, consistent with recommendations by Rick Engineering (2019, Program Environmental Impact Report Appendix F, Hydrology and Water Quality Letter Report). Design of the Springbrook Wash improvements should be completed in coordination with the Riverside County Flood Control and Water Conservation District and Federal Emergency Management Agency prior to implementation of improvements to this area.
- MM-HYD-2c University Wash Enhancement.** Prior to Development Plan Approval for Subarea 11 just east of Orange Street, a preliminary hydraulic analysis should be completed consistent with recommendations by Rick Engineering (2019, Program Environmental Impact Report Appendix F, Hydrology and Water Quality Letter Report) along Springbrook Wash downstream from the confluence with University Wash in order to determine the flooding potential along this stretch of the creek prior to implementation of improvements to this area. Design of the Springbrook Wash improvements should be completed in coordination with the Riverside County Flood Control and Water Conservation District and Federal Emergency Management Agency prior to implementation of improvements to this area.
- MM-HYD-3a Levee Accreditation.** Prior to a Development Plan Approval within the Northside Specific Plan, within the Riverside Levee 2 flood protection area, and in coordination with Federal Emergency Management Agency (FEMA) approval of Physical Map Revisions or Letter of Map Revision of the Specific Plan Area, Riverside Levee 2 should be accredited by FEMA and shown to effectively protect the Northside Specific Plan Area against 100-year flooding hazards related to the Santa Ana River.
- MM-HYD-3b FEMA Revisions.** A Federal Emergency Management Agency (FEMA) Physical Map Revision or a Letter of Map Revision of the Specific Plan Area should be completed, based on modeling by the Riverside County Flood Control and Water Conservation District, prior to Development Plan Approval of future projects located within the 100-year FEMA flood plain in the Northside Specific Plan Area. Hydrologic modelling in support of the revisions should include, but not be limited to, stormwater runoff within Highgrove Channel, the Highgrove Channel Overflow Channel, Springbrook Wash, and University Wash.
- MM-HYD-4 Storm Drain Enhancement.** Consistent with recommendations by Rick Engineering (2019, Program Environmental Impact Report Appendix F, Hydrology and Water Quality Letter Report), storm drains shall be installed in association with Northside Specific Plan development in areas currently lacking storm drains (see Figure 3.9-2, Drainage Conditions). Storm drain installation shall include, but not be limited to:
1. Extending a backbone storm drain north along Main Street from Springbrook Wash;
  2. Adding a storm drain system for the proposed light industrial and high-tech business park, within the City of Colton, to safely collect and convey runoff into Highgrove Channel;

3. Adding a storm drain system in the proposed transitional business/multifamily residential and medium density residential along Center Street, to collect flows into the proposed Highgrove Overflow Channel (MM-HYD-1); and
4. Providing flood control detention to pre-project stormwater runoff conditions for all proposed new developments in the Specific Plan Area, for all design storms required by the Riverside County Flood Control and Water Conservation District.

Proposed drainage improvements shall be designed per the 1978 Riverside County Flood Control and Water Conservation District Hydrology Manual and in coordination with the Riverside County Flood Control and Water Conservation District.

**MM-HYD-5 Hydrology/Drainage Report.** Prior to the issuance of a building permit for future development within the Northside Specific Plan, a Hydrology/Drainage Report shall be prepared. The Hydrology/Drainage Report shall demonstrate that stormwater runoff flow volume or flow rate, associated with specific projects, would be less than or equal to existing conditions to prevent on- and off-site runoff and flooding. The Hydrology/Drainage Report shall comply with the County of Riverside Design Handbook for Low Impact Development Best Management Practices (County of Riverside 2011) for storm drain planning and design calculations.

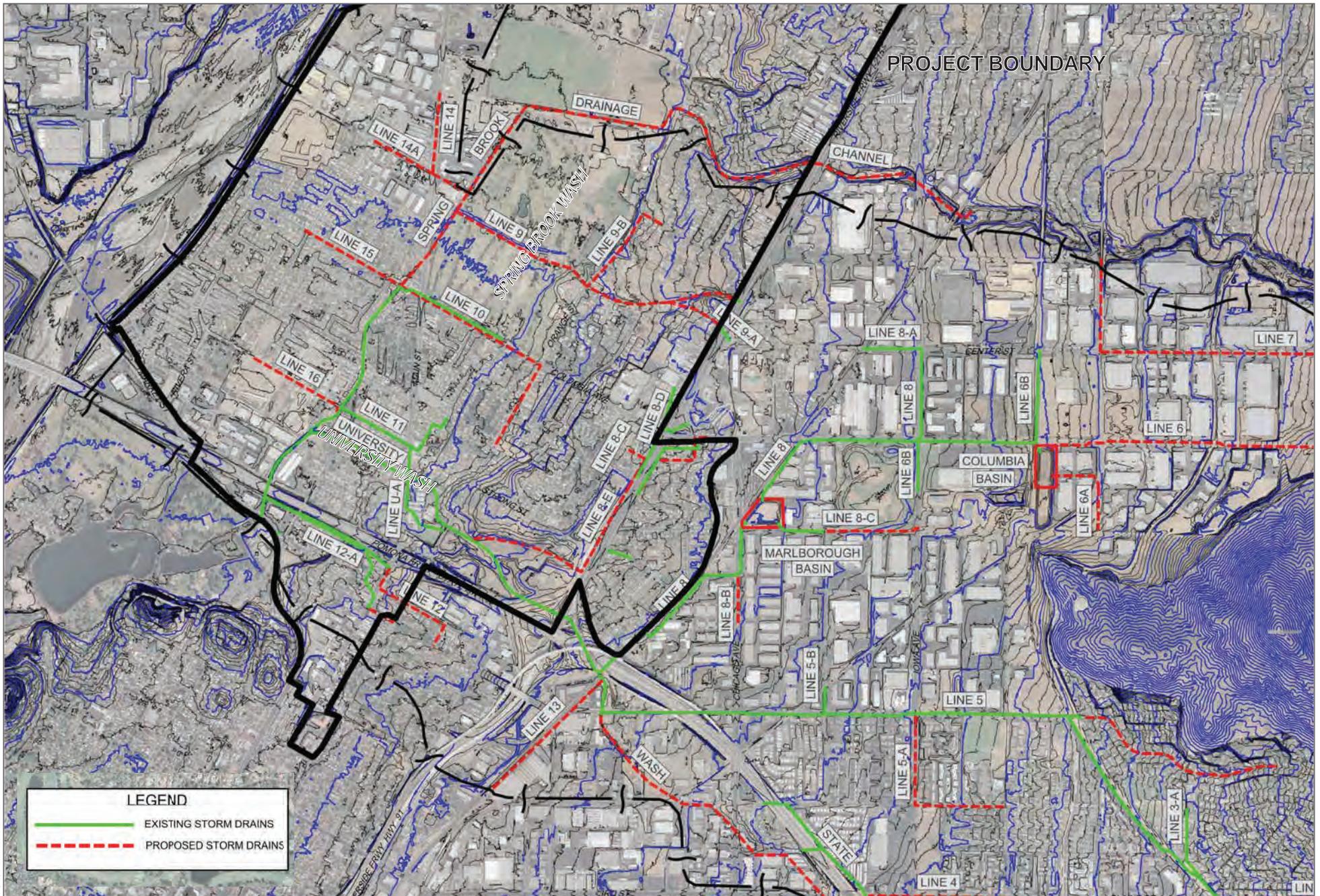
FEMA. In the case of the Santa Ana River, the segment of the Santa Ana River located adjacent to the Northside Specific Plan is within the City of Jurupa Valley. In addition, some of the flood areas are located in the City of Colton. The City of Riverside cannot assure that those jurisdictions will permit the improvement to be made and cannot legally impose such mitigation. As such, flood plain **Impact HYD-5** are considered significant and unavoidable. Storm drain enhancements and completion of project-specific hydrology/drainage analyses within the Northside Specific Plan Area, as outlined by **MM-HYD-4** and **MM-HYD-5**, would prevent flooding associated with increased impervious surfaces and associated increased runoff, such that impacts would be less than significant after mitigation. In addition, determination of flood elevations, as outlined by **MM-HYD-6**, would ensure that new development would be constructed either (1) outside the 100-year FEMA flood plain or (2) a minimum of 2 feet above anticipated flood elevations, as determined by FEMA, such that impacts would be less than significant after mitigation.



SOURCE: USGS NHD WBD 2019

FIGURE 3.9-1

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SOURCE: Riverside County Flood Control and Water Conservation District, July 1967

FIGURE 3.9-2

Drainage Conditions

Northside Specific Plan Program EIR

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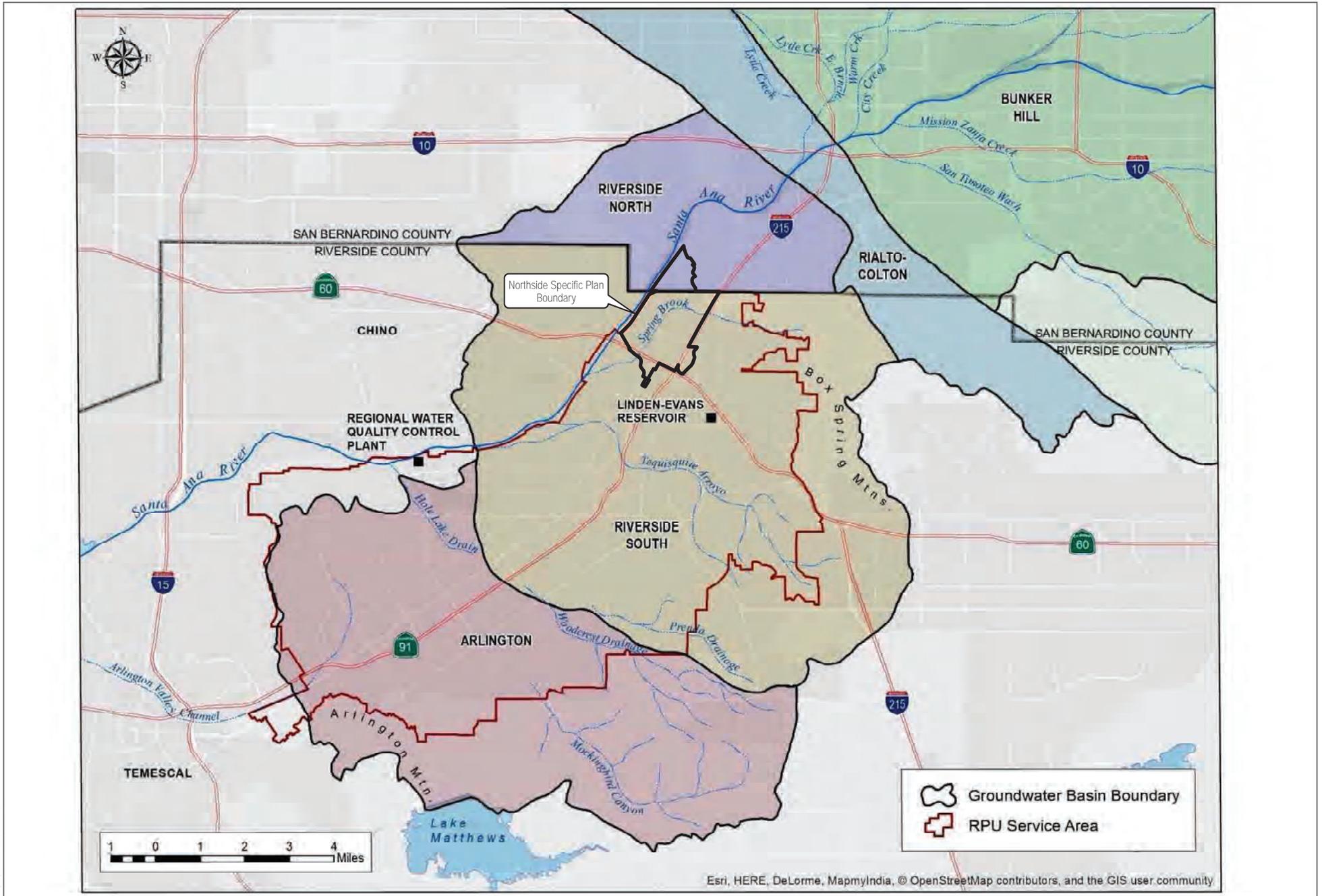
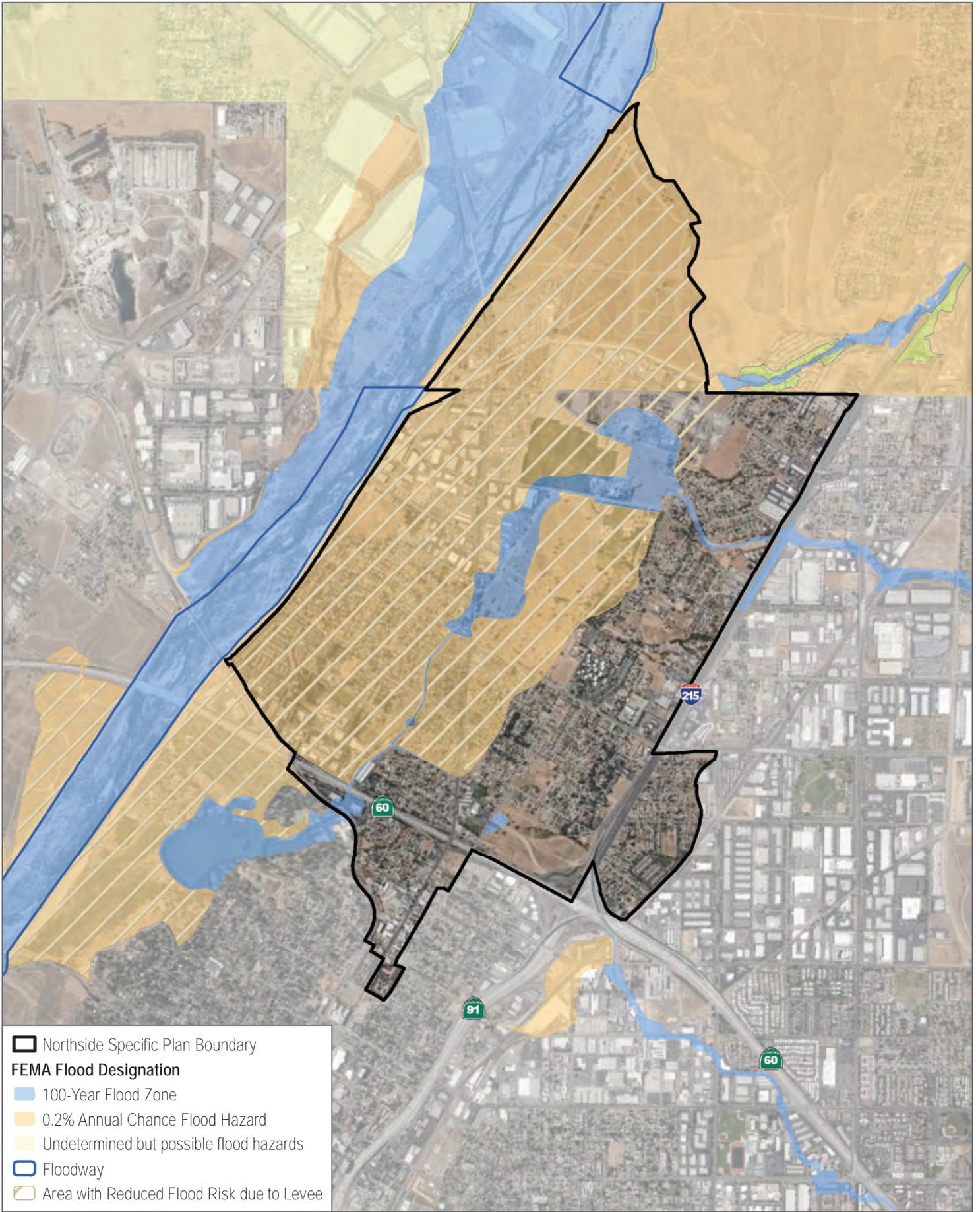


FIGURE 3.9-3

Groundwater Basins

Northside Specific Plan Program EIR

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- Northside Specific Plan Boundary
- FEMA Flood Designation**
- 100-Year Flood Zone
- 0.2% Annual Chance Flood Hazard
- Undetermined but possible flood hazards
- Floodway
- Area with Reduced Flood Risk due to Levee

SOURCE: City of Riverside 2020; FEMA 2018

**FIGURE 3.9-4**

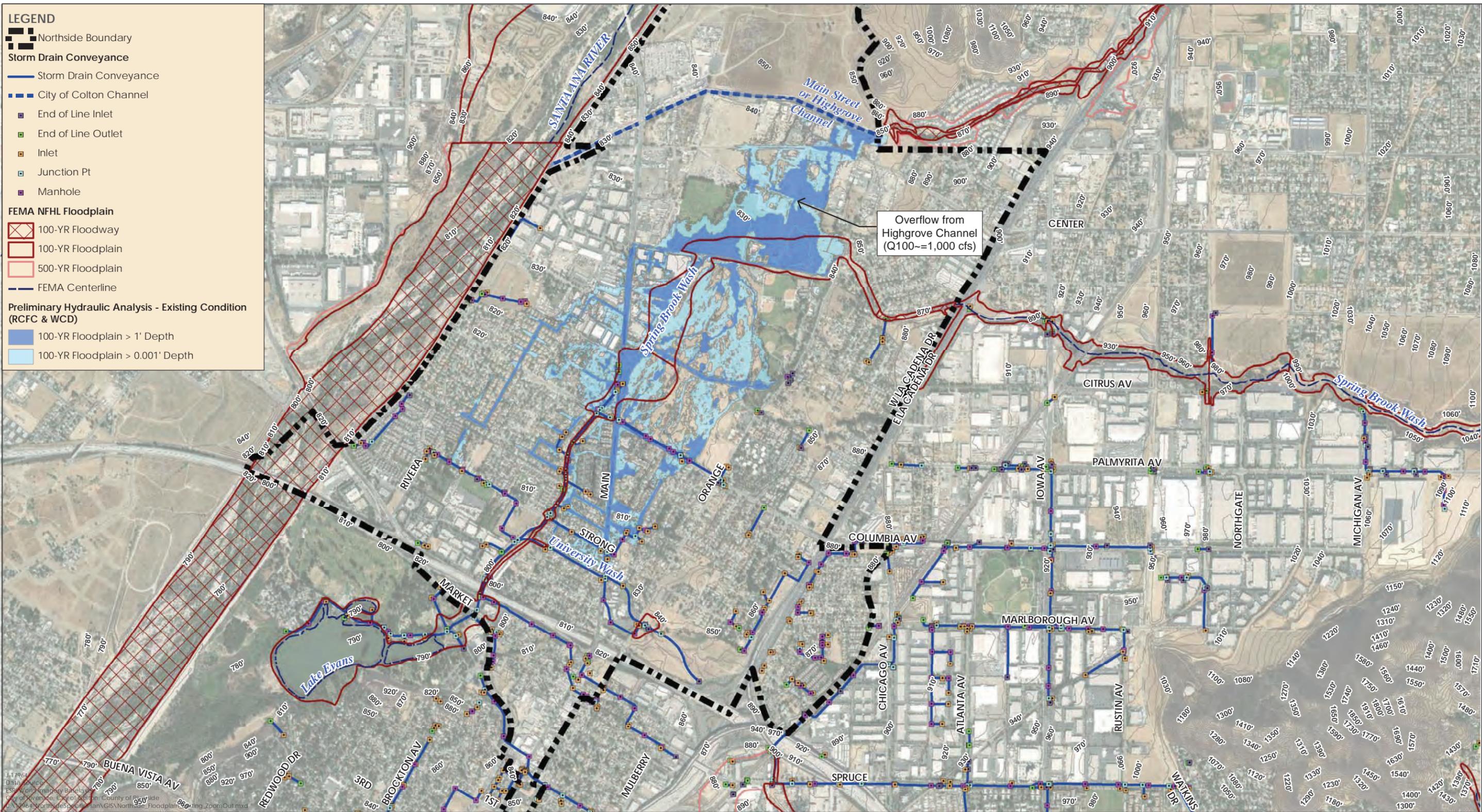
FEMA Flood Map

Northside Specific Plan Program EIR

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**LEGEND**

- Northside Boundary
- Storm Drain Conveyance**
  - Storm Drain Conveyance
  - City of Colton Channel
- End of Line Inlet
- End of Line Outlet
- Inlet
- Junction Pt
- Manhole
- FEMA NFHL Floodplain**
  - 100-YR Floodway
  - 100-YR Floodplain
  - 500-YR Floodplain
  - FEMA Centerline
- Preliminary Hydraulic Analysis - Existing Condition (RCFC & WCD)**
  - 100-YR Floodplain > 1' Depth
  - 100-YR Floodplain > 0.001' Depth



SOURCE: Rick Engineering, 2019

FIGURE 3.9-5

**Hydrology Analysis Flood Map**

Northside Specific Plan Program EIR

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## 3.10 Land Use and Planning

This section describes the existing land use and planning conditions of the project site and vicinity, identifies associated regulatory requirements, evaluates potential impacts, and identifies mitigation measures related to implementation of the Northside Specific Plan. As discussed in Chapter 2, Project Description, the proposed project includes various land use changes within the Northside Specific Plan Area (SPA), as depicted on Figure 2-5, Existing General Plan Land Use Designations and Figure 2-6, Proposed Specific Plan Land Uses. The information and analysis provided in this section draws from the Northside Specific Plan Baseline Opportunities and Constraints Analysis, prepared by Rick Engineering – Community Planning and Sustainable Development (Appendix B).

### 3.10.1 Existing Conditions

The SPA is governed by three jurisdictions; the City of Riverside, City of Colton, and County of Riverside. Each of these jurisdictions has its own designated land uses and zoning regulations. Table 2-1, Existing General Plan Land Use Buildout within the SPA, shows a summary of each jurisdiction's existing land uses. Similarly, Table 3.10-1, Assumed Maximum Theoretical Yield for Existing Land Uses, shows a summary of each jurisdiction's zoning regulations and General Plan land use designations. Figure 2-5, Existing General Plan Land Uses, depicts the current land use designation within the SPA.

The SPA encompasses residential land use designations and a wide variety of existing nonresidential uses. These include, but are not limited to, transit and bus stations, schools, parks, public agency offices, recreation facilities, business and office parks, industrial enterprises, neighborhood-serving commercial establishments, and cultural landmarks. The existing land uses and their approximate acreage within the SPA are listed in Table 2-1, Existing General Plan Land Use Buildout within the SPA.

#### 3.10.1.1 Existing Land Uses

##### **City of Riverside**

##### ***Residential Neighborhoods***

The residential portions of the Northside Neighborhood consist of approximately 4,941 dwelling units (Chapter 2, Project Description). The existing multi-family units within the SPA are concentrated within two areas. These areas are depicted in Subarea 13 on Figure 2-4, Aerial Photograph, north of Columbia Avenue, between Orange Street and Clark Street; and west of Main Street, north of Finly Court and south of Carrotwood Street. These units include apartment complexes, condominiums, and townhomes.

The portion of the SPA south of State Route 60 (SR-60) (Subareas 12 and 13, as shown in Figure 2-4, Aerial Photograph) contains 21.3 acres of residential development, which is located between Market Street, Main Street, and SR-60, and contains approximately 117 single-family residential units. The portion of the SPA east of I-215 contains 42.7 acres of residential development, consisting of approximately 235 single-family dwelling units.

There are three residential land use designations within the City of Riverside that occur within the SPA. These include Medium Density Residential (MDR), Medium High Density Residential (MHDR), and Semi-Rural Residential (SRR).

Medium Density Residential (MDR) allows for the development of single-family homes, town houses and row houses (City of Riverside 2019). This designation has a maximum of 6.2 du/acre, or up to 8.0 du/acre when associated with a Planned Residential Development (PRD) permit (City of Riverside 2019). As seen in Table 2-1, Existing General Plan Land Use Buildout within the SPA, there are approximately 541.75 acres of Medium Density Residential land use designation within the City of Riverside, predominantly along the southern and eastern half of the SPA.

Medium-High Density Residential (MHDR) allows the development of small-lot single-family homes, multi-family units, town houses, row houses and permanent-style mobile home parks (City of Riverside 2019). The maximum density for Medium-High Density Residential is 14.5 du/acre. There is approximately 40 acres of existing Medium-High Density Residential land use designation within the SPA (Table 2-1, Existing General Plan Land Use Buildout within the SPA).

Semi-Rural Residential is intended for single family homes with emphasis on animal keeping. The maximum du/acre is 2.1 du/acre, and the typical du/acre for Semi-Rural Residential land use designations is 1.5. The maximum population density is 6.3 persons/acre (City of Riverside 2019). According to Table 2-1, Existing General Plan Land Use Buildout within the SPA, there is 1 acre of Semi-Rural Residential land use designation within the SPA.

#### ***Commercial and Industrial***

There are four commercial or industrial type land uses within the City of Riverside and within the SPA. These include Commercial (C), Office (O), Business/Office Park (B/OP), and Industrial (I).

The Commercial land use designation provides for retail, sales, service and office uses within the City of Riverside (City of Riverside 2019). According to the City of Riverside’s General Plan 2025 – Land Use and Urban Design Element, the maximum development intensity is a FAR of 0.50. There is approximately 12.64 acres of Commercial land use designation within the SPA (Table 2-1, Existing General Plan Land Use Buildout within the SPA).

Commercial operations within the SPA are limited to one area, at the intersection of Main Street and Strong Street. Existing commercial operations at this location consist of local retail and convenience store options, as well as a gas station and a restaurant. The existing Downtown Specific Plan area (Subarea 11), located south of SR-60, contains a number of retail stores along Main Street. These stores include gas stations, convenience stores, restaurants, small-scale retail shops, and auto repair shops.

The Business/Office Park land use designation is for single or mixed light industrial uses that don’t create nuisances, such as corporate and general business offices, supportive retail and commercial uses, research and development, light manufacturing, light industrial and small warehouse uses (City of Riverside 2019). The maximum intensity of development is a FAR of 1.5. There is approximately 340 acres of Business/Office Park land use designation within the SPA (Table 2-1, Existing General Plan Land Use Buildout within the SPA).

The Office land use designation allows space for various office uses, including general business and medical offices (City of Riverside 2019). The maximum development intensity is a FAR of 1.0 (City of Riverside 2019). There is approximately 35.8 acres of Office land use designation within the SPA (Table 2-1, Existing General Plan Land Use Buildout within the SPA).

There are a number of offices and business parks scattered throughout the SPA. The offices and business parks are found in the following areas:

- The southwest corner of the SPA (within Subarea 17) along Latham Street, between SR-60 and Patricia Beatty Elementary School
- The northwest portion of the SPA (within Subarea 15), bounded by Carter Avenue to the south, the Santa Ana River to the west, Pellissier Ranch to the north, and the Ab Brown Sports Complex to the east
- Areas along West La Cadena Drive near its intersection with Columbia Avenue and Center Street (within Subarea 10)

The Industrial land use designation allows for uses such as large-scale building materials sales, light manufacturing, distribution, warehousing and wholesaling (City of Riverside 2019). The maximum intensity for development is a FAR of 0.6 (City of Riverside 2019). There is approximately 2 acres of Industrial land use designation within the SPA.

The majority of the existing industrial operations are located within the northwest corner of the City of Riverside and within Pellissier Ranch, located in the City of Colton. These operations consist of business park uses, such as supply companies and fence works, auto-oriented shops, auto repair shops, towing services, and junkyards/scrapyards. These industrial operations are concentrated in the northern section of the existing Northside Neighborhood (Subareas 1 and 2), north of the Ab Brown Sports Complex.

### ***Community Amenities and Support Designations***

The Public Parks (P) designation is assigned to City of Riverside, regional and state-owned park areas (City of Riverside 2019). These include large multipurpose fields for community events and informal recreation, areas for active sports play, tot lots, picnic areas, multipurpose sports fields and courts, public golf courses, concessions, community event spaces, and more (City of Riverside 2019). There is approximately 45 acres of Public Park within the SPA (Table 2-1, Existing General Plan Land Use Buildout within the SPA).

The Private Recreation (PR) designation includes private golf courses, equestrian centers and amusement parks that provide opportunities for outdoor recreation (City of Riverside 2019). There is approximately 171 acres of Private Recreation within the SPA (Table 2-1, Existing General Plan Land Use Buildout within the SPA).

There is one park within the SPA: Reid Park-Ruth H. Lewis Center located at 701 Orange Street. This park provides a community center and athletic fields. In addition, there is one existing recreational facility; the Ab Brown Sports Complex, located at 3700 Placentia Lane. The Ab Brown Sports Complex serves as a recreational facility for both the existing Northside Neighborhood and the region and provides numerous athletic playing fields. These facilities are located within Subarea 8 of the SPA.

The Public Facilities and Institutional Uses (PF) designation allows for the development of schools, hospitals, libraries, utilities, the municipal airport, institutional offices, and government institutions (City of Riverside 2019). The maximum intensity of development is a FAR of 1.0 (City of Riverside 2019). There is approximately 18.85 acres of Public Facilities and Institutional Uses within the SPA (Table 2-1, Existing General Plan Land Use Buildout within the SPA).

There are two schools within the SPA: Patricia Beatty Elementary School, located at 4261 Latham Street (within Subarea 15); and Fremont Elementary School, located at 1925 Orange Street (within Subarea 14). The Trujillo Adobe, located within Subarea 16, is a registered California Point of Historical Interest by the Office of Historic Preservation. The building is the last adobe structure of the Spanish-speaking village of La Placita de Los Trujillos, founded by Lorenzo Trujillo in the 1840s. The adobe housed several generations of the Trujillo family until 1957 and was officially listed by the Office of Historic Preservation on January 24, 1968. The remains of the home are now encased in a plywood structure, located at 3669 Center Street.

The Open Space/Natural Resources (OS) designation provides land for the preservation of natural resources, hillsides, and creeks, and also open space protection inclusive of floodways and stormwater retention areas (City of Riverside 2019). The SPA contains approximately 8.4 acres of open space/natural resources, which is confined to a channelized drainage ditch running north to south from the former Riverside Golf Course to SR-60. The City of Riverside, City of Colton, and County of Riverside General Plan Land Use Maps do not designate any additional open space land uses within the SPA.

### ***Mixed Use Designation***

The Downtown Specific Plan (DSP) land use designation is found in Subarea 11 and parts of Subarea 12, both located south of the SR-60 freeway (Figure 2-5, Existing General Plan Designations).

According to the City of Riverside General Plan – Land Use Element, the Downtown Specific Plan (DSP) land use designation is an overlay that allows for a wide range of uses and intensities. Residential, office, commercial, and public facilities uses are all allowable within the Downtown Specific Plan (DSP) land use area.

### **City of Colton**

#### ***Very Low Density Residential (VLDR)***

According to the City of Colton's General Plan – 2013 Land Use Element, Very Low Density Residential designation provides for detached, single-family residences within a density range of 2.1 to 8.0 dwelling units per acre. The typical population density is 7 to 26 persons per acre.

The Very Low Density Residential land use designation is found in a small section of Subarea 1 at the northernmost tip of the SPA. There is approximately 3 acres of designated Very Low Density Residential land use within the SPA (Table 2-1, Existing General Plan Land Use Buildout within the SPA).

#### ***Light Industrial (LI)***

The Light Industrial designation supports fabrication, manufacturing, assembly, distribution, warehouse uses, and supporting commercial and office uses (City of Colton 2013a). The maximum development intensity is a FAR of 0.5 (City of Colton 2013a).

Light Industrial land use dominates the majority of the Pellissier Ranch area (Subareas 1 and 2) (Figure 2-5, Existing General Plan Designations). There is approximately 333 acres of designated Light Industrial land use within the SPA (Table 2-1, Existing General Plan Land Use Buildout within the SPA).

### County of Riverside

The portion of County of Riverside within the SPA contains three land use designations: Medium Density Residential (MDR), Light Industrial (LI), and Commercial Retail (CR).

The Medium Density Residential land use provides for development of single-family detached houses and suburban subdivisions (County of Riverside 2019a). The density ranges from 2.0 to 5.0 du/acre (County of Riverside 2019a). There's approximately 60 acres of designated Medium Density Residential land use within the SPA (Table 2-1, Existing General Plan Land Use Buildout within the SPA). The northeast corner of the SPA is within unincorporated Riverside County (Figure 2-4, Aerial Photograph), and is comprised of 235 single-family/mobile home dwelling units.

The Light Industrial land use designation allows for industrial and related uses such as assembly and light manufacturing, repair and other service facilities, warehousing, distribution centers, and supporting retail uses (County of Riverside 2019a). The building development intensity ranges from 0.25 to 0.6 FAR (County of Riverside 2019a). There is approximately 20 acres of County-designated Light Industrial land use within the SPA (Table 2-1, Existing General Plan Land Use Buildout within the SPA).

The Commercial Retail designation allows for commercial retail uses at the neighborhood, community, and regional level, as well as for professional office and tourist-oriented commercial uses (County of Riverside 2019a). The FAR ranges from 0.2 to 0.35 (County of Riverside 2019a). According to Table 2-1, Existing General Plan Land Use Buildout within the SPA, there are approximately 5 acres of Commercial Retail land use designation within the SPA.

### Underutilized and Vacant Parcels

There are a number of vacant and/or underutilized parcels within the SPA. These parcels include the following:

- The former Riverside County Transportation Commission (RCTC) property, which has recently been entitled with the "Exchange Project."
- The former Riverside Golf Course, currently used for high school cross-country meets.
- Vacant and undeveloped parcels to the north/south of Center Street.
- Pellissier Ranch.
- Vacant parcels in the residential neighborhood east of Orange Street and west of La Cadena Drive.

#### 3.10.1.2 Physical Conditions

Within the SPA, there are approximately 227 parcels that are greater than 1 acre. The overall range of parcel size varies widely, with the largest parcel approximately 84 acres and the smallest parcel approximately 4,000 square feet. Assessor's records indicate that a majority of the parcels are independently owned.

Based on the allowed density and intensity within the SPA (as allowed by the existing Land Use designations outlined in Table 2-1, Existing General Plan Land Use Buildout within the SPA), the maximum theoretical yield for the SPA is approximately 5,969 residential units (Table 3.10-1, Assumed Maximum Theoretical Yield for Existing Land Uses). The maximum allowable square footage of nonresidential building space (i.e., commercial, industrial, office space) is approximately 35,578,897 square feet (Table 3.10-1, Assumed Maximum Theoretical Yield for Existing Land Uses). A breakdown of the theoretical yields within each jurisdiction associated with the SPA is shown in Table 3.10-1, Assumed Maximum Theoretical Yield for Existing Land Uses.

Table 3.10-1. Assumed Maximum Theoretical Yield for Existing Land Uses

Land Use	Units	Baseline Buildout Scenario
B/OP	TSF	23,521.44
C	TSF	1,688.32
HDR	DU	469
I	TSF	78.40
LI	TSF	6,300.00
MDR	DU	4,921
MHDR	DU	566
O	TSF	1,543.56
OS	AC	214.10
PF/I	TSF	2,447.17
SRR	DU	7
VLDR	DU	6
<b>Total Theoretical Dwelling Units</b>		<b>5,969</b>
<b>Total Theoretical Nonresidential Square Feet</b>		<b>35,578,897</b>

Source: Appendix H

Notes: TSF = Thousand Square Feet; DU = Dwelling Unit; AC = Acres.

### 3.10.1.3 Surrounding Land Uses

Generally, the SPA is bounded by the Santa Ana River to the west, elevated topography to the north, I-215 to the east, and SR-60 to the south. The SPA does extend in parts past the I-215 to the east, and the SR-60 to the south. Table 2-2, Surrounding Land Uses, summarizes the surrounding land use patterns.

## 3.10.2 Relevant Plans, Policies, and Ordinances

### Federal

No federal regulations would be applicable to land use and planning with respect to the Northside Specific Plan.

### State

#### **California Government Code Section 65450 et seq.**

Section 65450 et seq. of the California Government Code authorizes cities to prepare, adopt, and administer specific plans for portions of their jurisdictions, as a means of implementing a city's general plan. All specific plans must comply with Sections 65450–65457 of the Government Code. The Northside Specific Plan complies with all requirements mandated by state law.

#### **California Constitution, Article XI, Section 7**

Article XI, Section 7, of the California State Constitution gives cities and counties the authority to regulate land use. California State Planning and Land Use Law (Government Code Section 65000 et seq.) sets forth minimum standards for the regulation of land use at the city and county level.

### Regional

#### *Southern California Association of Governments*

SB 375 requires Metropolitan Planning Organizations (MPOs) to prepare a Sustainable Communities Strategy (SCS) in their Regional Transportation Plan (RTP). The Southern California Association of Governments (SCAG) Regional Council adopted the 2012 RTP/SCS in April 2012 (SCAG 2012), and the 2016–2040 RTP/SCS (2016 RTP/SCS) was adopted in April 2016 (SCAG 2016). Both the 2012 and 2016 RTP/SCSs establish a development pattern for the region that, when integrated with the transportation network and other policies and measures, would reduce GHG emissions from transportation (excluding goods movement). Specifically, the 2012 RTP/SCS links the goals of sustaining mobility with the goals of fostering economic development; enhancing the environment; reducing energy consumption; promoting transportation-friendly development patterns; and encouraging all residents affected by socioeconomic, geographic, and commercial limitations to be provided with fair access. The 2012 and 2016 RTP/SCSs do not require that local general plans, specific plans, or zoning be consistent with it but provide incentives for consistency for governments and developers.

#### *Western Riverside Multiple Species Habitat Conservation Plan*

The biological goal of the MSHCP is to conserve covered plant, bird, mammal, and amphibian species and their habitats, as well as to maintain biological diversity while allowing for future economic growth within a rapidly urbanizing region. The MSHCP was adopted on September 23, 2003 (County of Riverside 2003), and the federal and state wildlife agencies originally approved permits to implement the MSHCP in June 2004. See Section 3.3, Biological Resources, of this EIR for additional information.

#### *South Coast Air Quality Management Plan*

While CARB is responsible for the regulation of mobile emissions sources within the state, local air quality management districts and air pollution control districts are responsible for enforcing standards and regulating stationary sources. SCAQMD is the regional agency responsible for the regulation and enforcement of federal, state, and local air pollution control regulations in SCAB, where the SPA is located. The SCAQMD operates monitoring stations in the SCAB, develops rules and regulations for stationary sources and equipment, prepares emissions inventory and air quality management planning documents, and conducts source testing and inspections. The SCAQMD's Air Quality Management Plans (AQMPs) include control measures and strategies to be implemented to attain the CAAQS and NAAQS in the SCAB. The SCAQMD then implements these control measures as regulations to control or reduce criteria pollutant emissions from stationary sources or equipment.

#### *Applicable Rules*

Emissions that would result from stationary and area sources during operation in the SPA may be subject to SCAQMD rules and regulations, which may include the following.

**Rule 2202 – On-Road Motor Vehicle Mitigation Options:** The purpose of this rule is to provide employers with a menu of options to reduce mobile source emissions generated from employee commutes, to comply with federal and state Clean Air Act requirements, Health & Safety Code Section 40458, and Section 182(d)(1)(B) of the federal Clean Air Act. This Rule applies to any employer who employs 250 or more employees on a full or part-time basis at a worksite for a consecutive six-month period calculated as a monthly average, except as provided in subdivision (l) of this Rule.

**Regulation IX - Standards of Performance for New Stationary Sources (NSPS):** This regulation requires all new, modified, or reconstructed sources of air pollution to comply with criteria air pollutant emission standards established for individual industrial or source categories.

**Regulation X - National Emission Standards for Hazardous Air Pollutants (NESHAPS):** This regulation requires all new, modified, or reconstructed sources of air pollution to comply with air toxics emission standards established for individual industrial or source categories. The Maximum Achievable Control Technology standards requires the maximum degree of emission reduction achievable for particular source categories.

Refer to Section 3.2, Air Quality, for additional details.

### Local - City of Riverside

#### *City of Riverside General Plan 2025*

The City of Riverside General Plan 2025 was adopted in November 2007 and considers the continued growth of the City beyond the year 2025. Most of the objectives and policies relevant to the proposed project are contained within the General Plan 2025's Land Use and Urban Design Element (City of Riverside 2019), Circulation and Community Mobility Element (City of Riverside 2018a), Public Safety Element (City of Riverside 2018b), Noise Element (City of Riverside 2018c), Air Quality Element (City of Riverside 2007a), and Historic Preservation Element (City of Riverside 2012a), as described below.

#### Land Use and Urban Design Element

The City of Riverside's General Plan 2025 – Land Use and Urban Design Element was amended in August 2019 (City of Riverside 2019). The Land Use and Urban Design Element presents objectives and policies to preserve and enhance City-wide and neighborhood-specific character. This element of the General Plan 2025 describes present and planned land uses and their relationship to the City of Riverside's visionary goals.

- Objective LU-1:** Increase the prominence of the Santa Ana River by providing better connections and increased recreational opportunities.
- Objective LU-2:** Recognize and enhance the Santa Ana River's multiple functions: a place of natural habitat, a place for recreation and a conveyance for stormwater runoff.
- Objective LU-3:** Preserve prominent ridgelines and hillsides as important community visual, recreational and biological assets.
- Objective LU-4:** Minimize the extent of urban development in the hillsides, and mitigate any adverse impacts associated with urbanization to the extent feasible.
- Objective LU-7:** Preserve and protect significant areas of native wildlife and plant habitat, including endangered species.
- Objective LU-8:** Ensure smart growth principles through all steps of the land development process.
- Objective LU-9:** Provide for continuing growth within the General Plan Area, with land uses and intensities appropriately designated to meet the needs of anticipated growth and to achieve the community's objectives.

- Objective LU-11:** Create a network of parkways to establish stronger linkages between Riverside’s neighborhoods, major elements of its natural environment and neighborhood parks and schools.
- Objective LU-21:** Attractively develop the City’s major gateways to create a stronger sense of City identity.
- Objective LU-25:** Add to the City’s industrial land base where logically and physically possible to do so.
- Objective LU-26:** Ensure that a network of modern, effective and adequate community facilities are equitably distributed across the entire City.
- Objective LU-27:** Enhance, maintain and grow Riverside’s inventory of street trees.
- Objective LU-30:** Establish Riverside’s neighborhoods as the fundamental building blocks of the overall community, utilizing Neighborhood and Specific Plans to provide a more detailed design and policy direction for development projects located in particular neighborhoods.
- Objective LU-57:** Protect the existing, planned single family residential neighborhood within the Hunter Business Park.
- Objective LU-70:** Provide a balanced community with sufficient office, commercial and industrial uses while preserving the single-family residential preeminence of the community.
- Objective LU-71:** Establish the Northside Community as a balanced community in which it is pleasant to live, work and play.
- Objective LU-72:** Provide for steady change and improvement to an upgraded model community with a distinct identity.
- Objective LU-73:** Provide for comprehensive development and management of the Northside Community irrespective of political jurisdiction.

#### **Circulation and Community Mobility Element**

The Circulation and Community Mobility Element (City of Riverside 2018a) presents objectives and policies focused on serving the transportation needs of the community and encouraging the effective use of alternative modes of transportation. The major principles underlying this element of the General Plan 2025 are focusing future development near existing transportation corridors; ensuring land uses are supported by an efficient local roadway network; embracing innovative solutions to congestion on freeways and regional arterials; supporting alternative modes of transportation such as walking, biking, and transit; and ensuring that transportation options are maximized for all community members as necessary components of an effective and safe circulation system for the City of Riverside.

- Objective CCM-2:** Build and maintain a transportation system that combines a mix of transportation modes and transportation system management techniques, and that is designed to meet the needs of Riverside’s residents and businesses, while minimizing the transportation system’s impacts on air quality, the environment and adjacent development.
- Objective CCM-7:** Minimize or eliminate cut-through traffic within Riverside’s residential neighborhoods.

**Objective CCM-9:** Promote and support an efficient public multimodal transportation network that connects activity centers in Riverside to each other and to the region.

**Objective CCM-10:** Provide an extensive and regionally linked public bicycle, pedestrian and equestrian trails system.

**Objective CCM-12:** Facilitate goods movement as a means of economic expansion, while protecting residents and visitors from the negative effects typically associated with truck operations and rail service.

**Objective CCM-13:** Ensure that adequate on- and off-street parking is provided throughout Riverside.

### **Housing Element**

The City of Riverside's General Plan 2025– Housing Element was amended on June 19, 2018 (City of Riverside 2018d). This element provides objectives, policies, and programs to facilitate the development, improvement, and preservation of housing in the City of Riverside as it continues to grow in population. The following policies and objectives are relevant to the Northside Specific Plan.)

**Objective H-1:** To provide livable neighborhoods evidenced by well-maintained housing, ample public services, and open space that provide a high-quality living environment and instill community pride.

### **Arts and Culture Element**

The City of Riverside's General Plan 2025 – Arts and Culture Element was adopted November 2007 (City of Riverside 2007b). This element provides objectives and policies to create a more livable city, to stimulate the local economy, enhance the urban environment, celebrate the natural environment, engage with a wide spectrum of citizens and empower neighborhoods.

**Objective AC-2:** Celebrate the diversity of Riverside's neighborhoods and residents, using arts and cultural programs to build neighborhood identity and mutual acceptance.

**Objective AC-3:** Continue to explore the Cultural Village concept for one or more neighborhoods in Riverside.

### **Public Safety Element**

The Public Safety Element (City of Riverside 2018b) identifies public safety issues and needs anticipated to be of ongoing concern to the City of Riverside during the planning period. This element describes the major hazards that might affect the City of Riverside, as well as the resources available to respond when an accident or emergency occurs. The element sets forth objectives and policies to address all foreseeable public safety concerns. The overall purpose of this element is to ensure that the City of Riverside takes all necessary proactive measures to reduce the risk of hazards and adequately, expediently, and efficiently respond to immediate safety threats.

**Objective PS-1:** Minimize the potential damage to existing and new structures and loss of life that may result from geologic and seismic hazards

**Objective PS-2:** Reduce potential flood hazards within Riverside.

**Objective PS-5:** Provide Safe pedestrian and bicyclist environmental Citywide.

**Objective PS-6:** Protect property in urbanized and nonurbanized areas from fire hazards.

### **Noise Element**

The Noise Element (City of Riverside 2018c) examines noise sources in the City of Riverside with a view toward identifying and appraising the potential for noise conflicts and problems, and identifies ways to reduce existing and potential noise impacts. In particular, the Noise Element contains policies and programs to achieve and maintain noise levels compatible with various types of land uses. The element programmatically addresses noise that affects the community at large, rather than noise associated with site-specific conditions.

**Objective N-1:** Minimize noise levels from point sources throughout the community and, wherever possible, mitigate the effects of noise to provide a safe and healthful environment.

**Objective N-4:** Minimize ground transportation-related noise impacts.

### **Open Space and Conservation Element**

The City of Riverside's General Plan 2025 – Open Space and Conservation Element was amended in November 2012 (City of Riverside 2012b). This element sets forth objectives and policies that work to preserve and protect existing resources, and to capture new resources as they become available. As new development occurs in the City of Riverside, these objectives and policies help with preserving and maintaining the city's open space areas.

**Objective OS-1:** Preserve and expand open space areas and linkages throughout the City and sphere of influence to protect the natural and visual character of the community and to provide for appropriate active and passive recreational uses.

**Objective OS-2:** Minimize the extent of urban development in the hillsides, and mitigate any significant adverse consequences associated with urbanization.

### **Air Quality Element**

The Air Quality Element is a planning tool the City of Riverside uses to protect the public's health and welfare (City of Riverside 2007a). While the State of California does not require General Plans to include Air Quality Elements, the City of Riverside recognizes the importance of air quality not only to public health and safety, but also to the City's economic well-being and its image in the region.

**Objective AQ-1:** Adopt land use policies that site polluting facilities away from sensitive receptors and vice versa; improve job-housing balance; reduce vehicle miles traveled and length of work trips; and improve the flow of traffic.

**Objective AQ-2:** Reduce air pollution by reducing emissions from mobile sources.

**Objective AQ-4:** Reduce particulate matter, as defined by the Environmental Protection Agency (EPA), as either airborne photochemical precipitates or windborne dust.

### **Public Facilities and Infrastructure Element**

The City of Riverside’s General Plan 2025 – Public Facilities and Infrastructure Element was amended November 2012 (City of Riverside 2012c). The following City of Riverside’s General Plan 2025 Public Facilities and Infrastructure Element contains objectives and policies that are applicable to project, as included below:

**Objective PF-3:** Maintain sufficient levels of wastewater service throughout the community.

**Objective PF-4:** Provide sufficient levels of storm drainage service to protect the community from flood hazards and minimize the discharge of materials into the storm drain system that are toxic, or which would obstruct flows.

**Objective PF-10:** Meet the varied recreational and service needs of Riverside’s diverse population.

### **Park and Recreation Element**

The City of Riverside’s General Plan 2025 – Park and Recreation Element was amended November 2012 (City of Riverside 2012d). As the City of Riverside grows, parks and recreation programs will continue to play a role in the lives of the residents by providing open spaces for active recreational pursuits, passive enjoyment, enhanced quality of life, and enhanced community image.

**Objective PR-1:** Provide a diverse range of park and recreational facilities that are responsive to the needs of Riverside residents.

**Objective PR-2:** Increase access to existing and future parks and expand pedestrian linkages between park and recreational facilities throughout Riverside.

### **Historic Preservation Element**

The purpose of the Historic Preservation Element is to provide guidance in developing and implementing activities that ensure that identification, designation, and protection of cultural resources are part of the City of Riverside’s community planning, development, and permitting processes (City of Riverside 2012e). This element also defines the City of Riverside’s role in encouraging private-sector activities that support historic preservation goals.

**Objective HP-1:** To use historic preservation principles as an equal component in the planning and development process.

**Objective HP-5:** To ensure compatibility between new development and existing cultural resources.

### **City of Riverside Municipal Code**

#### **Title 19 – Zoning Code**

Title 19 of the City’s Municipal Code outlines the Zoning Code for the City of Riverside and includes regulations for site planning and development.

The permitted uses and development standards for the SPA would be established by approval of the Specific Plan entitlement. The project is subject to Chapter 19.820 of the City’s Municipal Code, which sets forth requirements for specific plans and specific plan amendments. As stated in Section 19.820.020 of the Municipal Code, specific

plan and specific plan amendment applications must be processed in accordance with the City's discretionary permit processing provisions. Section 19.820.040(A) describes the relationship between specific plans other adopted regulations. Upon approval, these specific plans are allowed to either supplement or supersede all land use regulations applicable to the subject property, including all previously adopted ordinances, standards, and guidelines. In the event of an inconsistency between a specific plan and the Zoning Code, the specific plan prevails. Section 19.820.040(B) sets forth the required contents of specific plans.

### **Title 7 – Noise Control**

Title 7 of the City of Riverside's Municipal Code contains the City's Noise Control Code. The project would be subject to the applicable provisions of this code during construction and operation. The Noise Control Code sets forth regulations that control and prohibit unnecessary, excessive, and/or annoying noise in the City of Riverside. Compliance with the Noise Control Code minimizes noise levels in the City of Riverside and reduces the effects of noise, thereby providing a safer and healthier living environment. Refer to Section 3.11, Noise, in this EIR for more details on the Noise Control Code and its applicability to the proposed SPA.

### **Title 16 – Building and Construction**

Title 16 of the City of Riverside's Municipal Code sets forth regulations for design, construction, quality of materials, use and occupancy, location and maintenance of buildings, equipment, structures, and grading for development within the City of Riverside. This title also covers requirements for electrical work, plumbing, heating, cooling, and other equipment specifically regulated in the City of Riverside. Title 16 provides minimum standards for the safety of buildings and building construction within the City of Riverside, in order to protect life and property. All development projects within the proposed SPA would be required to meet all applicable provisions of Title 16.

### **Title 17 – Grading Code**

Title 17 of the City of Riverside's Municipal Code sets forth regulations for grading projects. Compliance with these regulations helps minimize erosion, dust, water runoff, effects to natural landforms, and construction equipment emissions. All development projects proposed within the SPA would be required to meet the applicable provisions of Title 17.

### **Title 18 – Subdivision Code**

Title 18 sets forth regulations for the design of subdivisions. Provisions include lot size requirements, street capacity requirements, pedestrian and vehicular safety requirements, and site access requirements to ensure adequate access to each building site. Title 18 also contains provisions that help preserve the natural assets of the City of Riverside, with the purpose of preventing indiscriminate clearing of property and destruction of vegetation and other desirable landscape features.

### **Title 20 – Cultural Resources**

Title 20 of the City of Riverside's Municipal Code provides guidelines for preserving, protecting, restoring, and rehabilitating historical and cultural resources within the City in order to maintain and encourage appreciation of its history and culture, improve the quality of the City of Riverside's built environment, maintain the character and identity of its communities, and enhance the local economy through historic preservation.

### ***Citywide Design and Sign Guidelines***

The Citywide Design and Sign Guidelines were set forth to reinforce the City of Riverside’s aesthetics and to promote well-designed development projects that help enhance existing neighborhoods and that improve overall quality of life within the City of Riverside. The project will be reviewed by Design Review to ensure consistency with the City of Riverside’s standards for the design of development projects.

### ***The City of Riverside – Economic Prosperity Action Plan (EPAP) and Climate Action Plan (CAP)***

The City of Riverside CAP (City of Riverside 2016) was adopted in 2016, and is qualified to 2035, expands upon the efforts of the WRCOG Subregional CAP, employing local measures to help the City achieve its GHG reduction target for 2035. To further develop local GHG reduction measures for the Riverside Restorative Growthprint Climate Action Plan (RRG-CAP), the City conducted a more detailed assessment of local strategies and actions related to the measures in the Subregional CAP, expanding the discussion and analysis with respect to implementation (for post-2020 in particular), costs and funding, performance metrics, and local co-benefits. Local reduction measures in the RRG-CAP are organized into four major sectors:

- Energy – including electricity and natural gas consumption
- Transportation and Land Use
- Water
- Solid Waste

The following local measures are identified in the RRG-CAP to reduce GHG Emissions:

**Measure E-2, Shade Trees:** Strategically plant trees at new residential development to reduce the urban heat island effect

**Measure T-1, Bicycle Infrastructure Improvements:** Expand on-street and off-street bicycle infrastructure, including bicycle lanes and bicycle trails

**Measure T-2, Bicycle Parking:** Provide additional options for bicycle parking

**Measure T-3, End of Trip Facilities:** Encourage use of non-motorized transportation modes by providing appropriate facilities and amenities for commuters

**Measure T-4, Promotional Transportation Demand Management:** Encourage Transportation Demand Management strategies

**Measure T-6, Density:** Improve jobs-housing balance and reduce vehicle miles traveled by increasing household and employment densities

**Measure T-7, Mixed-Use Development:** Provide for a variety of development types and uses

**Measure T-8, Pedestrian-Only Areas:** Encourage walking by providing pedestrian-only community areas

**Measure T-9, Limit Parking Requirements for New Development:** Reduce requirements for vehicle parking in new development projects

**Measure T-12, Accelerated Bike Plan Implementation:** Accelerate the implementation of all or specified components of a jurisdiction’s adopted bike plan

**Measure T-16, Bike Share Program:** Create nodes offering bike sharing at key locations throughout the City.

**Measure T-18, SB-743-Alternative to LOS:** Use SB 743 to incentivize development in the downtown and other areas served by transit

**Measure T-20, Eco-Corridor / Green Enterprise Zone:** Create a geographically defined area(s) featuring best practices in sustainable urban design and green building focused on supporting both clean-tech and green businesses

**Measure A-2, Urban Forest:** Augment City’s Urban and Community Forest Program to include an Urban Forest Management Plan

### Local - City of Colton

#### *City of Colton General Plan*

#### Land Use Element

The City of Colton’s General Plan – Land Use Element was adopted in August 2013 (City of Colton 2013a). The Land Use Element presents objectives and policies to respect their heritage and historic resources, to protect suburban development patterns and neighborhoods, and provide opportunities for businesses.

- Goal LU-1:** Achieve a balance of land use types that create diverse opportunities for housing, employment, commerce, recreation, and civic engagement.
- Goal LU-2:** Create great places in Colton through use of high-quality streetscapes and design requirements.
- Goal LU-3:** Ensure a strong and diversified economic base to provide for fiscal stability and sustainability.
- Goal LU-4:** Incorporate green building and other sustainable building practices into development projects.
- Goal LU-5:** Reduce use of energy resources citywide, with a key goal of reducing the City’s carbon footprint.
- Goal LU-6:** Minimize or eliminate land use conflicts where residences are in close proximity to rail lines, freeways, and industrial businesses.
- Goal LU-7:** Provide opportunities for all neighborhoods in Colton to be in a healthy and attractive physical condition.
- Goal LU-9:** Maintain a diverse mix of commercial uses that benefit the community in terms of needed commercial services, tax revenue, and employment opportunities.
- Goal LU-11:** Achieve and maintain a strong and highly competitive Industrial base that provides attractive, high-quality developments and varied employment opportunities.
- Goal LU-12:** Provide for open space and recreation areas that meet the needs of Colton residents.

**Goal LU-13:** Protect open space lands necessary for flood control and habitat preservation purposes, and to provide buffers from identified earthquake faults and other public safety hazards.

**Goal LU-21:** Create a residential neighborhood in the Pellissier Ranch/La Loma Hills area that consists largely of low density or clustered residential development, with support neighborhood commercial uses, open space, and compatible uses that complement the natural landscape, the Santa Ana River, and the La Loma Hills.

### **Mobility Element**

The City of Colton General Plan – Mobility Element was adopted on August 20, 2013 (City of Colton 2013b). The Mobility Element establishes long-term goals and policies designed to improve the local transportation system and create options for residents to move about the City of Colton. The Mobility Element balances the need for efficient traffic operations with the desire to maintain City of Colton as a safe and attractive community, one with walkable neighborhoods, successful business districts, and distinctive streets.

**Goal M-1:** Provide an integrated and balanced multi-modal transportation network of Complete Streets to meet the needs of all users and transportation modes.

**Goal M-3:** Develop a safe, efficient, and attractive street system that provides capacity to meet existing and future demand.

**Goal M-5:** Maintain an efficient network of goods and freight movement that supports the needs of Colton businesses while reducing truck and rail traffic impacts on residential neighborhoods.

**Goal M-6:** Ensure the provision of adequate, convenient, and safe parking for all land uses.

### **Open Space and Conservation Element**

The City of Colton’s General Plan – Open Space and Conservation Element was approved in 1987 (City of Colton 1987). This element assesses the existing open space and conservation factors for the City of Colton and establishes goals to preserve and enhance open space within the city.

**Principle 1.** Preserve and protect hillside and environmentally sensitive areas designated for growth through the use of strict hillside development standards. (Open Space and Conservation Element)

### **Safety Element**

The City of Colton’s General Plan – Safety Element was adopted December 18, 2018 (City of Colton 2018). The purpose of this element is to safeguard the residents of the City of Colton by adequately anticipating potential emergency situations caused by natural and man-made hazards, and planning response strategies in the event an emergency situation occurs. This element discusses seismic and geologic hazards, flood hazards, fire hazards in urban areas and State Responsibility Areas, and climate adaptation and resiliency strategies.

**GOAL S-1:** Improve the community’s resilience to seismic and geologic hazards by ensuring the integrity of the built environment.

**Goal S-2:** Anticipate the risks and mitigate the effects that flood hazards pose to the community.

- GOAL S-3:** Safeguard the community from the threat of urban and wildfire hazards.
- GOAL S-5:** Promote the continued well-being of all Colton community members through comprehensive emergency management.
- GOAL S-6:** Minimize the community’s risk of exposure to hazardous materials and wastes.

### *City of Colton Municipal Code*

#### **Title 18 – Zoning**

Title 18 of the City of Colton’s Municipal Code outlines the Zoning Code for the City of Colton and includes regulations for site planning and development. Title 18 is consistent and compatible with the City of Colton’s General Plans’ goals, policies, and objectives. Per Title 18, the City of Colton is divided into the 18 zones. As seen in Figure 2-5, Existing General Plan Land Uses, the SPA is located on M-1, Light Industrial, and VLDR, Very Low Density Residential, zones. The Northside Specific Plan would change the zoning to include VLDR, M-1, C-2 (General Commercial), and R-O (Colton Residential Overlay Zone) (Figure 2-6, Proposed Specific Plan Land Uses). All permitted uses for these zoning change are defined in Title 18.

### *City of Colton Climate Action Plan*

The City of Colton CAP (City of Colton 2015), was adopted in 2015 presents local GHG inventories, identifies the effectiveness of California initiatives to reduce GHG emissions, and identifies local measures that were selected by the City to reduce GHG emissions under the City’s jurisdictional control to achieve the City’s identified GHG reduction target. In addition to referencing City of Colton General Plan policies that contribute to GHG reductions, the CAP contains reduction measures related to the following sectors:

- Building energy
- On-road transportation
- Off-road transportation
- Off-road equipment
- Agriculture,
- Land use and urban design
- Solid waste management
- Wastewater
- Water Conveyance

The following local measures are identified in the City of Colton CAP to reduce GHG Emissions related to the Land Use and Urban Design sector:

**Measure On-Road-1:** SB 375 Sustainable Communities Strategy (Regional)

**Measure On-Road-1.4:** Adopt Land Use Patterns to Favor Transit-Oriented Development (Local Regional)

**Measure On-Road-1.5:** Nonmotorized Zones (Local)

**Measure On-Road-1.9:** Trip Reduction Ordinance (Local)

**Measure On-Road-1.11:** Pedestrian Bicycle Lanes (Local/Regional)

**Measure On-Road-1.12:** Pedestrian and Bicycle Network Improvements (Local/Regional)

**Measure Land Use-1:** Tree Planting Programs

**Measure Water-1:** Require Adoption of the Voluntary CALGreen Water Efficiency Measures for New Construction

**Measure Water-3:** Encourage Water-Efficient Landscaping Practices

**Measure Water-4:** Senate Bill X7-7 The Water Conservation Act of 2009

#### Local - County of Riverside

##### *County of Riverside General Plan*

##### Land Use Element

The County of Riverside’s General Plan – Land Use Element was revised in April 2019 (County of Riverside 2019a). The Land Use Element presents policies to serve as a guide to planners and the public to the County of Riverside’s long term development goals.

**LU 8.6:** Create Practical incentives for business development, and avoid disincentives.

**LU 8.10:** Locate job centers so they have convenient access to Riverside County's multi-modal transportation facilities.

**LU 29.6:** Require that commercial projects abutting residential properties protect the residential use from the impacts of noise, light, fumes, odors, vehicular traffic, parking, and operational hazards.

**LU 32.10:** Require that mixed-use developments be designed to mitigate potential conflicts between uses, considering such issues as noise, lighting, security, trash, and truck, and automobile access.

##### Safety Element

The County of Riverside General Plan – Safety Element was revised August 6, 2019 (County of Riverside 2019b). This element develops a framework by which safety considerations are introduced into the land use planning process; facilitates the identification and mitigation of hazards for new development therefore strengthening existing codes, project review, and permitting processes; presents policies directed at identifying and reducing hazards in existing development; and strengthens earthquake, food, inundation, and wildland fire preparedness planning and post-disaster reconstruction policies.

**S 5.1** Develop and enforce construction and design standards that ensure that proposed development incorporates fire prevention features through the following:

**S 5.6** Demonstrate that the proposed development can provide fire services that meet the minimum travel times identified in Riverside County Fire Department Fire Protection and EMS Strategic Master Plan.

**Noise Element**

The County of Riverside General Plan – Noise Element was revised December 8, 2015 (County of Riverside 2015). The Noise Element of the General Plan is closely related to the Land Use Element because of the effects that noise has on sensitive land uses. Noise-producing land uses must be compatible with adjacent land uses in order for the Land Use Plan to be successful. Land uses that emit noise are measured in A-weighted decibels (dBA) or Community Noise Equivalent Level (CNEL). If existing land uses emit noise above a certain level, they are not compatible with one another, and therefore noise attenuation devices must be used to mitigate the noise to acceptable levels indoors and outdoors. In cases of new development, the placement of noise-sensitive land uses is integral to a successful community.

- N-1.5** Prevent and mitigate the adverse impacts of excessive noise exposure on the residents, employees, visitors, and noise-sensitive uses of Riverside County.
- N 1.6** Minimize noise spillover or encroachment from commercial and industrial land uses into adjoining residential neighborhoods or noise-sensitive uses.
- N 1.7** Require proposed land uses, affected by unacceptably high noise levels, to have an acoustical specialist prepare a study of the noise problems and recommend structural and site design features that will adequately mitigate the noise problem.

**Housing Element**

The County of Riverside General Plan – Housing Element was adopted in October 3, 2017 (County of Riverside 2017). The Housing Element identifies and establishes goals and policies to meet the need of existing and future residents. The following policies are relevant to the Northside Specific Plan.

- Goal 1** To assist in the development of adequate housing to meet the County’s fair share of the region’s housing needs for all economic segments of the population, with an emphasis on lower-income households and households with special needs.
- Goal 2** To conserve and improve the condition of the housing stock, particularly affordable housing
- Goal 5** Reduce per capita residential energy use.

***County of Riverside Climate Action Plan***

Riverside County’s Climate Action Plan (CAP) (County of Riverside 2019c) elaborates on the General Plan goals and policies and provides a specific implementation tool to guide future decisions of the County of Riverside. The CAP introduces ways to mitigate GHG emissions through using energy more efficiency utilizing renewable energy to power buildings, recycling waste, and enhancing access to sustainable transportation modes.

The following local measures are identified in the City of Colton CAP to reduce GHG Emissions related to land use:

- R2-T1:** Alternative Transportation Options
- R2-T2:** Adopted and Implement a Bicycle Master Plan to Expand Bike Routes around the County
- R2-EE5:** Exceed Energy Efficiency Standards in New Residential Units

**R2-L1:** Tree Planting for Shading and Energy Saving

**R2:L2:** Light Reflecting Surfaces for Energy Saving

### 3.10.3 Thresholds of Significance

The significance criteria used to evaluate the project’s potential impacts to land use and planning are based on Appendix G of the California Environmental Quality Act Guidelines. According to Appendix G, a significant impact related to land use and planning would occur if the project would:

1. Physically divide an established community.
2. Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect.

### 3.10.4 Impacts Analysis

***Would the project physically divide an established community?***

**No Impact.** The SPA is composed of approximately 2,000 acres located generally northwest of the I-215 and SR-60 interchange. Figure 2-4, Aerial Photograph, shows an aerial image of the SPA. This figure shows that the majority of the SPA is urbanized. The Northside Specific Plan would allow additional infill or redevelopment within these developed areas that would result in the creation of a community comprised of older existing land uses and new land uses with a central “vision.” The Northside Specific Plan does not propose any changes to the existing residential development within the SPA (Figure 2-6, Proposed Specific Plan Land Uses). In addition, the Northside Specific Plan would improve existing mobility infrastructure to support a variety of mobility choices, and support mixed-use development, where appropriate, to provide convenient access to good and services to the residents of the community.

Development of the northern undeveloped area (Pellissier Ranch) at the north end of the SPA would incorporate new employment and residential opportunities to the community by changing the existing land use designation to Light Industrial (LI), General Commercial (C-2), and High Density Residential (HDR). Pellissier Ranch would be accessible through the existing roadway network. Development of the Ab Brown Sports Complex and former Riverside Golf Course would not physically divide an established community, as the established communities nearby are not currently connected via the undeveloped or open area. Proposed development within these areas include a mixed-use neighborhood center for the community and parkland that would extend to the Springbrook Arroyo and Reid Park. The Northside Specific Plan is intended to provide a more cohesive community with adequate buffers and connections. Therefore, implementation of the Northside Specific Plan would not result in physically dividing an established community. There would be **no impact**.

***Would the project cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?***

The Northside Specific Plan would provide a roadmap to guide future development of the Northside Community and overall SPA over a 20-year period through identification of the overall development standards of the community and individual land uses in a manner that is compatible with existing land uses and future needs. The Northside Specific Plan includes flexibility for future development in order to accommodate changes in markets over time,

and includes a Transition Zone Overlay as well as a Residential Overlay component that may be constructed in any order, dependent upon the market. These overlays target areas where the ultimate buildout transition to other uses may require additional time dependent on the market conditions. These different land use scenarios are captured in the near-term and build out (Year 2040) scenarios discussed in Section 2.4.1, Proposed Land Uses. Refer to Chapter 2, Project Description, for additional details about transportation, compliance measures and implementation as well. Each section below addresses consistency with applicable plans adopted to reduce environmental effects, including the General Plans, Western Riverside Multiple Species Habitat Conservation Plan, Municipal Zoning Code Consistency, Climate Action Plans, and South Coast Air Quality Management Plan.

### General Plans

**Less than Significant.** Under state law, specific plans provide detailed land use and infrastructure plans and policies for a certain geographic area and must be consistent with a community's General Plan. In order to be consistent with the City of Riverside's General Plan, the Northside Specific Plan includes a General Plan Amendment to designate the SPA as the Northside Specific Plan and replace the current land use designations (refer to Chapter 2, Project Description). The Northside Specific Plan also includes a change of zone to re-designate the SPA as the Northside Specific Plan and revise the current City of Riverside Zoning Map (refer to Chapter 2, Project Description). Adoption of the proposed general plan amendment and change of zone would allow implementation of the Northside Specific Plan and associated development standards.

In order to be consistent with the City of Colton General Plan, a general plan amendment, change of zone, and the Northside Specific Plan would be adopted as a part of this project. Compliance with general plan goals and policies would be required.

Table 3.10-2, Project Consistency with Applicable Plans, identifies the Northside Specific Plan's consistency with the applicable local and regional plans. To ensure consistency between the Northside Specific Plan and the agencies' general plan land use designations, the Northside Specific Plan would include approval of a General Plan Amendment from the City of Riverside and City of Colton concurrently with the adoption of the Specific Plan to incorporate and recognize that the proposed land uses replace the existing land uses within the SPA. The City of Riverside is not proposing a General Plan Amendment for the SPA within the County of Riverside, but rather revising the City's General Plan to update the land uses within the City's Sphere of Influence (SOI). The County's existing land use designations would continue to apply until which time the County chooses to voluntarily adopt the Specific Plan, or properties are annexed into the City. Furthermore, the revisions to the SOI are not significantly different from the existing land use designations for the County areas and, therefore, would not create significant inconsistency between the current County land use designations and proposed land uses, should County properties be annexed.

Table 3.10-2. Project Consistency with Applicable Plans

General Plan Goal/Objective/Policy	Proposed Project Consistency
<i>City of Riverside General Plan 2025</i>	
<b>Objective LU-1:</b> Increase the prominence of the Santa Ana River by providing better connections and increased recreational opportunities.	<b>Consistent.</b> The open space, parks and trails proposed within the SPA have been designed to provide connectivity between residential areas to parks, the Village Center, Trujillo Adobe Heritage Village, Downtown Riverside, and the Santa Ana River. Figure 2-11, Proposed Open Space and Trails Map, illustrates the proposed open space and trails within the SPA, including multiple potential connection points to the existing Santa Ana River Trail that runs along the western boundary of the SPA.
<b>Objective LU-2:</b> Recognize and enhance the Santa Ana River's multiple functions: a place of natural habitat, a place for recreation and a conveyance for stormwater runoff.	<b>Consistent.</b> In addition to increased multi-modal connectivity within the SPA, up to five potential connection points are proposed along the western boundary of the SPA, to connect to the existing Santa Ana River Trail. In addition, an area within Pellissier Ranch adjacent to the Santa Ana River, located in the northwest portion of the SPA, would be designated Outdoor Commercial Recreation, dedicated for private recreation where uses such as recreational vehicle park, camp ground, or other commercial activity oriented toward the Santa Ana River can be developed. Buildout of the proposed project would result in an increase in impermeable surfaces, which would result in additional stormwater runoff. Enhancements to existing on-site drainage features (see mitigation measures <b>MM HYD-1 through MM HYD-3</b> ) would ensure that stormwater flows are directed to the Santa Ana River, consistent with the existing hydrology.
<b>Objective LU-3:</b> Preserve prominent ridgelines and hillsides as important community visual, recreational and biological assets.	<b>Consistent.</b> The Northside Specific Plan does not propose any development on prominent hillside or ridgelines.
<b>Objective LU-4:</b> Minimize the extent of urban development in the hillsides, and mitigate any adverse impacts associated with urbanization to the extent feasible.	See response to <b>Objective LU-3.</b>
<b>Objective LU-7:</b> Preserve and protect significant areas of native wildlife and plant habitat, including endangered species.	<b>Consistent.</b> In Section 3.3, Biological Resources, two special-status plants have a low potential to occur within the SPA (Impact BIO-1a). Three special status wildlife species have a low potential to occur within the SPA (Impact BIO-4a, 5a), and coastal California gnatcatcher has a moderate potential to occur within the SPA (Impact BIO-6a). All of these impacts would be appropriately mitigated to a level less than significance, as detailed in Section 3.3, Biological Resources. The Northside Specific Plan also identifies the Springbrook Arroyo for future restoration consistent with this objective.
<b>Objective LU-8:</b> Ensure smart growth principles through all steps of the land development process.	<b>Consistent.</b> The Northside Specific Plan includes a variety of land uses to provide a range of employment opportunities and residential options within the community. The Northside Village Center, proposed near the center of the SPA, would serve as the hub for the community with a mix of commercial and residential land uses. In addition, the Northside Specific Plan proposes mixed-use development along the eastern project boundary, adjacent to I-215 and near the southern project boundary on either side of SR-60. The Northside Specific Plan would increase connectivity within the SPA through development of strategically placed

Table 3.10-2. Project Consistency with Applicable Plans

General Plan Goal/Objective/Policy	Proposed Project Consistency
	complete streets corridors (Figure 2-10, Complete Street Corridors) and a network of parks, trails, and open space areas (Figure 2-11, Proposed Open Space and Trails Map), so residents can easily access amenities and services throughout the community on foot, bike, bus, etc. The Specific Plan is intended to allow residents and workers to live, work and play in one location, rather than to go outside of the neighborhood for goods, services and recreation.
<b>Objective LU-9:</b> Provide for continuing growth within the General Plan Area, with land uses and intensities appropriately designated to meet the needs of anticipated growth and to achieve the community's objectives.	<b>Consistent.</b> The proposed project would allow for implementation of the Northside Specific Plan, which provides a roadmap to guide future development of the SPA based on community involvement and needs. The Northside Specific Plan includes Development Standards and Guidelines for construction of individual projects within the SPA in a manner that is compatible with the existing uses, anticipated future needs, and community vision. The project also includes Transition Zone Overlays to allow for redevelopment to occur consistent with the needs of the community.
<b>Objective LU-11:</b> Create a network of parkways to establish stronger linkages between Riverside's neighborhoods, major elements of its natural environment and neighborhood parks and schools.	<b>Consistent.</b> The Development Standards and Guidelines established for the Northside Specific Plan seek to allow for enhanced connections between different parts of the Northside community, for all modes of travel. The Northside Specific Plan would increase connectivity within the SPA through development of strategically placed complete streets corridors (see Figure 2-10, Complete Street Corridors) and a network of parks, trails, and open space areas (Figure 2-11. Proposed Open Space and Trails Map), so residents can easily access amenities and services throughout the community.
<b>Objective LU-21:</b> Attractively develop the City's major gateways to create a stronger sense of City identity.	<b>Consistent.</b> The Northside Specific Plan includes gateways to the Northside community along the major entrances, including access from SR-60 and I-215, crossing of the Santa Ana River and the Main Street corridor where it connects with the downtown area. The gateways must be developed in accordance with the Development Standards and Guidelines to provide enhanced landscape design and signage that is consistent through the SPA. In addition, key districts within the SPA will reinforce the overall landscape themes and signage that is complementary to the gateways.
<b>Objective LU-25:</b> Add to the City's industrial land base where logically and physically possible to do so.	<b>Consistent.</b> The Northside Specific Plan includes an area designated as Industrial Research Park within Pellissier Ranch, in the City of Colton (not within the City of Riverside). The area is currently zoned M-1; therefore, light industrial land uses would be consistent with approved land uses in the City of Colton General Plan. In addition, an open space agricultural buffer would be established along the base of the adjacent hillside and Santa Ana River to ensure separation between the urban and natural environments. No new industrial uses within the City of Riverside are proposed as a part of the Northside Specific Plan.
<b>Objective LU-26:</b> Ensure that a network of modern, effective and adequate community facilities are equitably distributed across the entire City.	<b>Consistent.</b> The Northside Specific Plan would designate approximately 20 acres of land as Public Facilities/Institutional (PF) for uses that enhance the quality of life in the Northside community. The Northside Specific Plan would include a potential police substation within the Northside Village Center. As discussed in Section 3.13, Public Services, existing schools serving the SPA are expected to exceed their design capacity at buildout of the proposed project. Future projects within the SPA would be subject to payment of a school development fee, to be determined by the affected school district, to accommodate growth and reduce

Table 3.10-2. Project Consistency with Applicable Plans

General Plan Goal/Objective/Policy	Proposed Project Consistency
	overcrowding (CRM-SRV-3. Impacts to other community facilities and services, such as fire and police, are anticipated to be less than significant with payment of applicable development impact fees ( <b>CM-SRV-1</b> and <b>CM-SRV-2</b> ).
<b>Objective LU-27:</b> Enhance, maintain and grow Riverside’s inventory of street trees.	<b>Consistent.</b> The Design Standards and Guidelines established for the Northside Specific Plan require planting of street trees at the minimum spacing permitted by the City. Therefore, required street trees within the SPA would be consistent with the City’s Municipal Code.
<b>Objective LU-30:</b> Establish Riverside’s neighborhoods as the fundamental building blocks of the overall community, utilizing Neighborhood and Specific Plans to provide a more detailed design and policy direction for development projects located in particular neighborhoods.	<b>Consistent.</b> The proposed project will allow for implementation of the Northside Specific Plan, which includes design and policy direction for the community, such as Design Standards and Guidelines.
<b>Objective LU-57:</b> Protect the existing, planned single family residential neighborhood within the Hunter Business Park.	<b>Consistent.</b> The portion of Hunters Industrial Park within the SPA is primarily developed with residential land uses. The Northside Specific Plan includes a Change of Zone from Business/Office Park (B/OP) to Medium Density Residential (MDR) to provide compatibility between the existing residential land uses and proposed land use designations.
<b>Objective LU-70:</b> Provide a balanced community with sufficient office, commercial and industrial uses while preserving the single-family residential preeminence of the community.	<b>Consistent.</b> The Northside Specific Plan would establish numerous mixed-use development areas along the eastern SPA boundary, adjacent to I-215 and near the southern SPA boundary on either side of SR-60. The mixed-use land uses would allow development of retail, offices, and service-oriented businesses in close proximity to existing residential neighborhoods. Industrial and B/OP land uses would be limited primarily to the northwestern portion of the SPA and approximately 137 acres adjacent to SR-60 to minimize impacts to residents. Most notably, no existing residential land uses are proposed for redevelopment under the Northside Specific Plan.
<b>Objective LU-71:</b> Establish the Northside Community as a balanced community in which it is pleasant to live, work and play.	<b>Consistent.</b> The Northside Specific Plan is designed to promote proactive economic development, encourage sustainable development and open space preservation, increase mobility choices, preserve the historic character, and develop attractive residential neighborhoods with diverse housing options. The guiding principles for the Northside Specific Plan were established through an action-oriented planning endeavor that relied on support from the City and residents to identify a vision and goals for the Northside community. A main intent of the Specific Plan is also to provide housing in close proximity to employment opportunities, consistent with the balanced community objective.

Table 3.10-2. Project Consistency with Applicable Plans

General Plan Goal/Objective/Policy	Proposed Project Consistency
<b>Objective LU-72:</b> Provide for steady change and improvement to an upgraded model community with a distinct identity.	<b>Consistent.</b> The Northside Specific Plan provides a framework for how the community would be developed over time. The Design Standards and Guidelines established for the Northside Specific Plan are intended to make the Northside community more attractive, stronger economically, and improved from an environmental perspective. The Transition Zone Overlay is intended to allow change in targeted areas to occur over time. Over time, individual projects would be developed within the SPA, based on market conditions.
<b>Objective LU-73:</b> Provide for comprehensive development and management of the Northside Community irrespective of political jurisdiction.	<b>Consistent.</b> The Northside Specific Plan provides a framework for how the Northside community would be developed over time, and provides a comprehensive vision for areas within the jurisdiction of the cities of Riverside and Colton, and an adjacent area in the County of Riverside. The Design Standards and Guidelines prepared for the Northside Specific Plan would maintain the unique character of neighborhoods and subareas within the Northside community while incorporating principles and guidance for how architecture, landscape, and overall planning concepts should be applied to foster an improved sense of place and enhanced social interactions.
<b>Objective H-1:</b> To provide livable neighborhoods evidenced by well-maintained housing, ample public services, and open space that provide a high-quality living environment and instill community pride.	<b>Consistent.</b> The Northside Specific Plan is designed to promote proactive economic development, encourage sustainable development and open space preservation, increase mobility choices, preserve the historic character, and develop attractive residential neighborhoods with diverse housing options. The Design Standards and Guidelines established for the Northside Specific Plan are intended to make the Northside community more attractive, stronger economically, and more sustainable, and to foster an improved sense of place. The cohesive guidelines would encourage design that accomplishes the desired vision for Northside while preserving the unique character of the area.
<b>Objective AC-2:</b> Celebrate the diversity of Riverside's neighborhoods and residents, using arts and cultural programs to build neighborhood identity and mutual acceptance.	<b>Consistent.</b> The Northside Specific Plan identifies approximately 8 acres at the northern boundary of the City of Riverside as Trujillo Adobe Heritage Village (TAHV). The TAHV would honor the historic past of Riverside's first settlement, the Trujillo Adobe. In addition, the Development Standards and Guidelines established for the Northside Specific Plan set forth guidance for public art within the SPA and enhance the existing historic resources and influences in the Northside community.
<b>Objective AC-3:</b> Continue to explore the Cultural Village concept for one or more neighborhoods in Riverside.	<b>Consistent.</b> The Northside Specific Plan identifies approximately 8 acres at the northern boundary of the City of Riverside as Trujillo Adobe Heritage Village (TAHV). The TAHV would honor the historic past of Riverside's first settlement, the Trujillo Adobe.
<b>Objective CCM-2:</b> Build and maintain a transportation system that combines a mix of transportation modes and transportation system management techniques, and that is designed to meet the needs of Riverside's residents and businesses, while minimizing the transportation system's impacts on air quality, the environment and adjacent development.	<b>Consistent.</b> The mobility plan for the Northside Specific Plan aims to provide for high quality public environments (e.g., roadways, trails) that allow for enhanced connections between different parts of the Northside community, for all modes of travel. The guidelines promote the mobility of pedestrians first, the mobility of bicyclists second, the movement and connections of transit third, and the movement of private vehicles fourth. The Northside Specific Plan would increase connectivity within the SPA through development of strategically placed complete streets corridors (Figure 2-10, Complete Street Corridors) and a network of parks, trails, and open space areas (Figure 2-11, Proposed Open Space and Trails Map), so residents can easily access amenities and services throughout the community.

Table 3.10-2. Project Consistency with Applicable Plans

General Plan Goal/Objective/Policy	Proposed Project Consistency
<b>Objective CCM-7:</b> Minimize or eliminate cut-through traffic within Riverside’s residential neighborhoods.	<b>Consistent.</b> As an established urban area, the Northside community is already developed with a system of arterial, collector, and local roadways to serve the community. The Northside Specific Plan would build on the existing transportation system to provide desired traffic patterns. Nine roadway segments within the SPA would be widened consistent with the applicable General Plan classifications (PDF-TR-1 through PDF-TR-9). Local streets would be developed in residential neighborhoods in an effort to minimize cut-through traffic. Lower capacity and speed limits discourage use as a cut-through. The Northside Specific Plan also includes measures to encourage large trucks to travel directly to the freeway versus through the City. It is also a main objective (Objective 5) of the Northside Specific Plan to reduce truck traffic through residential areas.
<b>Objective CCM-9:</b> Promote and support an efficient public multimodal transportation network that connects activity centers in Riverside to each other and to the region.	<b>Consistent.</b> The Northside Specific Plan is designed for residents and visitors to move about the community safely and efficiently via various modes of transportation. Bike lanes and sidewalks would be developed along community corridors (Figure 2-8, Bikeways) to provide easy access to nearby parks, amenities, and the trail system (Figure 2-11, Proposed Open Space and Trails Map). In addition, more Riverside Transportation Authority bus stops would be placed throughout the SPA to better connect the residential land uses to parks, schools, and employment areas.
<b>Objective CCM-10:</b> Provide an extensive and regionally linked public bicycle, pedestrian and equestrian trails system.	<b>Consistent.</b> The proposed multi-modal mobility system would strategically interconnect with the parks, trails, and open space system to provide a comprehensive mobility network for various modes of travel. The existing sidewalk network within the SPA provides access to most land uses with the exception of gaps near the industrial areas, and the SPA generally lacks an existing network of bicycle facilities. The Northside Specific Plan would extend the bicycle and trail facilities within the SPA to improve access to nearby land uses and neighborhoods and develop sidewalks to remove the gaps in the pedestrian circulation system.
<b>Objective CCM-12:</b> Facilitate goods movement as a means of economic expansion, while protecting residents and visitors from the negative effects typically associated with truck operations and rail service.	<b>Consistent.</b> During development of the Northside Specific Plan, existing truck routes along Main Street (between the northern City of Riverside boundary and SR-60) and Columbia Avenue (between Main Street and I- 215) would be modified to avoid truck traffic within the proposed complete streets corridors. Signage would be installed within the SPA to divert truck traffic to Center Street between Main Street and I-215. In addition, signage would be installed on Center Street to prohibit large trucks from using Orange Street as a bypass route. The proposed modifications would direct truck traffic to collector and arterial roadways while avoiding residential neighborhoods and complete streets corridors.
<b>Objective CCM-13:</b> Ensure that adequate on- and off-street parking is provided throughout Riverside.	<b>Consistent.</b> All development projects within the SPA must demonstrate consistency with the Design Standards established for the Northside Specific Plan prior to project approval. The Design Standards include guidelines for on-street and off-street parking, including minimum parking spaces required for various land use activities. Compliance with all applicable parking design guidelines would ensure adequate parking within the SPA. Ultimately, parking is not considered an environmental impact.
<b>Objective OS-1:</b> Preserve and expand open space areas and linkages throughout the City and sphere of influence to protect the natural	<b>Consistent.</b> The Northside Specific Plan includes a series of parks, key open spaces, and trails to connect different areas of the Northside community. Springbrook Arroyo would be restored to a naturalized channel with adjacent multi-use trails, thereby preserving the existing water feature and improving the visual

Table 3.10-2. Project Consistency with Applicable Plans

General Plan Goal/Objective/Policy	Proposed Project Consistency
and visual character of the community and to provide for appropriate active and passive recreational uses.	character and connectivity within the Northside Community. In addition, open space and recreational areas would be developed adjacent to the Santa Ana River, and the Northside Specific Plan includes development of the Riverside Golf Course site and the Ab Brown Sports Complex, near the center of the SPA, as a community park and sports complex.
<b>Objective OS-2:</b> Minimize the extent of urban development in the hillsides, and mitigate any significant adverse consequences associated with urbanization.	<b>Consistent.</b> The Northside Specific Plan does not propose any development on hillsides.
<b>Objective PS-1:</b> Minimize the potential damage to existing and new structures and loss of life that may result from geologic and seismic hazards	<b>Consistent.</b> Future projects developed within the SPA would be required to comply with the seismic safety requirements of the California Building Code ( <b>CM-GEO-1</b> ) and the City of Riverside requirements ( <b>CM-GEO-1a</b> and <b>CM-GEO-2a</b> ). Although substantial damage to structures may be unavoidable during large earthquakes, the proposed structures would be designed to resist structural collapse and thereby provide reasonable protection from serious injury, catastrophic property damage, and loss of life.
<b>Objective PS-2:</b> Reduce potential flood hazards within Riverside.	<b>Consistent.</b> Implementation of the Specific Plan would result in increased impervious surfaces within the SPA, which could exacerbate existing flooding conditions. Flood control improvements of Highgrove Channel, Springbrook Wash, and University Wash, as outlined in <b>MM-HYD-1, MM-HYD-2a, MM-HYD-2b, and MM-HYD-2c</b> ; storm drain installation in the northern project area, as outlined in <b>MM-HYD-4</b> ; and completion of project-specific hydrology/drainage reports, as outlined in <b>MM-HYD-5</b> , would prevent continued flooding and prevent increased runoff associated with proposed development. Projects proposed within the Riverside Levee 2 flood protection area must confirm FEMA approval of the levee accreditation prior to development plan approval ( <b>MM-HYD-3a</b> ); and project sites within a 100-year Federal Emergency Management Agency (FEMA) floodplain would require approval of a FEMA Map Revision ( <b>MM-HYD 3b</b> ), and Furthermore, mandated new construction within a revised 100-year FEMA floodplain would be required to construct the development a minimum of 2 feet above the 100-year flood elevations ( <b>MM-HYD-6</b> ).
<b>Objective PS-5:</b> Provide Safe pedestrian and bicyclist environments Citywide.	<b>Consistent.</b> The Development Standards and Guidelines established for the Northside Specific Plan seek to allow for enhanced connections between different parts of the Northside community, for all modes of travel. The Northside Specific Plan would increase connectivity within the SPA through development of strategically placed complete streets corridors (see Figure 2-10, Complete Street Corridors) and a network of parks, trails and open space areas (Figure 2-11, Proposed Open Space and Trails Map), so residents can easily access amenities and services throughout the community.
<b>Objective PS-6:</b> Protect property in urbanized and nonurbanized areas from fire hazards.	<b>Consistent.</b> The Northside Specific Plan would incorporate fire safety features in compliance with 2019 California Fire Code Standards (such as incorporation of sprinklers, maintenance of all flammable vegetation or other combustible growth within 30 feet of buildings, and other building code requirements). To minimize impediments to emergency access, all on-site roadways would be designed in compliance with the City of Riverside Fire Code, City of Colton Fire Code, and County of Riverside Operational Area – Multi-Jurisdictional

Table 3.10-2. Project Consistency with Applicable Plans

General Plan Goal/Objective/Policy	Proposed Project Consistency
	Local Hazard Mitigation Plan. Refer to <b>CM-WDF-1a through CM-WDF-6</b> . Per Section 3.13, Public Services, of this EIR, no additional fire protection facilities are needed at this time to serve the SPA. The City of Colton and County of Riverside have impact fee programs to assist with ability to provide fire services ( <b>CM-SRV-1 and CM-SRV-2</b> )
<b>Objective N-1:</b> Minimize noise levels from point sources throughout the community and, wherever possible, mitigate the effects of noise to provide a safe and healthful environment.	<b>Consistent.</b> Future projects within the SPA would be required to comply with existing regulations for stationary noise sources ( <b>CM-NOI-1 and CM-NOI-4</b> ), which would result in future uses minimizing noise levels from point sources.
<b>Objective N-4:</b> Minimize ground transportation-related noise impacts.	<b>Consistent.</b> The Northside Specific Plan would implement <b>CM-NOI-1 and CM-NOI-4</b> to reduce ground transportation-related noise impacts to the extent feasible.
<b>Objective AQ-1:</b> Adopt land use policies that site polluting facilities away from sensitive receptors and vice versa; improve job-housing balance; reduce vehicle miles traveled and length of work trips; and improve the flow of traffic.	<b>Consistent.</b> The Northside Specific Plan would help the City of Riverside achieve this objective through implementation of smart growth principles through all steps of the land development process. See response to Objective LU-8 for a discussion of applicable smart growth principles. In addition, future development would be required to comply with South Coast Air Quality Management District permitting requirements ( <b>CM-AQ-4</b> ) that avoid pollution impacts to sensitive receptors.
<b>Objective AQ-2:</b> Reduce air pollution by reducing emissions from mobile sources.	<b>Consistent.</b> The Northside Specific Plan is designed for residents and visitors to move about the community safely and efficiently via various modes of transportation. Bike lanes and sidewalks would be developed along community corridors to provide easy access to nearby parks, amenities, and the trail system. In addition, more Riverside Transportation Authority bus stops would be placed throughout the SPA to better connect the residential land uses to parks, schools, and employment areas. Overall, the proposed improvements to the transportation network would reduce reliance on personal vehicles to access amenities within the SPA and strengthen the connection to the regional transit system, thus reducing mobile source emissions. The Northside Specific Plan also provides for a wider mix of uses, allowing residents to potentially live closer to employment as well as creating a more walkable community to local commercial uses. The Northside Specific Plan also includes <b>MM-AQ-4</b> to reduce vehicle miles travelled to reduce emissions. Other vehicular reduction measures include <b>MM-AQ-5</b> that encourages electric vehicles and <b>MM-AQ-6</b> that restricts truck idling. These measures are consistent with this objective.
<b>Objective AQ-4:</b> Reduce particulate matter, as defined by the Environmental Protection Agency (EPA), as either airborne photochemical precipitates or windborne dust.	<b>Consistent.</b> Beyond standard dust control measures required by regulations ( <b>CM-AQ-1</b> ), particulate matter generated through construction and operation of the Northside SPA would be reduced with <b>MM-AQ-1</b> , and <b>MM-AQ-2</b> . <b>MM-AQ-1</b> provides detailed mitigated for emission reductions in construction equipment and <b>MM-AQ-2</b> requires additional dust control measures during construction. Refer to Section 3.2, Air Quality, for additional details.

Table 3.10-2. Project Consistency with Applicable Plans

General Plan Goal/Objective/Policy	Proposed Project Consistency
<b>Objective PF-3:</b> Maintain sufficient levels of wastewater service throughout the community.	<b>Consistent:</b> According to the Northside Specific Plan, the Wastewater Collection & Treatment Facilities Integrated Master Plan determined that the majority of the trunk lines within the City of Riverside in the SPA, where the majority of the project development will take place, are functioning at a 75% capacity or lower. Additionally, only a small portion of existing lines would need improvements, therefore maintaining sufficient levels of wastewater services throughout the Northside SPA is feasible. Future development would be required to provide wastewater improvements or provide applicable DIFs ( <b>CM-US-2a</b> ). Refer to Section 3.17, Utilities and Services Systems, for additional details.
<b>Objective PF-4:</b> Provide sufficient levels of storm drainage service to protect the community from flood hazards and minimize the discharge of materials into the storm drain system that are toxic, or which would obstruct flows.	<b>Consistent.</b> As discussed in Section 3.9, Hydrology and Water Quality, there are existing flood hazard issues within the SPA in the City of Riverside. Preliminary findings of the hydrology modeling indicate that existing regional drainage channels do not have sufficient capacity during larger storm events. Mitigation Measures <b>MM-HYD-1</b> , <b>MM-HYD-2</b> (a and b), and <b>MM-HYD-3</b> (a, b, and c) are required to improve existing regional drainage channels within the SPA. The City evaluated potential options to ensure these improvements could be implemented, such as creating a Community Facilities District for storm drain improvements.  Future developments would be required to install upgrades to the storm drain system in areas currently lacking storm drains ( <b>MM-HYD-4</b> ) and prepare project-specific hydrology/drainage reports ( <b>MM-HYD-5</b> ) to ensure that individual projects are designed in compliance with local requirements. In addition, future developments must comply with <b>MM-HYD-6</b> to ensure that no development is constructed within 2 feet of FEMA anticipated flood elevations. Furthermore, projects proposed as part of the Northside Specific Plan would be required to implement a SWPPP during construction and a WQMP during operations ( <b>CM-HYD-1</b> ) and comply with the applicable MS4 permit ( <b>CM-HYD-2a</b> and <b>CM-HYD-2b</b> ) to minimize discharge of polluted materials into the storm drain system.
<b>Objective PF-10:</b> Meet the varied recreational and service needs of Riverside’s diverse population.	<b>Consistent.</b> The Specific Plan includes a system of trails and pathways that provide pedestrian/bicycle access to open space and park areas within the SPA and recreational opportunities for residents. Overall, the Northside community would include 233 acres of parkland. The Specific Plan also allows for the future development of a police station within the Northside Village Center. The proposed development within the SPA would result in an increased need for public services such as schools, police, and fire. Future projects within the SPA would be subject to payment of a school development fee, to be determined by the affected school district, to accommodate growth and reduce overcrowding. Impacts to other community facilities and services, such as fire and police, are anticipated to be less than significant. Refer to Sections 3.14, Recreation, and 3.13, Public Services, for additional details.
<b>Objective PR-1:</b> Provide a diverse range of park and recreational facilities that are responsive to the needs of Riverside residents.	<b>Consistent.</b> The Northside Specific Plan includes approximately 233 acres of parkland, including a community park, potential for redevelopment of the Ab Brown Sports Complex, a network of trails, and restoration of the Springbrook Arroyo. In addition, a green corridor is proposed adjacent to the Santa Ana River in Pellissier Ranch (in the City of Colton), which could include public and private recreational

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General Plan Goal/Objective/Policy	Proposed Project Consistency
	development adjacent to the river trail, and an agriculture/open space corridor at the base of La Loma Hills to provide a buffer between urban and natural areas. Proposed recreational facilities would be accessible to all residents and provide pedestrian/bicycle connectivity to amenities throughout the SPA.
<b>Objective PR-2:</b> Increase access to existing and future parks and expand pedestrian linkages between park and recreational facilities throughout Riverside.	<b>Consistent.</b> The Specific Plan includes approximately 233 acres of parkland. See response to Objective PR-1 for a description of the proposed recreation and open space improvements.
<b>Objective HP-1:</b> To use historic preservation principles as an equal component in the planning and development process.	<b>Consistent.</b> Known historic resources present within Subareas 6, 13 to 15, and 17 would not result in not impacts associated with the proposed project because the majority of these subareas is urban in nature and/or the proposed land use is consistent with the permitted land use. Known historic resources are present within Subareas 1 through 5 and 7 through 12 that may be impacted by future development. To minimize impacts to the extent feasible, the City Historic Preservation Officer shall determine if a historic built environment resource over 45 years of age has potential to be affected by proposed development and implement preservation measures consistent with Secretary of the Interior’s Standards for the Treatment of Historic Properties to the extent feasible ( <b>MM-CUL-1</b> ).  The proposed land use designation of Trujillo Adobe Heritage Village (TAHV) and the associated restoration of the Trujillo Adobe would preserve the historic adobe, but development within Subarea 16 has potential to impact other historic resources present on site. A qualified historic preservation specialist must be retained to assist with additional analysis, design review, and consultation in consideration of the Trujillo Adobe restoration ( <b>MM-CUL-2</b> ). Required mitigation would ensure historic preservation is an essential component of the planning and development process.
<b>Objective HP-5:</b> To ensure compatibility between new development and existing cultural resources.	<b>Consistent.</b> Known archaeological sites are present within the SPA that could be impacted by implementation of the Northside Specific Plan. A qualified archaeologist shall conduct identify and protect known resources ( <b>MM-CUL-4</b> ) to reduce impacts to known resources. It is possible that intact archaeological deposits are present at subsurface levels that could be impacted by future development within the SPA. Construction work within 100 feet of a find must immediately stopped until a qualified archaeologist can evaluate the significance of the find and evaluate potentially significant impacts to archaeological resources ( <b>MM-CUL-3</b> ).
<b>City of Colton General Plan</b>	
<b>Goal LU-1:</b> Achieve a balance of land use types that create diverse opportunities for housing, employment, commerce, recreation, and civic engagement.	<b>Consistent.</b> The proposed project includes general plan and zoning amendments within the Pellissier Ranch area, within the City of Colton to encourage development of a high-tech business park with riverfront housing opportunities and commercial development in close proximity to housing and jobs. Developers will pay a fair-share to expand existing infrastructure into the vacant portions of Pellissier Ranch (Policy LU-1.5). Green corridors would be developed adjacent to La Loma Hills and the Santa Ana River to provide a buffer between the urban and natural environments (Policy LU-1.8). A Transition Zone Overlay would apply to Subarea 1 to

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General Plan Goal/Objective/Policy	Proposed Project Consistency
	allow for transition of existing Business/Office Park (B/OP) land uses to High Density Residential (HDR) land uses (Policy LU-1.9).
<b>Goal LU-2:</b> Create great places in Colton through use of high-quality streetscapes and design requirements.	<b>Consistent.</b> The Development Standards and Guidelines established for the Northside Specific Plan include guidelines for landscaping within developments, public rights-of-way, and open space/recreation areas to establish a cohesive vision and a stronger sense of community identity (Policy LU-2.2). Developers must demonstrate consistency with all applicable design standards for the SPA (Policy LU-2.3).
<b>Goal LU-3:</b> Ensure a strong and diversified economic base to provide for fiscal stability and sustainability.	<b>Consistent.</b> The Northside Specific Plan would allow more diversified land uses than the permitted designations (Policy LU-3.1); allow the majority of the area to be developed with employment-generating uses (Policy LU-3.2); pursue a variety of approaches to support public services, municipal programs and capital investments that support City businesses (Policy LU-3.4); and encourage development of clean-tech and green businesses (Policy LU-3.4).
<b>Goal LU-4:</b> Incorporate green building and other sustainable building practices into development projects.	<b>Consistent.</b> The Pellissier Ranch area would provide an opportunity to create an Industrial Research Park that would feature the best practices in sustainable urban design and green building. The Northside Specific Plan aims to capitalize on Sustainable Environmental Technologies, develop new buildings to Leadership in Energy and Environmental Design (LEED) standards (Policy LU-4.2) and comply with Title 24 of the California Administrative Code (Policy LU-4.3). In addition, open space corridors proposed along the boundary of Pellissier Ranch adjacent to the La Loma Hills and the Santa Ana River would provide a buffer between to urban and natural environment, ensuring the design would respect the natural site features (Policy LU-4.6).
<b>Goal LU-5:</b> Reduce use of energy resources citywide, with a key goal of reducing the City's carbon footprint.	<b>Consistent.</b> The proposed project would incorporate all required local and state regulations with respect to incorporation of energy conservation feature into the design of construction and site development (Policy LU-5.1). The mobility plan would increase opportunities for multi-modal transportation within the SPA and connectivity to adjacent neighborhoods, thus reducing dependence on private vehicles and reducing carbon emissions associated with mobile sources (Policy LU-5.4). The proposed project would not conflict with the Climate Action Plan (Policy LU-5.6). While the future development allowed under the Northside Specific Plan would potentially conflict with the South Coast Air Quality Management District Air Quality Management Plan, the Northside Specific Plan includes <b>MM-AQ-1 to MM-AQ-8</b> consistent with Policy LU-5.7.
<b>Goal LU-6:</b> Minimize or eliminate land use conflicts where residences are in close proximity to rail lines, freeways, and industrial businesses.	<b>Consistent.</b> Industrial land uses are limited to the northern portion of the SPA within the Pellissier Ranch area. The Development Standards and Guidelines established for the Northside Specific Plan include guidelines for development of business park land uses along the western edge of the Industrial Research Park designation adjacent to a proposed High Density Residential (HDR) land use area (Policy LU-6.1) and in the southern portion of the M-1 designation (Policy LU-6.3). In addition, residential developments would be allowed via the Residential Overlay in this area. Business park buildings would typically include smaller scale industrial warehouses and office parks that provide adequate buffering from adjacent industrial edges (Policy LU-6.4). As applicable, future industrial developments would be required to comply with regulations such as

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	air quality ( <b>CM-AQ-4</b> ), hazardous materials ( <b>CM-HAZ-1</b> ) and noise ( <b>CM-NOI-2</b> ) that limit land use conflicts. The SPA would not be located adjacent to freeways or rail lines in the City of Colton.
<b>Goal LU-7:</b> Provide opportunities for all neighborhoods in Colton to be in a healthy and attractive physical condition.	<b>Consistent.</b> The Northside Specific Plan sets forth a vision for the Northside Community and a roadmap for implementation of the Northside Specific Plan. The Development Standards and Guidelines of the plan help to create and preserve attractive streets and residential areas that appeal to long-time and new residents and visitors (Policy LU-7.1).
<b>Goal LU-9:</b> Maintain a diverse mix of commercial uses that benefit the community in terms of needed commercial services, tax revenue, and employment opportunities.	<b>Consistent.</b> Subarea 2 would allow development of light industrial land uses and an area of commercial land uses west of Main Street and north of Pellissier Road. Inclusion of a commercial zone within Pellissier Ranch would provide a flexible market for a variety of businesses to establish (Policy LU-9.1). Specific architectural themes would be utilized for development within the SPA to maintain a distinct sense of place for the community (Policy LU-9.3).
<b>Goal LU-11:</b> Achieve and maintain a strong and highly competitive Industrial base that provides attractive, high-quality developments and varied employment opportunities.	<b>Consistent.</b> Pellissier Ranch would accommodate an industrial base within the SPA. Light industrial land uses would be permitted within the M-1 zoning, consistent with the Development Standards (Policy LU-11.1). Less intensive uses would be planned near residential to provide an adequate buffer (Policy LU-11.5). Additionally, the Industrial Research Park designation within Pellissier Ranch is intended to create more employment per square foot than logistics, and to have higher paying jobs as it encourages research, office, and corporate campus settings with nearby housing and public amenities.
<b>Goal LU-12:</b> Provide for open space and recreation areas that meet the needs of Colton residents.	<b>Consistent.</b> A green corridor is proposed adjacent to the Santa Ana River in Pellissier Ranch, which could include public and private recreational development associated with the river and an agriculture/open space corridor at the base of La Loma Hills to provide a buffer between urban and natural areas and extension of the trail system to the Santa Ana River. Approximately 3 acres at the north end of the Pellissier Ranch area would be designated Outdoor Commercial Recreation to accommodate low density private recreation adjacent to the Santa Ana River, such as a recreational vehicle park or campground. .
<b>Goal LU-13:</b> Protect open space lands necessary for flood control and habitat preservation purposes, and to provide buffers from identified earthquake faults and other public safety hazards.	<b>Consistent.</b> Within the SPA, there are no areas currently designated for open space (Figure 2-5). Thus, the Northside Specific Plan would not be removing any existing open space lands. In addition, none of the areas within the SPA are designated for biological conservation (Figure 3.3-2 and 3.3-4). No known earthquake faults are within the SPA (Figure 3.6-1). None-the-less, it is noted it is a goal of the Northside Specific Plan to preserve the majority of AB Sports Complex and the former Riverside Golf Course as open space, parks, and trails (Figure 2-6), and realign the Springbrook Arroyo within the former Riverside Golf Course to improve flood control. The City of Riverside would also pursue additional flood improvements to the extent feasible, as identified in MM-HYD-1 to MM-HYD-6.
<b>Goal LU-21:</b> Create a residential neighborhood in the Pellissier Ranch/La Loma Hills area that consists largely of low density or clustered residential development, with support	<b>Consistent.</b> An area of high density residential and general commercial land uses is proposed adjacent to the Santa Ana River within the Pellissier Ranch area. In addition, Subarea 2 is subject to a Residential Overlay that would allow residential uses within the designated M-1 areas. Residents within Pellissier Ranch would have direct access to the Santa Ana River Trail and the open space corridors proposed along the northern

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neighborhood commercial uses, open space, and compatible uses that complement the natural landscape, the Santa Ana River, and the La Loma Hills.	and western boundaries of Pellissier Ranch. Consistent with existing zoning, the remainder of the Pellissier Ranch area would be designated for light industrial land uses, including high tech industrial and research uses within the Industrial Research Park designation.
<b>Goal M-1:</b> Provide an integrated and balanced multi-modal transportation network of Complete Streets to meet the needs of all users and transportation modes.	<b>Consistent.</b> Three new roadways are proposed within the Pellissier Ranch Area consistent with the City of Colton General Plan. In addition to the roadways, a trail system would be developed within or adjacent to the open space buffer area proposed along the base of La Loma Hills, providing pedestrian/bicycle access to the Santa Ana River Trail to the north, and a proposed community park to the south.
<b>Goal M-3:</b> Develop a safe, efficient, and attractive street system that provides capacity to meet existing and future demand.	<b>Consistent.</b> The majority of the project site within the City of Colton is undeveloped. All roadways necessary to support proposed development within Pellissier Ranch would be designed and constructed consistent with all applicable City of Colton standards.
<b>Goal M-5:</b> Maintain an efficient network of goods and freight movement that supports the needs of Colton businesses while reducing truck and rail traffic impacts on residential neighborhoods.	<b>Consistent.</b> During development of the Specific Plan, existing truck routes along Main Street (between the northern City boundary and SR-60) and Columbia Avenue (between Main Street and I-215) would be modified to avoid truck traffic within the proposed complete streets corridors. Signage would be installed within the SPA to divert truck traffic to Center Street between Main Street and I-215. In addition, signage would be installed on Center Street to prohibit large trucks from using Orange Street as a bypass route. The proposed modifications would direct truck traffic to collector and arterial roadways while avoiding residential neighborhoods and complete streets corridors.
<b>Goal M-6:</b> Ensure the provision of adequate, convenient, and safe parking for all land uses.	<b>Consistent.</b> The design of future development with Pellissier Ranch would comply with the requirements and standards pertaining to the provision and design of off-street parking facilities as stated in Chapter 18.36 of the City of Colton Municipal Code. The M-1 and C-2 would be required to provide and design loading areas in compliance with the loading requirements stated in Chapter 18.36 of the Colton Municipal Code. Prior to issuance of building permits, proposed development would be required to demonstrate compliance with the parking and loading requirements stated in Chapter 18.36 through the City's review of building plans.
<b>Principle 1.</b> Preserve and protect hillside and environmentally sensitive areas designated for growth through the use of strict hillside development standards. (Open Space and Conservation Element)	<b>Consistent.</b> Pellissier Ranch, located at the north end of the SPA, is proposed at the base of a hillside. The Northside Specific Plan does not include any development on the hillside, and greenery and trails along the north and east edges of this area would provide an additional buffer between developable areas and the adjacent hillside (see Figure 2-6 in Chapter 2).
<b>GOAL S-1</b> Improve the community's resilience to seismic and geologic hazards by ensuring the integrity of the built environment.	<b>Consistent.</b> The SPA is not located within an Alquist-Priolo Earthquake Fault Zone, but it is within a seismically active area. As with all development within the County of Riverside, City of Riverside, and City of Colton, development within the SPA would be required to comply with the seismic safety requirements of the City of Colton Building Codes ( <b>CM-GEO-2c</b> ).

Table 3.10-2. Project Consistency with Applicable Plans

General Plan Goal/Objective/Policy	Proposed Project Consistency
<p><b>Goal S-2:</b> Anticipate the risks and mitigate the effects that flood hazards pose to the community.</p>	<p><b>Consistent.</b> The flood hazard risks have been addressed herein, in Section 3.9, Hydrology and Water Quality, as well as in the associated Appendix F, Hydrology and Water Quality Letter Report. Implementation of the Northside Specific Plan would result in increased impervious surfaces within the SPA, which could exacerbate existing flooding conditions. Flood control improvements would be required for Highgrove Channel, Springbrook Wash, and University Wash to provide adequate drainage capacity for existing and proposed conditions. The City evaluated potential options to ensure these improvements could be implemented, such as creating a Community Facilities District for storm drain improvements. At this time there is no mechanism to ensure these improvements identified in <b>MM-HYD-1</b> or <b>MM-HYD-2c</b> would be completed. In addition, because the improvement would be located within the jurisdiction and control of the Riverside County Flood Control and Water Conservation District and FEMA, the City of Riverside cannot ensure that they will permit the improvement to be made. As such, these hydrology impacts are considered significant and unavoidable.</p> <p>In addition, FEMA flood map revisions and levee accreditation, as outlined in <b>MM-HYD-3a</b> and <b>MM-HYD-3b</b>, would be required to prevent development within a floodplain. Similar to as described above, measures are under the jurisdiction of FEMA. As such, these flood plain impacts are considered significant and unavoidable. The Northside Specific Plan would mitigate for impacts to the extent feasible consistent with this goal.</p>
<p><b>GOAL S-3:</b> Safeguard the community from the threat of urban and wildfire hazards.</p>	<p><b>Consistent.</b> The City of Colton General Plan Safety Element identifies the project area within the City of Colton’s jurisdiction as having a Moderate Wildfire Hazard Rating. The Northside Specific Plan would incorporate fire safety features in compliance with 2016 California Fire Code Standards (<b>CM-WDF-3</b>), and all on-site roadways would be designed in compliance with the City of Riverside Fire Code, City of Colton Fire Code, and County of Riverside Uniform Fire Code (<b>CM-WDF-2a</b> and <b>CM-WDF-2c</b>) to safeguard the community from threat of fire hazards. In addition, proposed development projects within Pellissier Ranch must comply with applicable Mitigation Actions included in Table 6-2 of the City of Colton Local Hazard Mitigation Plan (<b>CM-WDF-1b</b>).</p>
<p><b>GOAL S-5:</b> Promote the continued well-being of all Colton community members through comprehensive emergency management.</p>	<p><b>Consistent.</b> Emergency vehicle access to the SPA would continue to be provided along I-215, South Riverside Avenue/Main Street, and Columbia Avenue with the implementation of the Northside Specific Plan in accordance with the City of Colton General Plan Safety Element and City of Riverside General Plan Public Safety Element.</p>
<p><b>GOAL S-6:</b> Minimize the community’s risk of exposure to hazardous materials and wastes.</p>	<p><b>Consistent.</b> In the Pellissier Ranch area of the SPA, guidance concerning the “development edges” are required in the Development Standards and Guidelines to buffer proposed industrial, residential, and recreational land uses. In addition, businesses that handle hazardous materials are required to prepare and comply with a Hazardous Materials Business Plan (<b>CM-HAZ-1</b>). Future land uses that transport hazardous materials would be required to comply with all safety measures set forth under Title 13 California Code of Regulations, Division 2, Chapter 6 of the California Highway Patrol (<b>CM-HAZ-2</b>). Future development within</p>

Table 3.10-2. Project Consistency with Applicable Plans

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	the Northside Specific Plan would also be required to comply with noise regulations health risk siting ( <b>MM-AQ-9</b> ), toxic air contaminant reduction ( <b>MM-AQ-10</b> ), health risk assessment requirements ( <b>MM-AQ-11</b> ) measures.
<b>Riverside County General Plan</b>	
<b>LU 8.6:</b> Create Practical incentives for business development, and avoid disincentives.	<b>Consistent.</b> The vision of the Northside Specific Plan would be applied to the portion of the SPA in unincorporated Riverside County, within the City’s Sphere of Influence (SOI). In the event the City annexes this portion of the SPA into the City, the proposed land uses would apply, and The Development Standards and Guidelines established for the Northside Specific Plan would also apply to this area, including development incentives within the SPA such as density bonuses, greater building heights, expedited review, tax abatements, and reduced parking requirements within mixed use designations. However, the City of Riverside is not proposing a Zone Change for the SPA within the County of Riverside, but rather revising the City’s General Plan to update the land uses within the City’s SOI. The County’s existing zoning would continue to apply until which time the County chooses to voluntarily adopt the Specific Plan, or properties are annexed into the City. Furthermore, the revisions to the SOI are not significantly different from the existing land use designations for the County areas and, therefore, would not create significant inconsistency between the current County zoning and future City Zoning, should County properties be annexed.
<b>LU 8.10:</b> Locate job centers so they have convenient access to Riverside County's multi-modal transportation facilities.	<b>Consistent.</b> Two transit stops are envisioned within the portion of the SPA in unincorporated Riverside County, within the City’s SOI. In addition, “complete streets” improvements are proposed along Center Street, which would feature two lanes in each direction, a buffered sidewalk, and a buffered multi-use trail. The multi-use trail would provide access to other subareas within the SPA via internal trails. However, The City of Riverside is not proposing a Zone Change for the SPA within the County of Riverside, but rather revising the City’s General Plan to update the land uses within the City’s SOI. The County’s existing zoning would continue to apply until which time the County chooses to voluntarily adopt the Specific Plan, or properties are annexed into the City. Furthermore, the revisions to the SOI are not significantly different from the existing land use designations for the County areas and, therefore, would not create significant inconsistency between the current County zoning and future City Zoning, should County properties be annexed.
<b>LU 29.6:</b> Require that commercial projects abutting residential properties protect the residential use from the impacts of noise, light, fumes, odors, vehicular traffic, parking, and operational hazards.	<b>Consistent.</b> The Development Standards and Guidelines established for the Northside Specific Plan provide guidance concerning the “development edges” to buffer proposed industrial, residential, and recreational land uses. In addition, future development allowed by the Northside Specific Plan would be required to comply with noise regulations ( <b>CM-NOI-3</b> and <b>CM-NOI-6</b> ), odor measures ( <b>MM-AQ-12</b> and <b>MM-AQ-13</b> ), Transportation Demand Management (TDM) strategies ( <b>MM-AQ-4</b> ), air emission standards ( <b>CM-AQ-4</b> ), health risk siting ( <b>MM-AQ-9</b> ), toxic air contaminant reduction ( <b>MM-AQ-10</b> ), health risk assessment requirements ( <b>MM-AQ-11</b> ), and hazard measures ( <b>CM-HAZ-1</b> ) set forth in this EIR.

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General Plan Goal/Objective/Policy	Proposed Project Consistency
<p><b>LU 32.10:</b> Require that mixed-use developments be designed to mitigate potential conflicts between uses, considering such issues as noise, lighting, security, trash, and truck, and automobile access.</p>	<p><b>Consistent.</b> The Northside Specific Plan would include a General Plan Amendment within the City’s SOI, in Unincorporated Riverside County, from B/OP and C to Freeway Mixed-Use (FMU). FMU land uses adjacent to West La Cadena Drive would provide a buffer between existing residential development and I-215. However, The City of Riverside is not proposing a Zone Change for the SPA within the County of Riverside, but rather revising the City’s General Plan to update the land uses within the City’s SOI. The County’s existing zoning would continue to apply until which time the County chooses to voluntarily adopt the Specific Plan, or properties are annexed into the City. Future development within the FMU designation would comply with all building codes and municipal codes that require appropriate design to lessen effects due to noise, lighting, security, trash, and truck and automobile access (<b>CM-GEO-1a</b>, <b>CM-GEO-1b</b>, and <b>CM-GEO-1c</b>). Refer to LU 29.6 above as well.</p>
<p><b>S 5.1</b> Develop and enforce construction and design standards that ensure that proposed development incorporates fire prevention features through the following:</p>	<p><b>Consistent.</b> The project would incorporate fire safety features in compliance with 2019 California Fire Code Standards (such as incorporation of sprinklers, maintenance of all flammable vegetation or other combustible growth within 30 feet of buildings, and other building code requirements). To minimize impediments to emergency access, all on-site roadways would be designed in compliance with the City of Riverside Fire Code, City of Colton Fire Code, and County of Riverside Operational Area – Multi-Jurisdictional Local Hazard Mitigation Plan, as applicable</p>
<p><b>S 5.6</b> Demonstrate that the proposed development can provide fire services that meet the minimum travel times identified in Riverside County Fire Department Fire Protection and EMS Strategic Master Plan.</p>	<p><b>Consistent.</b> The project would incorporate all fire safety features in compliance with 2019 California Fire Code Standards, and any applicable regulations from the City of Riverside and the City of Colton. As discussed in Section 3.13, Public Services, of this EIR, the buildout of the Northside SPA is not anticipated to adversely impact fire protection and EMS services. Due to a mutual aid agreement, services provided by the RFD, CFD, and the RCFD would be able to adequately serve the Northside SPA within the minimum travel times identified in the Riverside County Fire Department Fire Protection and EMS Strategic Master Plan. All development within the SPA would comply with all applicable fire regulations and codes, and would pay required DIFs (<b>CM-SRV-1</b> and <b>CM-SRV-2</b>). Payment of these fees would go towards fire service departments to add funds that would assist in their ability to provide adequate services to the project buildout.</p>
<p><b>N-1.5</b> Prevent and mitigate the adverse impacts of excessive noise exposure on the residents, employees, visitors, and noise-sensitive uses of Riverside County.</p>	<p><b>Consistent.</b> The Northside Specific Plan would implement appropriate mitigation measures (<b>MM-NOI-1</b>) to reduce construction noise impacts. <b>MM-NOI-1</b> stipulates that all construction contractors shall equip all construction equipment, fixed or mobile, with properly operating and maintained mufflers, air intakes, shrouds, etc. consistent with manufacturers’ standards. Additionally, construction contractors shall locate equipment staging in areas that will create the greatest distance between on-site noise-producing equipment, vehicles, and processes and the nearest noise-sensitive receptors to the project site.</p> <p>The land uses located next to large roadways may be exposed to noise in excess of the compatibility standard unless proper design measures are included. A noise analysis would be conducted prior to the issuance of permits to show future project design demonstrates compliance with combability standards (<b>CM-</b></p>

Table 3.10-2. Project Consistency with Applicable Plans

General Plan Goal/Objective/Policy	Proposed Project Consistency
	<p><b>NOI-3).</b> EIR Section 3.11.6 identifies that in certain instances noise levels may not be mitigable when open passive parks are located adjacent to noisy roadways, or where historic structures are located next to busy roadways and the use is changed to a more noise-sensitive land use. The Northside Specific Plan does not designate any passive parks within the County of Riverside, however; it would change the current B/OP and Commercial use areas to Freeway Mixed-Use. As discussed in Section 2.4.1, the residential component of this mix use is intended to orient residential uses along the backside of La Cadena Drive, which would shield those residential uses from the traffic noise. Considering this, the allowance of continued commercial and the requirement <b>CM-NOI-3</b>, it is assumed that design measures could be implemented within the County of Riverside to achieve the compatibility standards.</p> <p>As detailed in Section 3.11, Noise, future projects in the County of Riverside would be subject to noise regulations for stationary sources. As future projects would comply with Ordinance 847 (<b>CM-NOI-6</b>), adverse noise impacts would be prevented.</p>
<p><b>N 1.6</b> Minimize noise spillover or encroachment from commercial and industrial land uses into adjoining residential neighborhoods or noise-sensitive uses.</p>	<p>See response to <b>N-1.5</b>.</p>
<p><b>N 1.7</b> Require proposed land uses, affected by unacceptably high noise levels, to have an acoustical specialist prepare a study of the noise problems and recommend structural and site design features that will adequately mitigate the noise problem.</p>	<p>See response to <b>N-1.5</b>.</p>
<p><b>Goal 1</b> To assist in the development of adequate housing to meet the County's fair share of the region's housing needs for all economic segments of the population, with an emphasis on lower-income households and households with special needs.</p>	<p><b>Consistent.</b> The Northside Specific Plan would potentially increase the number of dwelling units by 259 to 393 within the County of Riverside, therefore increasing the housing stock. There are approximately 300 existing dwelling units within the County of Riverside's portion of the SPA that would remain even with implementation of the Northside Specific Plan. Mixed use residential spaces and Medium Density Residential (MDR) are land uses proposed for the County of Riverside portion of the SPA. The mixed-use residential spaces would allow for higher density, which could accommodate lower-income households.</p>
<p><b>Goal 2</b> To conserve and improve the condition of the housing stock, particularly affordable housing.</p>	<p><b>Consistent:</b> The Northside Specific Plan would not remove any existing housing land use designations. The existing Medium Density Residential (MDR) use within the County of Riverside in the SPA would remain, and the housing in the County of Riverside portion of the SPA would increase by 393 dwelling units under maximum build out of the proposed project.</p>

Table 3.10-2. Project Consistency with Applicable Plans

General Plan Goal/Objective/Policy	Proposed Project Consistency
<b>Goal 5</b> Reduce per capita residential energy use.	<b>Consistent.</b> Projects within the Northside Specific Plan would be built in accordance with the current Title 24 standards at the time of construction ( <b>CM-AQ-3</b> ). As detailed in Section 3.5, Energy, the Northside Specific Plan would reduce energy usage consistent with this goal.

As identified in Table 3.10-2, implementation of the Northside Specific Plan has potential to be inconsistent with goals and/or policies in the City of Riverside, City of Colton, and County of Riverside General Plans. Potential inconsistencies with applicable goals/policies could result in significant environmental impacts associated with increased noise levels, flooding, and stormwater drainage. As such, the proposed project would result in a significant and unavoidable impact due to conflict with the City of Riverside, City of Colton, and County of Riverside General Plans.

### **Municipal Zoning Code**

**Less-Than-Significant Impact.** To ensure consistency between the Specific Plan and the agencies' municipal codes, the proposed project would include application for a Change of Zone with the City of Riverside and City of Colton to incorporate zoning designations that are consistent with the amended general plan land uses, where applicable. With adoption of the requested project approvals, including the Change of Zone, the project would be consistent with the City of Riverside and City of Colton. The City of Riverside is not proposing a Zone Change for the SPA within the County of Riverside, but rather revising the City's General Plan to update the land uses within the City's Sphere of Influence (SOI). The County's existing zoning would continue to apply until which time the County chooses to voluntarily adopt the Specific Plan, or properties are annexed into the City. Furthermore, the revisions to the SOI are not significantly different from the existing land use designations for the County areas and, therefore, would not create significant inconsistency between the current County zoning and future City Zoning, should County properties be annexed.

Where land use regulations and/or design standards of the cities of Riverside and Colton are inconsistent with the Specific Plan, the standards and regulations of the Northside Specific Plan would prevail. Any issue not specifically covered in the Northside Specific Plan would be subject to the applicable agency's Zoning Code. Therefore, impacts would be less than significant.

### **Western Riverside Multiple Species Habitat Conservation Plan**

**Less-Than-Significant Impact.** The Western Riverside Multiple Species Habitat Conservation Plan (Western Riverside County MSHCP) is a comprehensive, multi-jurisdictional plan that conserves endangered and threatened plant and animal species and associated habitats in western Riverside County. The MSHCP serves as a habitat conservation plan (HCP) pursuant to FESA Section 10(a)(1)(B), as well as a Natural Communities Conservation Plan under the Natural Communities Conservation Planning Act of 2001. The MSHCP allows the participating jurisdictions to authorize "take" of plant and wildlife species identified within the Plan Area. USFWS and CDFW have the authority to regulate the take of threatened, endangered, and rare species. Under the MSHCP, USFWS and CDFW will grant "take authorization" for otherwise lawful actions, such as public and private development that may incidentally take or harm individual species or their habitat outside of the MSHCP conservation area, in exchange for the assembly and management of a coordinated MSHCP conservation area. The City of Riverside and County of Riverside signed onto the MSHCP, but the City of Colton is not.

The MSHCP Plan Area encompasses approximately 1.26 million acres or about 2,000 square miles in western Riverside County. The MSHCP's goal is to form a 500,000 acre self-sustaining habitat reserve (MSHCP Reserve). The Western Riverside MSHCP overlaps the portion of the SPA within Riverside County and provides take of covered species pursuant to FESA Section (a)(1)(B) and the state Natural Communities Conservation Planning Act of 2001.

The SPA is located within the Highgrove and Cities of Riverside and Norco MSHCP Area Plans. The portions of the SPA in the MSHCP are not within Criteria Cells, meaning that none of the SPA is needed for conservation as part of assembling the Reserve.

All portions of the SPA within a special species survey area must perform a habitat assessment, focused surveys, and prepare the appropriate documents before future development can begin. Future development in the SPA in the City of Riverside and the County of Riverside must comply with all relevant measures of the MSHCP. The jurisdictions under the MSHCP within the Northside Specific Plan would be compliant with all relevant policies outlined in the MSHCP. The MSHCP measures that apply to the SPA are outlined below as presented in MSHCP Volume I, Section 6.0. Details of the MSHCP is available in Section 3.3, Biological Resources.

- Riparian/Riverine and Vernal Pools Guidelines (Section 6.1.2)
- Narrow Endemic Plant Species (Section 6.1.3)
- Additional Survey Needs and Procedures (Section 6.3.2)
- Urban/Wildlands Interface (Section 6.1.4)

The Northside Specific Plan would be consistent with all related policies underlined in the Western Riverside County MSHCP. Therefore, impacts would be less than significant.

### Climate Action Plans

**Less-Than-Significant Impact.** The City of Riverside, City of Colton, and County of Riverside all have Climate Action Plans (CAPs) that employs local measures to help the respective jurisdiction meet its GHG reduction targets for 2035. The CAP plans and applicable local measures are described in Section 3.10.3, Relevant Plans, Policies, and Ordinances, and in detail in Section 3.7, Greenhouse Gas Emissions.

Each CAP identified in this section includes tree planting program measures to reduce energy usage by creating cooler environments through environmental design and planning. The Northside Specific Plan would create more open space within the SPA, which would features water efficient landscaping and tree plantings. Alternative transportation methods were emphasized in each CAP. The Northside Specific Plan would expand bicycle and pedestrian corridors and would have 2.3 miles of Class I bike paths, 5.2 miles of Class II bike lanes, 2.5 miles of Class IV cycle tracks, and 9.5 miles of sidewalks (Section 2.4.2, Circulation, Mobility and Trails). The Northside Specific Plan would also design streets with a complete street concept, which would create bike lanes, plant buffers, angled parking, reduced widths for vehicular lanes, and turn lanes with medians (Section 2.4.2, Circulation, Mobility and Trails). Mixed use land uses would be increased with implementation of the Northside Specific Plan. These mixed use areas would assist in reducing VMTs within the SPA, therefore reducing GHG emissions.

The Northside Specific Plan would comply with all related CAP measures for each respective jurisdiction. Refer to Section 3.7, Greenhouse Gas emissions, for more details. Overall, Northside Specific Plan would be consistent with the applicable CAPs, and impacts would be less than significant.

### South Coast Air Quality Management Plan

**Less-Than-Significant Impact.** The standards related to land use and planning under the South Coast Air Quality Management Plan as described in Section 3.1.3, Relevant Plans, Policies, and Ordinances, discuss reducing source emissions through lowered VMTs, compliance with criteria air pollutant emission standards, and compliance with air toxics emission standards. All development within the Northside Specific Plan would comply with all air quality standards on a federal, state, and local level. As discussed earlier, the creation of bike lanes, sidewalks, and

complete streets and establishment of mixed use zones would encourage a decrease of VMTs. However, implementation of the Northside Specific Plan would create significant and unavoidable impacts due to the lack of project-specific information available at this time. As a result, the effectiveness in reducing construction and operational emissions cannot be accurately quantified and there would be a potential conflict with the South Coast Air Quality Management Plan. Therefore, the Northside Specific Plan would be inconsistent with the South Coast Air Quality Management Plan and would result in a significant impact (**Impact LU-1**).

### 3.10.5 Mitigation Measures

State CEQA Guidelines Section 15126.4 requires EIRs to describe feasible measures that can minimize significant adverse impacts. The following mitigation measures have been incorporated from other impact sections in this EIR to reduce potentially significant impacts related to land use during implementation of the Northside Specific Plan.

Mitigation measures **MM-AQ-1 through MM-AQ-8** shall be implemented to ensure consistency with the 2016 AQMP, reduce fugitive dust emissions, reduce mobile emissions, and reduce the use of energy resources consistent with applicable goals and policies. Mitigation measures **MM-AQ-9 through MM-AQ-13** shall be implemented to minimize exposure of sensitive receptors to hazardous air emissions and odors. See Section 3.2, Air Quality.

Mitigation measures **MM-HYD-1 through MM-HYD-6** shall be implemented to reduce flood hazards and provide sufficient storm drainage capacity to support implementation of the Northside Specific Plan. See Section 3.9, Hydrology and Water Quality.

Mitigation measure **MM-NOI-1** shall be implemented to reduce construction noise exposure to existing and proposed land uses within the SPA. See Section 3.11, Noise

### 3.10.6 Level of Significance After Mitigation

Consistency analysis included in Table 3.10-2 included implementation of all applicable mitigation measures and compliance measures. With incorporation of all applicable mitigation measures, the proposed project would conflict with the City of Riverside, City of Colton and County of Riverside General Plan goals and/or policies, resulting in potential significant and unavoidable environmental impacts associated with noise level increases, flooding, and storm water drainage.

Implementation of the Northside Specific Plan would be consistent with the SCAQMD Air Quality Management Plan, Western Riverside County MSHCP, applicable CAPs, City of Riverside zoning, and City of Colton zoning.

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## 3.11 Noise

This section describes the existing noise conditions of the project area and vicinity, identifies associated regulatory requirements, evaluates potential impacts, and identifies mitigation measures related to implementation of the proposed project. The information and analysis presented in this section is based on the Riverside-Colton Northside Specific Plan Baseline Opportunities and Constraints Analysis prepared by Rick Engineering (2017; referred to herein as the “baseline analysis”) and provided as Appendix B. In addition, noise calculations completed as a part of this analysis are included as Appendix G.

### 3.11.1 Existing Conditions

#### 3.11.1.1 Noise Characteristics

##### **Sound, Noise, and Acoustics**

Sound can be described as the mechanical energy of a vibrating object transmitted by pressure waves through a liquid or gaseous medium (e.g., air) to a hearing organ, such as a human ear. Noise is defined as loud, unexpected, or annoying sound.

In the science of acoustics, the fundamental model consists of a sound (or noise) source, a receptor, and the propagation path between the two. The loudness of the noise source and obstructions or atmospheric factors affecting the propagation path to the receptor determine the sound level and characteristics of the noise perceived by the receptor. The field of acoustics deals primarily with the propagation and control of sound.

##### ***Frequency***

Continuous sound can be described by frequency (pitch) and amplitude (loudness). A low-frequency sound is perceived as low in pitch. Frequency is expressed in terms of cycles per second, or Hertz (Hz) (e.g., a frequency of 250 cycles per second is referred to as 250 Hz). High frequencies are sometimes more conveniently expressed in kilohertz (kHz), or thousands of Hertz. The audible frequency range for humans is generally between 20 Hz and 20,000 Hz.

##### ***Sound Pressure Levels and Decibels***

The amplitude of pressure waves generated by a sound source determines the loudness of that source. Sound pressure amplitude is measured in micro-Pascals (mPa). One mPa is approximately one hundred billionth (0.0000000001) of normal atmospheric pressure. Sound pressure amplitudes for different kinds of noise environments can range from less than 100 to 100,000,000 mPa. Because of this huge range of values, sound is rarely expressed in terms of mPa. Instead, a logarithmic scale is used to describe sound pressure level (SPL) in terms of decibels (dB). The threshold of hearing for young people is about 0 dB, which corresponds to 20 mPa.

##### ***Addition of Decibels***

Because decibels are logarithmic units, SPL cannot be added or subtracted through ordinary arithmetic. Under the decibel scale, a doubling of sound energy corresponds to a 3-dB increase. In other words, when two identical sources are each producing sound of the same loudness, the resulting sound level at a given distance would be 3

dB higher than one source under the same conditions. For example, if one automobile produces an SPL of 70 dB when it passes an observer, two cars passing simultaneously would not produce 140 dB—rather, they would combine to produce 73 dB. Under the decibel scale, three sources of equal loudness together produce a sound level 5 dB louder than one source.

### ***A-Weighted Decibels***

The decibel scale alone does not adequately characterize how humans perceive noise. The dominant frequencies of a sound have a substantial effect on the human response to that sound. Although the intensity (energy per unit area) of the sound is a purely physical quantity, the loudness or human response is determined by the characteristics of the human ear.

Human hearing is limited in the range of audible frequencies as well as in the way it perceives the SPL in that range. In general, people are most sensitive to the frequency range of 1,000–8,000 Hz, and perceive sounds within that range better than sounds of the same amplitude in higher or lower frequencies. To approximate the response of the human ear, sound levels of individual frequency bands are weighted, depending on the human sensitivity to those frequencies. Then, an “A-weighted” sound level (expressed in units of dBA) can be computed based on this information.

The A-weighting network approximates the frequency response of the average young ear when listening to most ordinary sounds. When people make judgments of the relative loudness or annoyance of a sound, their judgments correlate well with the A-scale sound levels of those sounds. Other weighting networks have been devised to address high noise levels or other special problems (e.g., B-, C-, and D-scales), but these scales are rarely used in conjunction with highway-traffic noise. Noise levels for traffic noise reports are typically reported in terms of A-weighted decibels or dBA. Table 3.11-1 describes typical A-weighted noise levels for various noise sources.

Table 3.11-1. Typical A-Weighted Noise Levels

Common Outdoor Activities	Noise Level (dBA)	Common Indoor Activities
	– 110 –	Rock band
Jet fly-over at 1000 feet		
	– 100 –	
Gas lawn mower at 3 feet		
	– 90 –	
Diesel truck at 50 feet at 50 mph		Food blender at 3 feet
	– 80 –	Garbage disposal at 3 feet
Noisy urban area, daytime		
Gas lawn mower, 100 feet	– 70 –	Vacuum cleaner at 10 feet
Commercial area		Normal speech at 3 feet
Heavy traffic at 300 feet	– 60 –	
		Large business office
Quiet urban daytime	– 50 –	Dishwasher next room
Quiet urban nighttime	– 40 –	Theater, large conference room (background)
Quiet suburban nighttime		
	– 30 –	Library
Quiet rural nighttime		Bedroom at night, concert hall (background)
	– 20 –	
		Broadcast/recording studio
	– 10 –	
Lowest threshold of human hearing	– 0 –	Lowest threshold of human hearing

Source: Caltrans 2013a.

#### **Human Response to Changes in Noise Levels**

As discussed above, doubling sound energy results in a 3-dB increase in sound. However, given a sound level change measured with precise instrumentation, the subjective human perception of a doubling of loudness will usually be different than what is measured.

Under controlled conditions in an acoustical laboratory, the trained, healthy human ear is able to discern 1-dB changes in sound levels, when exposed to steady, single-frequency (“pure-tone”) signals in the mid-frequency (1,000 Hz–8,000 Hz) range (Caltrans 2013a). In typical noisy environments, changes in noise of 1 to 2 dB are generally not perceptible. However, it is widely accepted that people are able to begin to detect sound level increases of 3 dB in typical noisy environments. Further, a 5-dB increase is generally perceived as a distinctly noticeable increase, and a 10-dB increase is generally perceived as a doubling of loudness. Therefore, a doubling of sound energy (e.g., doubling the volume of traffic on a highway) that would result in a 3-dB increase in sound, would generally be perceived as barely detectable.

### Noise Descriptors

Noise in our daily environment fluctuates over time at varying rates. Various noise descriptors have been developed to describe time-varying noise levels. The following are the noise descriptors are utilized in this analysis.

- **Equivalent Sound Level ( $L_{eq}$ ):**  $L_{eq}$  represents an average of the sound energy occurring over a specified period. The 1-hour A-weighted equivalent sound level ( $L_{eq}[h]$ ) is the energy average of A-weighted sound levels occurring during a one-hour period, and is the basis for noise abatement criteria (NAC) used by Caltrans and the Federal Highway Administration (FHWA).
- **Percentile-Exceeded Sound Level ( $L_{xx}$ ):**  $L_{xx}$  represents the sound level exceeded for a given percentage of a specified period (e.g.,  $L_{10}$  is the sound level exceeded 10% of the time, and  $L_{90}$  is the sound level exceeded 90% of the time).
- **Maximum Sound Level ( $L_{max}$ ):**  $L_{max}$  is the highest instantaneous sound level measured during a specified period.
- **Day-Night Level ( $L_{dn}$ ):**  $L_{dn}$  is the energy average of A-weighted sound levels occurring over a 24-hour period, with a 10-dB penalty applied to A-weighted sound levels occurring during nighttime hours between 10 p.m. and 7 a.m.
- **Community Noise Equivalent Level (CNEL):** Similar to  $L_{dn}$ , CNEL is the energy average of the A-weighted sound levels occurring over a 24-hour period, with a 10-dB penalty applied to A-weighted sound levels occurring during the nighttime hours between 10 p.m. and 7 a.m., and a 5-dB penalty applied to the A-weighted sound levels occurring during evening hours between 7 p.m. and 10 p.m.

### Sound Propagation

When sound propagates over a distance, it changes in level and frequency content. The manner in which noise reduces with distance depends on the following factors:

- **Geometric Spreading** – Sound from a localized source (i.e., a point source) propagates uniformly outward in a spherical pattern. The sound level attenuates (or decreases) at a rate of 6 decibels for each doubling of distance from a point source. Roadways consist of several localized noise sources on a defined path, and hence can be treated as a line source, which approximates the effect of several point sources. Noise from a line source propagates outward in a cylindrical pattern, often referred to as cylindrical spreading. Sound levels attenuate at a rate of 3 decibels for each doubling of distance from a line source.
- **Ground Absorption** – The propagation path of noise from a roadway to a receptor is usually very close to the ground. Noise attenuation from ground absorption and reflective-wave canceling adds to the attenuation associated with geometric spreading. Traditionally, the excess attenuation has also been expressed in terms of attenuation per doubling of distance. This approximation is usually sufficiently accurate for distances of less than 200 feet. For acoustically hard sites (i.e., sites with a reflective surface between the source and the receptor, such as a parking lot or body of water,), no excess ground attenuation is assumed. For acoustically absorptive or soft sites (i.e., those sites with an absorptive ground surface between the source and the receptor, such as soft dirt, grass, or scattered bushes and trees), an excess ground-attenuation value of 1.5 decibels per doubling of distance is normally assumed. When added to the cylindrical spreading, the excess ground attenuation results in an overall drop-off rate of 4.5 decibels per doubling of distance.
- **Atmospheric Effects** – Receptors located downwind from a source can be exposed to increased noise levels relative to calm conditions, whereas locations upwind can have lowered noise levels. Sound levels can be increased at large distances (e.g., more than 500 feet) from the roadway due to atmospheric temperature

inversion (i.e., increasing temperature with elevation). Other factors such as air temperature, humidity, and turbulence can also have significant effects.

- **Shielding by Natural or Human-Made Features** – A large object or barrier in the path between a noise source and a receptor can substantially attenuate noise levels at the receptor. The amount of attenuation provided by shielding depends on the size of the object and the frequency content of the noise source. Natural terrain features (e.g., hills and dense woods) and human-made features (e.g., buildings and walls) can substantially reduce noise levels. Walls are often constructed between a source and a receptor specifically to reduce noise. A barrier that breaks the line of sight between a source and a receptor will typically result in at least 5 dB of noise reduction. Taller barriers provide increased noise reduction. Vegetation between the highway and receptor is rarely effective in reducing noise because it does not create a solid barrier.

### ***Sensitive Receptors***

Noise- and vibration-sensitive land uses are locations where people reside or where the presence of unwanted sound could adversely affect the use of the land. Residences, schools, hospitals, guest lodging, libraries, and some passive recreation areas would be considered noise- and vibration-sensitive land uses (NSLU) and may warrant unique measures for protection from intruding noise and vibration.

#### 3.11.1.2 Vibration Characteristics

Vibration is oscillatory movement of mass (typically a solid) over time. It is described in terms of frequency and amplitude and, unlike sound, can be expressed as displacement, velocity, or acceleration. For environmental studies, vibration is often studied as a velocity that, akin to the discussion of sound pressure levels, can also be expressed in dB as a way to cast a large range of quantities into a more convenient scale. Vibration impacts to buildings are generally discussed in terms of inches per second (ips) peak particle velocity (PPV), which will be used herein to discuss vibration levels for ease of reading and comparison with relevant standards. Vibration can also be annoying and thereby impact occupants of structures, and vibration of sufficient amplitude can disrupt sensitive equipment and processes (Caltrans 2013b), such as those involving the use of electron microscopes and lithography equipment. Common sources of vibration within communities include construction activities and railroads. Groundborne vibration generated by construction projects is usually highest during pile driving, rock blasting, soil compacting, jack hammering, and demolition-related activities where sudden releases of subterranean energy or powerful impacts of tools on hard materials occur. Depending on their distances to a sensitive receptor, operation of large bulldozers, graders, loaded dump trucks, or other heavy construction equipment and vehicles on a construction site also have the potential to cause high vibration amplitudes. The maximum vibration level standard used by the California Department of Transportation (Caltrans) for the prevention of structural damage to typical residential buildings is 0.3 ips PPV (Caltrans 2013b). For human annoyance, Caltrans guidance indicates that a more stringent threshold of 0.2 ips PPV due to continuous vibration (e.g., nearby roadway traffic) would be “annoying”. Vibration velocity limits for transient or single events tend to be less stringent than those for continuous or “steady-state” vibration sources. For historic structures, Caltrans guidance suggests that 0.12 ips PPV should be the limit for continuous/intermittent vibration sources; and, concurrent with FTA guidance, the same limit should be applied as a transient vibration event limit for extremely fragile ruins and buildings (Caltrans 2013b, FTA 2018).

### 3.11.3 Existing Noise Measurements

Existing noise conditions present on the project site and in the vicinity of noise sensitive land uses in the region of the project were inventoried by Dudek on March 30, 2017. Short-term (1 hour or less) attended sound level measurements were taken with a Rion NL-52 Sound Level Meter. This instrument is categorized as Type 1, Precision Grade. Short-term sound levels were measured at six existing noise-sensitive receptors within or adjacent to the Specific Plan Area (SPA) or within the Potential Areas, as shown in Figure 3.11-1, Noise Measurement Locations.

Consistent with sound level measurement protocol expressed in Section 7.20.010 from the City of Riverside Municipal Code (RMC), the sound measuring instrument used for the survey was set to the “slow” time response and the dBA scale for all noise measurements. To ensure accuracy, the laboratory calibration of the instrument was field checked before and after each measurement period using an acoustical calibrator. The accuracy of the acoustical calibrator is maintained through a program established through the manufacturer and traceable to the National Institute of Standards and Technology. The sound measurement instrument meets the requirements of American National Standards Institute Standard (ANSI) S 1.4-1983 and International Electrotechnical Commission (IEC) Publications 804 and 651. In all cases, the microphone height was 5 feet above the ground and the microphone was equipped with a windscreen.

During the field measurements, physical observations of the predominant noise sources were noted. The major noise source in the project area was vehicle traffic. Other sources of noise within the specific plan area are due to the normal activities associated with a given land use. For example, within residential areas noise sources include dogs, landscaping activities, and parties. Commercial uses include car washes, fast food restaurants, and auto repair facilities. Sources of noise in industrial and manufacturing areas may include heavy machinery and truck loading/unloading. Residential uses located adjacent to commercial and industrial uses would be exposed to noise associated with these land uses. Other secondary noise sounds included rustling leaves, birds, distant aircraft overflights, and other community noises. The results of the sound level measurements are summarized in Table 3.11-2. As shown in Table 3.11-2, measured noise levels varied from 59 dBA  $L_{eq}$  at ST1 to 67 dBA  $L_{eq}$  at ST4 when rounded to whole numbers, as is customary for community noise measurements. These baseline noise measurements are considered to represent the current noise conditions considering the minimal amount of changes that have occurred in the area since 2017 and lack of significant changes in traffic conditions (Appendix H) that generate the majority of noise in the area (Table 3.11-2).

**Table 3.11-2. Short-Term Sound Level Measurement Results**

Site ID	Measurement Location	Time Period (hh:mm)	Perceived Sound Sources	CNEL* (dBA)	$L_{eq}$ (dBA)	$L_{max}$ (dBA)	$L_{min}$ (dBA)
M1	3141 Main St Riverside, CA 92501	11:15- 11:30	Traffic, Birds, Distant Traffic	59	58.7	72.6	47.1
M2	1101-1199 Orange St, Riverside, CA 92501	12:00- 12:15	Traffic, Birds, Distant Conversations / Yelling	67	67.0	79.3	48.6
M3	1942 Marlborough Ave Riverside, CA 92507	13:10- 13:25	Traffic, Birds, Distant Aircraft, Distant Traffic, Rustling Leaves	59	59.0	75.1	50.6
M4	3298 Kluk Ln Riverside, CA 92501 (Potential Area D)	12:46- 13:01	Traffic, Distant conversations, Distant traffic, Landscaper	66	65.7	73.5	59.9

Table 3.11-2. Short-Term Sound Level Measurement Results

Site ID	Measurement Location	Time Period (hh:mm)	Perceived Sound Sources	CNEL* (dBA)	Leq (dBA)	Lmax (dBA)	Lmin (dBA)
M5	3759 Placentia Ln Riverside, CA 92501	12:28- 12:43	Traffic, Birds, Rustling Leaves, Distant Traffic, Loading Truck	60	60.2	73.9	45.5
M6	3401 Vista Ave Riverside, CA 92501	11:35- 11:50	Traffic, Birds, Distant Conversation, Distant Dog Barking, Distant Traffic, Rustling Leaves	64	64.3	74.5	61.5

**Notes:** Leq = equivalent continuous sound level (time-averaged sound level); Lmax = maximum sound level during the measurement interval; Lmin = minimum sound level during the measurement interval; CNEL\* = community noise equivalent level, calculated from measured daytime Leq and estimates of evening Leq and nighttime Leq.

The measured sample daytime Leq values appearing in Table 3.11-2 can be used to approximate CNEL values near surface transportation routes on the basis of evening Leq values typically being 5 dB less than those of daytime levels, and nighttime Leq values being 10 dB less than daytime levels (FTA 2018). These differences would offset the CNEL “penalties” during the evening and nighttime time periods, resulting in daytime Leq and CNEL having the same decibel quantities.

### 3.11.2 Relevant Plans, Policies, and Ordinances

The Northside Specific Plan project area is located within the cities of Riverside and Colton and County of Riverside, California, as shown in Figure 2-2. Riverside and Colton each have regulations and standards pertaining to noise. Additionally, the federal government and the State of California have regulations and standards pertaining to noise. These are each summarized below.

#### Federal

##### *Federal Transit Administration and Federal Railroad Administration Standards*

Although the Federal Transit Administration (FTA) standards are intended for federally funded mass-transit projects, the impact assessment procedures and criteria included in the FTA Transit Noise and Vibration Impact Assessment Manual (May 2006) are routinely used for projects proposed by local jurisdictions. The FTA measure of the threshold of architectural damage for conventional sensitive structures is 0.2 inches/second peak-particle velocity (PPV).

#### State

##### *California Noise Control Act of 1973*

Sections 46000 through 46080 of the California Health and Safety Code, known as the California Noise Control Act of 1973, declares that excessive noise is a serious hazard to the public health and welfare and that exposure to certain levels of noise can result in physiological, psychological, and economic damage. It also identifies a continuous and increasing bombardment of noise in the urban, suburban, and rural areas. The California Noise Control Act declares that the State of California has a responsibility to protect the health and welfare of its citizens by the control, prevention, and abatement of noise. It is the policy of the state to provide an environment for all Californians free from noise that jeopardizes their health or welfare.

### ***California Noise Insulation Standards***

In 1974, the California Commission on Housing and Community Development adopted noise insulation standards for hotels, motels, dormitories, and multifamily residential buildings (Title 24, Part 2, CCR). Title 24 establishes standards for interior room noise (attributable to outside noise sources). The regulations also specify that acoustical studies must be prepared whenever a multifamily residential building or structure is proposed to be located near an existing or adopted freeway route, expressway, parkway, major street, thoroughfare, rail line, rapid transit line, or industrial noise source, and where such noise source(s) create an exterior CNEL (or  $L_{dn}$ ) of 60 dBA or greater. Such acoustical analysis must demonstrate that the residence has been designed to limit intruding noise to an interior CNEL (or  $L_{dn}$ ) of at least 45 dBA (California’s Title 24 Noise Standards, Chap. 2-35).

### ***California Green Building Standards***

The 2019 State of California’s Green Building Standards Code (CBSC 2019) contains mandatory measures for non-residential building construction. Section 5.507 (Environmental Comfort), addresses mandatory noise standards. The standards are applied to new construction in California for the purpose of controlling interior noise levels resulting from exterior noise sources. Section 5.507.4.1 specifies that when non-residential structures are developed in areas where the exterior noise levels exceed 65 dBA CNEL, such as within a noise contour of an airport, freeway, railroad, their wall and roof-ceiling assemblies shall meet a composite sound transmission class (STC) of at least 50, with minimum STC 40 windows. For areas where noise contours are not readily available, buildings exposed to noise of 65 dB hourly  $L_{eq}$  need to have wall and roof-ceiling assemblies of at least STC 45, with minimum STC 40 windows. Alternately, per a “performance” based method, interior sound levels resulting from exterior noise exposure must not exceed 50 dBA hourly  $L_{eq}$ .

## **Local**

### ***Riverside County***

#### **General Plan Noise Element**

Riverside County has adopted a General Plan Noise Element, which was revised in 2015, to provide policies and guidance on noise control and appropriate settings for new development (County of Riverside 2015). Table 3.11-3 presents the County’s land use compatibility guidelines that are comparable to those recommended by the State Planning Guidelines (OPR 2017).

**Table 3.11-3. Riverside County Land Use Compatibility for Community Noise Exposure**

Land Use Category	Community Noise Exposure Level (CNEL, dBA)						
	< 55	55-60	60-65	65-70	70-75	75-80	> 80
Residential (low density, single family, duplex ,mobile homes)	NA	NA, CA	CA	CA	NU	CU	CU
Residential (multi-family)	NA	NA	NA, CA	CA	NU	CU	CU
Transient lodging (motels, hotels)	NA	NA	NA, CA	CA	NU	NU	CU
Schools, libraries, hospitals, churches, nursing homes	NA	NA	NA, CA	NA, CA	NU	NU	CU
Auditoria, amphitheaters, concert halls	CA	CA	CA	CA, NU	NU	NU	NU
Sports arena, outdoor spectator sports	CA	CA	CA	CA	CA, NU	NU	NU

**Table 3.11-3. Riverside County Land Use Compatibility for Community Noise Exposure**

Land Use Category	Community Noise Exposure Level (CNEL, dBA)						
	< 55	55-60	60-65	65-70	70-75	75-80	> 80
Playgrounds, neighborhood parks	NA	NA	NA	NA, NU	NU, CU	CU	CU
Golf courses, water recreation, riding stables, cemeteries	NA	NA	NA	NA	NA, NU	NU	CU
Office buildings, business, commercial, professional	NA	NA	NA	NA, CA	CA	CA, CU	CU
Industrial, manufacturing, utilities, agriculture	NA	NA	NA	NA	NA, CA	CA, CU	CU

**Source:** Riverside County General Plan Noise Element, Table N-1 (County of Riverside 2015)

**Notes:** NA = normally acceptable, CA = conditionally acceptable; NU = normally unacceptable; CU = clearly unacceptable

Normally Acceptable: Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction, without any special noise insulation requirements.

Conditionally Acceptable: New construction or development should be undertaken only after a detailed analysis of the noise reduction requirement is made and needed noise insulation features included in the design. Conventional construction, but with closed windows and fresh air supply systems or air conditioning will normally suffice. Outdoor environment will seem noisy.

Normally Unacceptable: New construction or development should generally be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise insulation features included in the design. Outdoor areas must be shielded.

Clearly Unacceptable: New construction or development should generally not be undertaken. Construction costs to make the indoor environment acceptable would be prohibitive and the outdoor environment would not be usable.

Policy N 2.3 in the Noise Element aims to “mitigate” exterior and interior noise levels with suggested 10-minute  $L_{eq}$  thresholds for stationary sources at residential land uses as follows: interior – 55 dBA (7 AM to 10 PM), 40 dBA (10 PM to 7 AM); and exterior – 65 dBA (7 AM to 10 PM), 45 dBA (10 PM to 7 AM).

Noise Element Policy N 14.9 creates an expectation of an exterior noise limit of 65 dBA CNEL for “600 square feet of exterior space” for new development on residential parcels that are larger than an acre.

Although the County noise ordinance (summarized in the following paragraphs) conditionally exempts construction noise from exterior noise standards, Policies N 13.1 through N 13.4 demonstrate that appropriate noise control of construction activity is expected.

### **Noise Ordinance**

Ordinance 847 regulates noise for Riverside County and includes in its Section 4 a set of maximum sound level ( $L_{max}$ ) standards summarized in Table 3.11-4 that vary with general plan land use designations.

**Table 3.11-4. County of Riverside Exterior Noise Standards**

General Plan Land Use Designations	Daytime (7 AM to 10 PM) Limit (dBA, $L_{max}$ )	Nighttime (10 PM to 7 AM) Limit (dBA, $L_{max}$ )
Residential (EDR, VLDR, LDR, MDR, MHDR, HDR, VHDR, H'TDR); Specific Plan – Residential	55	45
Commercial (CR, CO, CT, CC); Specific Plan – Commercial	65	55
Open Space (MR)	75	45
Light Industrial (LI); Specific Plan – LI	75	55

Table 3.11-4. County of Riverside Exterior Noise Standards

General Plan Land Use Designations	Daytime (7 AM to 10 PM) Limit (dBA, L <sub>max</sub> )	Nighttime (10 PM to 7 AM) Limit (dBA, L <sub>max</sub> )
Heavy Industrial (HI); Specific Plan - HI	75	75
Business Park (BP); Public Facility (PF)	65	45
Rural (RR, RM, RD); Agricultural (AG); Open Space (C, CH, REC, RUR, W)	45	45

**Source:** Riverside County Ordinance 847, Table 1, County of Riverside 007.

Pertinent to the Project, Section 2 of Ordinance 847 allows the following exemptions from its provisions (including the standards appearing in Table 3.11-4):

- Private construction projects located one-quarter (1/4) of a mile or more from an inhabited dwelling.
- Private construction projects located within one-quarter (1/4) of a mile from an inhabited dwelling, provided that:
  1. Construction does not occur between the hours of 6:00 p.m. and 6:00 a.m. during the months of June through September; and
  2. Construction does not occur between the hours of 6:00 p.m. and 7:00 a.m. during the months of October through May.
- Heating and air conditioning equipment.

### City of Riverside

#### *City of Riverside General Plan 2025*

The City of Riverside has adopted a General Plan Noise Element to control and abate environmental noise, and to protect the citizens of the City from excessive exposure to noise. The Noise Element specifies the maximum allowable unmitigated exterior noise levels for new developments impacted by transportation noise sources such as arterial roads, freeways, airports, and railroads. In addition, the Noise Element identifies several policies to minimize the impacts of excessive noise levels throughout the community (City of Riverside 2018).

**Objective N-1** Minimize noise levels from point sources throughout the community and, whenever possible, mitigate the effects of noise to provide a safe and healthful environment

**Policy N-1.1** Continue to enforce noise abatement and control measures particularly within residential neighborhoods.

**Policy N-1.2** Require the inclusion of noise-reducing design features in development consistent with standards in Figure N-10 (Noise/Land Use Compatibility Criteria), Title 24 California Code of Regulations and Title 7 of the Municipal Code.

**Policy N-1.3** Enforce the City of Riverside Noise Control Code to ensure that stationary noise and noise emanating from construction activities, private developments/residences and special events are minimized.

- Policy N-1.4** Incorporate noise considerations into the site plan review process, particularly with regard to parking and loading areas, ingress/egress points and refuse collection areas.
- Policy N-1.5** Avoid locating noise-sensitive land uses in existing and anticipated noise-impacted areas.
- Policy N-1.8** Continue to consider noise concerns in evaluating all proposed development decisions and roadway projects.
- Policy N-4.1** Ensure that noise impacts generated by vehicular sources are minimized through the use of noise reduction features (e.g., earthen berms, landscaped walls, lowered streets, improved technology).

The Noise Element establishes compatibility standards for land uses in the City, as outlined in Figure 3.11-2, City of Riverside Noise/Land Use Compatibility Criteria. As shown in Table 3.11-5, under Policy N-1.2, the Noise Element sets normally acceptable, conditionally acceptable, and generally unacceptable ambient noise levels for proposed developments based on land use.

**Table 3.11-5. City of Riverside Land Use Compatibility for Community Noise Exposure**

Community Noise Equivalent Level (CNEL) or Day-Night Level (L <sub>dn</sub> ), dBA				
Land Use Category	Normally Acceptable	Conditionally Acceptable	Normally Unacceptable	Conditionally Unacceptable
Single Family Residential	<60	60-65	65-70	>70
Infill Residential	<65	65-75	75-80	>80
Commercial (Motels, Hotels, Lodging)	<60	60-70	70-80	>80
Schools, Libraries, Churches, Hospitals, Nursing Homes	<60	60-70	70-80	>80
Amphitheaters, Concert Hall, Auditorium, Meeting Hall	N/A	<65	N/A	>65
Sports Arenas, Outdoor Spectator Sports	N/A	<70	N/A	>70
Playgrounds, Neighborhood Parks	<70	N/A	70-75	>75
Golf Courses, Riding Stables, Water Rec, Cemeteries	<70	N/A	70-80	>80
Office Buildings, Business, Commercial, Professional	<65	65-75	>75	N/A
Industrial, Manufacturing, Utilities, Agriculture	<70	70-80	>80	N/A
Freeway Adjacent Commercial, Office, and Industrial Uses	<65	65-80	>80	N/A

**Normally Acceptable:** Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction, without any special noise insulation requirements.

**Conditionally Acceptable:** New construction or development should be undertaken only after a detailed analysis of the noise reduction requirement is made and needed noise insulation features included in the design. Conventional construction, but with closed windows and fresh air supply systems or air conditioning will normally suffice.

**Normally Unacceptable:** New construction or development should generally be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise insulation features included in the design.

**Conditionally Unacceptable:** New construction or development should generally not be undertaken, unless it can be demonstrated that noise reduction requirements can be employed to reduce noise impacts to an acceptable level. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise insulation features included in the design.

**Source:** City of Riverside 2018, Figure N-10.

It should be noted that the City’s land use compatibility guidelines, including the four acceptability categories, presented in Table 3.11-5 are not identical to those of the County appearing in Table 3.11-3. For instance, while the City has a “conditionally unacceptable” category that allows development with sufficient noise insulation features in its design, the County’s fourth category is “clearly unacceptable” and suggests that such noise insulation features would be cost-prohibitive for a development project to be designed and implemented in the noisiest of outdoor environments.

### ***Municipal Code***

The RMC sets forth the City’s standards, guidelines, and procedures concerning the regulation of operational noise. Specifically, noise levels in the City are regulated by RMC Title 7, Noise Control. These regulations are intended to implement the goals, objectives, and policies of the General Plan, protect the public health, safety, and welfare of the City, and to control unnecessary, excessive, and/or annoying noise in the City.

### ***Interior Noise***

RMC Section 7.30.015 establishes interior sound level limits for various land use categories. Noise from interior operations at one land use cannot exceed the interior noise standards from the receiving land use, as measured at the property line. Table 3.11-6 provides interior noise standards for various land use categories. These standards apply to noise levels in structures in designated zones, with windows opened or closed as typical of the season.

**Table 3.11-6. City of Riverside Interior Noise Standards**

Land Use Category	Time	Acceptable Noise Level (dBA)
Residential	Day (7 AM to 10 PM)	45
	Night (10 PM to 7 AM)	35
School	7 AM to 10 PM (while school is in session)	45
Hospital	Anytime	45

**Source:** RMC Title 7

RMC Section 7.30.015(A) states no person shall operate or cause to be operated any source of sound indoors that causes the noise level when measured inside another dwelling unit, school or hospital, to exceed:

1. Interior noise standard up to five decibels for a cumulative period of more than five minutes in any hour
2. Interior noise standard plus five decibels for a cumulative period of more than one minute in any hour
3. Interior noise standard plus 10 decibels, or the maximum measured ambient noise level, for any period of time

If the measured ambient noise level exceeds that permissible within the first two noise limit categories, the allowable noise exposure standard shall be increased in 5-dB increments in each category, as appropriate, to reflect the interior ambient noise level. If the interior ambient noise level exceeds the third limit category, the maximum allowable interior noise level under that category shall be increased to reflect the maximum interior ambient noise level.

### **Exterior Noise**

RMC Section 7.25.010 establishes exterior noise standards for various land use categories, as shown below in Table 3.11-7. Noise from any land use cannot exceed the receiving land use exterior noise standards, as measured at the property line. The noise level limit between two different districts is the arithmetical mean of the two districts.

**Table 3.11-7. City of Riverside Exterior Noise Standards**

Land Use Category	Time	Acceptable Noise Level (dBA)
Residential	Day (7 AM to 10 PM)	55
	Night (10 PM to 7 AM)	45
Office/Commercial	Anytime	65
Industrial	Anytime	70
Community Support	Anytime	60
Public Recreation Facility	Anytime	65
Non-Urban	Anytime	70

**Source:** RMC Title 7

In addition, RMC Section 7.25.010(A) indicates that it is unlawful for any person to cause or allow the creation of any noise that exceeds the following levels.

1. Exterior noise standard, up to 5 decibels, for a cumulative period of more than 30 minutes in any hour
2. Exterior noise standard, plus 5 decibels for a cumulative period of more than 15 minutes in any hour
3. Exterior noise standard, plus 10 decibels for a cumulative period of more than 5 minutes in any hour
4. Exterior noise standard, plus 15 decibels for a cumulative period of more than 1 minute in any hour
5. Exterior noise standard, plus 20 decibels or the maximum measured ambient noise level, for any period

If the measured ambient noise level exceeds that permissible within any of the first four noise limits above (i.e., 1-4), the allowable noise exposure standard shall be increased in 5-dB increments in each cumulative time period category, as appropriate, to encompass the ambient noise level. By way of example, if the ambient measured level was 57 dBA for over a cumulative 30-minute period in a residential area during the day, the exterior daytime standard would become 60 dBA, and the limits for the five-listed partial-hour periods would increase by 5 dBA to become 60, 65, 70, 75, and 80 dBA respectively. In the event the ambient noise level exceeds the fifth noise limit category (#5, which allows the standard shown in Table 3.11-7 plus 20 dB), the maximum allowable noise level under that category shall be increased to reflect the maximum ambient noise level.

Pursuant to RMC Section 7.35.020(G), noise sources associated with permitted construction, repair, remodeling, or grading of any real property are exempt from the interior and exterior noise standards presented above. Construction activity cannot occur between 7:00 PM and 7:00 AM on weekdays, between 5:00 PM and 8:00 AM on Saturdays, or at any time on Sunday or a federal holiday.

## City of Colton

### *General Plan Noise Element*

The City of Colton’s General Plan Noise Element (City of Colton 1987) specifies exterior and interior noise standards for various land uses from transportation noise sources. The Noise Element states that residential structures should be constructed so as to maintain interior noise levels of 45 dBA or less, and that residential growth in areas where noise exposure levels are 70 dBA or more should be discouraged, unless on-site noise levels can be reduced to 60 dBA or less through noise reduction measures.

The stated exterior noise standard for commercial land uses is 65 dBA during daytime hours or 55 dBA during nighttime hours. Areas of “public need, and where the preservation of serenity and quietness is essential if the area is to continue to serve its intended purpose” has a noise standard of 60 dBA.

The City’s Land Use Compatibility Criteria table (Table 5-1 in the Noise Element), as shown in Figure 3.11-3, City of Colton Noise/Land Use Compatibility Criteria, is consistent with the State of California’s suggested guidelines. Single-family residential land uses are considered normally acceptable with unmitigated exterior noise levels below 60 dBA CNEL and conditionally acceptable with noise levels below 70 dBA CNEL. Multi-family residential land uses are considered normally acceptable with unmitigated exterior noise levels below 65 dBA CNEL and conditionally acceptable with noise levels below 70 dBA CNEL. For conditionally acceptable land use, new construction or development should be undertaken only after a detailed analysis of noise reduction requirements is made and needed noise insulation features are included in the design. Conventional construction, but with closed windows and fresh air supply systems or air conditioning, will normally suffice.

### *Municipal Code*

Noise-generating sources in Colton are regulated by the City’s Municipal Code Noise Ordinance, primarily through its zoning code, Chapter 18 (City of Colton 1992). Section 18.42.040, Noise, of Chapter 18.42, Performance Standards, states: “The maximum sound level radiated by any Use of Facility, when measured at the boundary line of the Property on which the sound is generated, shall not be obnoxious by reason of its intensity, pitch or dynamic characteristics as determined by the City, and Shall not exceed 65 dBA.” Section 18.42.050, Vibration, states: “All activities shall be operated so as not to generate ground vibration by equipment other than motor vehicles, trains or by temporary construction or demolition, which is perceptible without instruments by the average person at or beyond any lot line of the lot containing the activities.”

## 3.11.3 Thresholds of Significance

The significance criteria used to evaluate the project impacts related to noise are based on Appendix G of the California Environmental Quality Act (CEQA) Guidelines. According to Appendix G of the CEQA Guidelines, a significant impact related to noise would occur if the project would:

1. Result in generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.
2. Result in generation of excessive groundborne vibration or groundborne noise levels.
3. For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, expose people residing or working in the project area to excessive noise levels.

While the cities of Riverside and Colton, as well as Riverside County, provide direction on applicable quantified noise limits against which predicted project-attributed noise levels can be compared for potential noise impact assessment, they currently offer no guidance on what would be considered permissible decibel increases of the existing outdoor ambient sound environment. Thus, this analysis adopts guidance from the Federal Interagency Committee on Noise (FICON) to be applied at noise-sensitive receptors (e.g., residential land uses):

- If the without-project outdoor ambient noise level is less than 60 dBA CNEL, then a project-attributed increase of that outdoor ambient sound level by 5 dBA or more would be considered a significant impact;
- If the without-project outdoor ambient noise level is between 60 and 65 dBA CNEL, then a project-attributed increase of that outdoor ambient sound level by 3 dBA or more would be considered a significant impact; and,
- Where the without-project outdoor ambient noise level is greater than 65 dBA CNEL, then a project-attributed increase of that outdoor ambient sound level by 1.5 dBA or more would be considered a significant impact.

Although these FICON recommendations were originally developed for assessing annoyance related to aircraft noise, they are often used to assess environmental noise when the metrics (such as CNEL) are energy-averaged over an entire day-night cycle. For purposes of this analysis, the above three conditions will be applied to off-site roadway noise and stationary operation (e.g., HVAC) noise impact assessment.

In similar manner, Standard 3 from the City of Colton General Plan Noise Element sets 65 dBA and 55 dBA  $L_{eq}$  as exterior noise levels for commercial land uses during daytime hours and nighttime hours, respectively. Combined, these limits can be expressed as a 65 dBA CNEL metric over the course of a 24-hour period (i.e., because 10 dB are added to the 55 dBA  $L_{eq}$  nighttime levels). To determine if project-related traffic noise level increases are potentially significant at off-site commercial (or others not considered noise-sensitive, such as residences) land uses within the City of Colton, this assessment applies the following two increase-over-ambient thresholds:

- If without-Project exterior noise level is less than the 65 dBA CNEL standard at commercial land uses, a 5 dBA increase would be readily perceptible and considered significant; and,
- If without-Project exterior noise level is greater than 65 dBA CNEL, a 3 dBA increase would be considered significant.

For the City of Riverside, the exterior noise threshold is 65 dBA “anytime” for commercial land uses, which means the associated CNEL would approach 72 dBA (due to evening hour and nighttime hour  $L_{eq}$  adjustments). Thus, to determine if project-related traffic noise level increases are potentially significant at off-site commercial (or others not considered noise-sensitive, such as residences) land uses within the City of Riverside, this assessment applies the following two increase-over-ambient thresholds:

- If without-Project exterior noise level is less than the 72 dBA CNEL standard at commercial land uses, a 5 dBA increase would be readily perceptible and considered significant; and,
- If without-Project exterior noise level is greater than 72 dBA CNEL, a 3 dBA increase would be considered significant.

With respect to construction noise on land within Riverside County, Ordinance 847 exempts it from exterior noise thresholds (under specific conditions, such as distance to a sensitive receptor) while the Noise Element policies (N 13) expects it to be minimized—but without quantified thresholds. The cities of Colton and Riverside similarly lack an applicable quantified noise standard for construction noise.

For the Roquet Ranch Specific Plan, which easterly adjoins the Project area within the City of Colton, the noise assessment of its EIR adopted a construction noise level threshold of 85 dBA  $L_{eq}$  for an eight-hour per day, comparable to what the National Institute for Occupational Safety and Health (NIOSH, a division of the U.S. Department of Health and Human Services) recommends as an occupational noise exposure level. This 85 dBA limit for construction noise is also comparable to Federal Transit Administration (FTA) guidance for daytime construction noise exposure: 80 dBA 8-hour  $L_{eq}$  and 85 dBA 8-hour  $L_{eq}$  for residential and commercial receptors, respectively. Thus, for the City of Colton, these two quantities are adopted herein for assessing construction noise impact significance.

Based on these above conditions per current CEQA guidelines, Table 3.11-8 presents the list of applicable significance criteria for evaluating construction noise, construction vibration, and operation noise significant impacts attributed to implementation of the Northside Specific Plan.

**Table 3.11-8. Summarized Noise Impact Significance Criteria**

Analysis Category	Land Use	Jurisdiction or Condition(s)	Significance Criteria	
			Daytime	Nighttime
Off-site Traffic Noise	Noise-sensitive (Residential)	ambient < 60 dBA CNEL	> 5 dBA CNEL increase	
		ambient = 60-65 dBA CNEL	> 3 dBA CNEL increase	
		ambient > 65 dBA CNEL	> 1.5 dBA CNEL increase	
	Commercial (and other non-noise-sensitive)	City of Colton, ambient < 65 dBA CNEL	> 5 dBA CNEL increase	
		City of Colton, ambient > 65 dBA CNEL	> 3 dBA CNEL increase	
		City of Riverside, ambient < 72 dBA CNEL	> 5 dBA CNEL increase	
		City of Riverside, ambient > 72 dBA CNEL	> 3 dBA CNEL increase	
	Stationary Operations Noise	Noise-sensitive (Residential)	City of Colton	65 dBA $L_{eq}$
City of Riverside			55 dBA $L_{eq}$	45 dBA $L_{eq}$
Riverside County			65 dBA $L_{eq}$	45 dBA $L_{eq}$
Construction Noise	Noise-sensitive (Residential)	FTA guidance*	80 dBA 8-hour $L_{eq}$	n/a ***
	Commercial	FTA guidance*	85 dBA 8-hour $L_{eq}$	n/a ***

Table 3.11-8. Summarized Noise Impact Significance Criteria

Analysis Category	Land Use	Jurisdiction or Condition(s)	Significance Criteria	
			Daytime	Nighttime
Construction Vibration	Residential	FTA guidance**	0.2 ips PPV	n/a ***
		City of Colton	“perceptible” (65 VdB)	n/a ***
	Historic Structures	Caltrans and FTA guidance	0.12 ips PPV	n/a ***

**Notes:** \*For purposes of this Project noise assessment, adopted to assess construction noise impact for receiving land uses only within the City of Colton. \*\*For purposes of this Project noise assessment, applies only to City of Riverside and County of Riverside. \*\*\*Nighttime construction prohibited, see jurisdiction for definition of prohibited time period.

With respect to roadway traffic noise exposures within the SPA and as a result of future development within the Northside Specific Plan, the land use compatibility guidelines as shown in Table 3.11-3 for Riverside County, Table 3.11-5 for the City of Riverside, and Figure 3 for the City of Colton provide the thresholds of “acceptability” and under what conditions project-specific analysis and/or noise mitigation measures would be required.

Although the nearest airport to the SPA is Flabob Airport, approximately 10,000 feet to the southwest, Figure N-8 from the City of Riverside General Plan suggests that the noise exposure from its aviation operations would be much less than 55 dBA CNEL at the closest opportunity of exposure. Riverside Municipal Airport is an additional 2 miles distant to the southwest of the nearest Specific Plan boundary. Hence, residents and workers within the SPA would not be exposed to a significantly impactful noise level, and no further analysis with respect to CEQA guideline “c” is necessary herein for airport-associated noise impacts.

### 3.11.4 Impacts Analysis

***Would the project result in generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?***

#### Construction Noise Impacts

**Less-than-Significant Impact with Mitigation Incorporated.** Temporary or periodic noise increases could result from conduct of construction projects within the SPA. Noise associated with the demolition, site preparation, and building construction for projects approved under the Northside Specific Plan would result in potential short-term noise impacts to noise-sensitive receptors that include the following: 1) existing off-site residential communities, schools, and hospitals that adjoin the Specific Plan boundary; 2) pre-existing residences, schools, and hospitals within SPA; and, 3) newly-created residences, schools, and hospitals associated with development projects implemented under the Northside Specific Plan. A variety of noise-generating equipment would be used during the construction phase, such as excavators, scrapers, dump trucks, backhoes, front-end loaders, jackhammers, and concrete mixers, along with others.

Table 3.11-9 presents a variety of heavy equipment typically involved in construction projects. These examples of common construction equipment can individually generate noise levels that range between 70 and 95 dB(A)  $L_{max}$  at 50 feet from the source.

**Table 3.11-9. Measured Noise Levels of Common Construction Equipment**

Equipment Type	L <sub>max</sub> at 50 feet (dBA)	Acoustical Usage Factor (%)
All other equipment (> 5HP)	85	20
Backhoe	78	40
Compressor (air)	80	40
Concrete pump truck	81	20
Concrete Saw	90	20
Crane (mobile or stationary)	81	16
Dozer	82	40
Dump Truck	84	40
Excavator	81	40
Front End Loader	79	40
Generator (25 KVA or less)	70	50
Grader	85	40
Impact Pile Driver (diesel or drop)	95	20
Mounted Impact Hammer (hoe ram)	90	20
Paver	85	50
Roller	80	20
Welder / Torch	73	40
Scraper	84	40

Source: FHWA 2006.

Although precise locations of projects and activities involving construction approved under the Northside Specific Plan are not known at this time, Table 3.11-10 presents a typical six-phase roster of construction equipment, based on CalEEMod default parameters, that this analysis assumes represents an anticipated average construction project. For Project land uses within the City of Colton, the right-most column in Table 3.11-10 indicates the activity-to-source distance within which aggregate construction phase noise emission would exceed the FTA-based 80 dBA and 85 dBA 8-hour L<sub>eq</sub> thresholds for residential and commercial receptors, respectively.

**Table 3.11-10. Screening Distances (per Typical Construction Phase) to Avoid Significant Construction Noise Impact**

Typical Construction Phase and Equipment Roster	Minimum Source-to-Receptor* Distance (feet) to Yield 80 dBA 8-hour L <sub>eq</sub>	Minimum Source-to-Receptor** Distance (feet) to Yield 85 dBA 8-hour L <sub>eq</sub>
Demolition (concrete saw, excavator [x3], dozer [x2])	110	65
Site Preparation (dozer [x3], backhoe [x2], front-end loader [x2])	90	50
Grading (excavator [x2], grader, dozer, front-end loader, scraper [x2])	120	70
Building Construction (crane, man lift [x3], generator, backhoe, front-end loader [x2], welder/torch)	60	35
Architectural Coating (air compressor)	25	15
Paving (paver [x2], roller [x2], all other equipment > 5 horsepower [x2])	105	60

Notes: \*residential; \*\*commercial.

Using a technique comparable to the Federal Highway Administration (FHWA) Roadway Construction Noise Model (RCNM), the distance values appearing in Table 3.11-10 are based on iteratively predicting construction noise emission from the aggregate of listed phase equipment, with equipment sharing a common source location (i.e., geographic center of a construction site) and featuring reference sound levels and duty cycles as appearing in Table 3.11-9. Therefore, noise from construction activities comparable to those featured in Table 3.11-10 and related to implementation of the Northside Specific Plan would potentially be significant when they are sufficiently proximate to City of Colton on-site and off-site receptors (**Impact NOI-1**).

### ***Roadway Traffic Noise***

#### **Estimation Methodology**

Potential noise effects from vehicular traffic were assessed using the FHWA Traffic Noise Model (TNM) version 2.5 (FHWA 2004) as well as FHWA Traffic Noise Model algorithms to calculate distances to noise contours for each of twenty-four (24) roadway segments within the SPA. The FHWA model takes into account traffic mix, speed, and volume; roadway gradient; relative distances between sources, barriers, and sensitive receptors; and shielding provided by intervening terrain or structures for the following eight cases:

- I. Existing (year 2019);
- II. Existing plus project (Scenario 1);
- III. Existing plus project (Scenario 2);
- IV. Horizon (year 2040) without project;
- V. Horizon (year 2040) (Scenario 1 without Orange Street extension);
- VI. Horizon (year 2040) (Scenario 1 with Orange Street extension);
- VII. Horizon (year 2040) (Scenario 2 without Orange Street extension); and,
- VIII. Horizon (year 2040) (Scenario 2 with Orange Street extension).

The analysis of the traffic noise environment conservatively assumed that the topography was flat with no intervening terrain between sensitive land uses and roadways. Because there are no obstructions, predicted noise levels are likely higher than would actually occur. In actuality, the presence of buildings and other obstructions, including natural terrain features, along the roadways would shield distant receivers from some portion of the traffic noise exposure. A large portion of the project area is undeveloped with soft ground conditions, and accounting for such on-site conditions applies a noise reduction factor in the TNM-based calculations.

Average daily traffic (ADT) volumes for the studied roadways are from Appendix H.

Table 3.11-11 provides a guide for finding the nearest studied roadway segment with respect to a potential new development to be located within one of the Northside Specific Plan land use subareas appearing on Figure 2-6.

Tables 3.11-12 through 3.11-19 present the estimated distances to the 55, 60, 65, 70, and 75 dBA CNEL noise contours for studied major roadways in each of the eight previously listed scenarios. Distances to the noise contours assume a soft, flat site with no intervening barriers or obstructions.

### On-site Traffic Noise Impacts

**Potentially Significant Impact.** When new development within the Northside Specific Plan is proposed for a particular site, Tables 3.11-12 through 3.11-19 provide distances at which the proximate roadway segment is expected to exhibit the indicated traffic-attributed CNEL value. These distances vary with the studied eight cases and reflect the different anticipated average daily traffic (ADT) volumes on the roadways.

Because the updated CEQA guidelines do not require an assessment of environmental noise onto a project, the predicted values presented in Tables 3.11-12 through 3.11-19 are disclosed for informational purposes. For example, if a developer wanted to propose an infill residential project near Main Street along the segment between Poplar Street and Spruce Street, and Table 3.11-16 represented the current status of the Northside Specific Plan, the minimum distance between the proposed infill residential project and the roadway would need to be 54 feet in order to be considered “normally acceptable” per the City of Riverside land use compatibility guidelines summarized in Table 3.11-5. If it were located within this distance, and thus potential expose the new receptors to exterior noise levels in excess of 65 dBA CNEL, then a site-specific acoustical analysis would need to be prepared for the project.

While specific information on future development sites and their locations within the Northside Specific Plan are unknown at this time, existing requirements within each jurisdiction require site-specific noise analysis to be completed prior to issuance of permits (**CM-NOI-1**, **CM-NOI-2**, and **CM-NOI-3**). The on-site traffic noise information (as presented in Tables 3.11-12 through 3.11-19 herein) identifies expected outdoor noise exposure levels, which can be utilized for future site planning within the SPA. The future projects are expected to comply with the corresponding land use compatibility requirements. As needed, future projects would be required to demonstrate compatibility with respect to the appropriate jurisdictional guidance and policies, which may include project-specific acoustical analyses that evaluate the effects of adequate building sound insulation and other noise-reducing measures. In some cases, such predictive analyses of proposed development may conclude that noise and vibration impacts may be significant, infeasible and/or unreasonable to mitigate, and therefore unavoidable. An example might be a mixed-use development that, if built, would potentially expose new residential outdoor living areas to such elevated exterior noise levels that typical means of feasible noise reduction (e.g., noise walls) would either not be sufficiently effective or not economically viable for the proposed project to implement. For this reason, on-site traffic noise impacts for the Northside Specific Plan are anticipated to be potentially significant and unavoidable (**Impact NOI-2**), even though the majority of site-specific projects would likely demonstrate application of appropriate project-specific design features.

**Table 3.11-11. Nearest Studied Roadway Segments by Northside Specific Plan Subarea**

Northside Specific Plan Subarea (from Figure 2-6)	Northside Specific Plan Land Use/ Subarea Name	Proximity of Northside Specific Plan Subarea to Adjoining Studied Roadway Segment
1*	Light Industrial (M-1)	North of Pellisier Road, S. Riverside Avenue to Roquet Ranch West of Orange Street, Pellisier Road to Center Street
2**	General Commercial (C-2)	East of S. Riverside Avenue, Pellisier Road to Center Street West S. Riverside Avenue, Pellisier Road to Center Street Northern section of Main Street, Center Street to Garner Road Center Street, Main Street to Orange Street

Table 3.11-11. Nearest Studied Roadway Segments by Northside Specific Plan Subarea

Northside Specific Plan Subarea (from Figure 2-6)	Northside Specific Plan Land Use/ Subarea Name	Proximity of Northside Specific Plan Subarea to Adjoining Studied Roadway Segment
3*	HDR-High Density Residential	East of Main Street, Center Street to Garner Road
4*	MHDR-Medium High Density Residential	South of Center Street, Main Street to Orange Street Orange Street, Center Street to Garner Road
5*	HDR-High Density Residential	East of Main Street, Garner Road to Columbia Avenue
6*	HDR-High Density Residential	East of Main Street, Garner Road to Columbia Avenue South of Garner Road, Main Street to Orange Street
7	MDR-Medium Density Residential	North of Garner Road, Main Street to Orange Street Orange Street, Center Street to Garner Road
8	Open Space, Parks, & Trails	Garner Road, Main Street to Orange Street West of Orange Street, Garner Road to Columbia Avenue
9	Northside Village Center	North of Columbia Avenue (Main Street to Orange Street) Southwestern segment of Orange Street, Garner Road to Columbia Avenue Southeastern segment of Main Street, Garner Road to Columbia Avenue
10	Freeway Mixed-Use	West of West La Cadena Drive, Chase Road to I-215 SB Ramps
11	Mixed-Use Neighborhoods	East of Orange Street, Strong Street to Oakley Avenue South of Strong Street, Orange Street to W La Cadena Drive Main Street, SR-60 EB to Spruce Street
12	MDR- Medium Density Residential	West of Main Street, Garner Road to Columbia Avenue Main Street, Columbia Avenue to Strong Street West of Main Street, Strong Street to Oakley Avenue West of Main Street, SR-60 EB to Spruce Street Strong Street, Main Street to Orange Street Strong Street, Orange Street to W La Cadena Drive Columbia Avenue, Main Street to Orange Street South of Columbia Avenue, Orange Street to Primer Street South of Columbia Street, Primer Street to E La Cadena Drive Center Street, Orange Street to Stephens Avenue North of Center Street, Stephens Avenue to Highgrove Place East of Orange Street, Center Street to Garner Road East of Orange Street, Garner Road to Columbia Avenue
13	MHDR-Medium High Density Residential	East of Orange Street, Garner Road to Columbia Avenue North of Columbia Avenue, Orange Street to Primer Street West of Main Street, Columbia Avenue to Strong Street
14	Public Facilities	East of Main Street, Strong Street to Oakley Avenue
15	Business Office Park	West of Main Street, Center Street to Garner Road West of Main Street, Garner Road to Columbia Avenue North of Market Street, Rivera Street to SR-60 WB Ramps
16	Spanish Town Heritage Village	Western segment of Center Street, Orange Street to Stephens Avenue
17	Commercial	Northern Segment of Main Street, Strong Street to Oakley Avenue

Notes: \*Transition Zone Overlay; \*\*Colton Residential Overlay (R-O) zone.

Table 3.11-12. Predicted Traffic Noise Contour Distances – Case I: Existing

Studied Roadway Segment	Estimated Traffic Noise Contour Distance with Respect to Roadway Centerline (feet)				
	55 dBA CNEL	60 dBA CNEL	65 dBA CNEL	70 dBA CENL	75 dBA CNEL
<i>Case I: Existing</i>					
S. Riverside Avenue, Pellisier Road to Center Street	1,858	587	186	59	19
Main Street, Center Street to Garner Road	1,256	397	126	40	13
Main Street, Garner Road to Columbia Avenue	1,991	629	199	63	20
Main Street, Columbia Avenue to Strong Street	1,377	435	138	44	14
Main Street, Strong Street to Oakley Avenue	1,858	587	186	59	19
Main Street, SR-60 EB to Spruce Street	706	223	71	22	7
Main Street, Spruce Street to Poplar Street	397	126	40	13	4
Orange Street, Pellisier Road to Center Street	N/A	N/A	N/A	N/A	N/A
Orange Street, Center Street to Garner Road	129	41	13	4	1
Orange Street, Garner Road to Columbia Avenue	0	0	0	0	0
Orange Street, Columbia Avenue to Strong Street	315	100	32	10	3
Orange Street, Strong Street to Oakley Avenue	173	55	17	5	2
West La Cadena Drive, Chase Road to I-215 SB Ramps	489	155	49	15	5
Pellisier Road, S. Riverside Avenue to Roquet Ranch	N/A	N/A	N/A	N/A	N/A
Center Street, Main Street to Orange Street	138	44	14	4	1
Center Street, Orange Street to Stephens Avenue	456	144	46	14	5
Center Street, Stephens Avenue to Highgrove Place	659	208	66	21	7
Garner Road, Main Street to Orange Street	13	4	1	0	0
Columbia Avenue, Main Street to Orange Street	1,069	338	107	34	11
Columbia Avenue, Orange Street to Primer Street	11	4	1	0	0
Columbia Street, Primer Street to E La Cadena Drive	1,069	338	107	34	11
Strong Street, Main Street to Orange Street	239	76	24	8	2
Strong Street, Orange Street to W La Cadena Drive	43	13	4	1	0
Market Street, Rivera Street to SR-60 WB Ramps	1,377	435	138	44	14

Note: N/A = not applicable.

Table 3.11-13. Predicted Traffic Noise Contour Distances – Case II: Existing + Project (Scenario 1)

Studied Roadway Segment	Estimated Traffic Noise Contour Distance with Respect to Roadway Centerline (feet)				
	55 dBA CNEL	60 dBA CNEL	65 dBA CNEL	70 dBA CENL	75 dBA CNEL
<i>Case II: Existing + Project (Scenario 1)</i>					
S. Riverside Avenue, Pellisier Road to Center Street	2,094	662	209	66	21
Main Street, Center Street to Garner Road	928	294	93	29	9
Main Street, Garner Road to Columbia Avenue	1,546	489	155	49	15
Main Street, Columbia Avenue to Strong Street	1,219	385	122	39	12
Main Street, Strong Street to Oakley Avenue	1,628	515	163	51	16
Main Street, SR-60 EB to Spruce Street	705	223	71	22	7
Main Street, Spruce Street to Poplar Street	448	142	45	14	4
Orange Street, Pellisier Road to Center Street	N/A	N/A	N/A	N/A	N/A

Table 3.11-13. Predicted Traffic Noise Contour Distances – Case II: Existing + Project (Scenario 1)

Studied Roadway Segment	Estimated Traffic Noise Contour Distance with Respect to Roadway Centerline (feet)				
	55 dBA CNEL	60 dBA CNEL	65 dBA CNEL	70 dBA CENL	75 dBA CNEL
<i>Case II: Existing + Project (Scenario 1)</i>					
Orange Street, Center Street to Garner Road	184	58	18	6	2
Orange Street, Garner Road to Columbia Avenue	185	59	19	6	2
Orange Street, Columbia Avenue to Strong Street	343	109	34	11	3
Orange Street, Strong Street to Oakley Avenue	185	58	18	6	2
West La Cadena Drive, Chase Road to I-215 SB Ramps	563	178	56	18	6
Pellisier Road, S. Riverside Avenue to Roquet Ranch	587	186	59	19	6
Center Street, Main Street to Orange Street	416	132	42	13	4
Center Street, Orange Street to Stephens Avenue	909	287	91	29	9
Center Street, Stephens Avenue to Highgrove Place	1,121	354	112	35	11
Garner Road, Main Street to Orange Street	13	4	1	0	0
Columbia Avenue, Main Street to Orange Street	885	280	89	28	9
Columbia Avenue, Orange Street to Primer Street	11	4	1	0	0
Columbia Street, Primer Street to E La Cadena Drive	1,246	394	125	39	12
Strong Street, Main Street to Orange Street	322	102	32	10	3
Strong Street, Orange Street to W La Cadena Drive	51	16	5	2	1
Market Street, Rivera Street to SR-60 WB Ramps	1,740	550	174	55	17

Note: N/A = not applicable

Table 3.11-14. Predicted Traffic Noise Contour Distances – Case III: Existing + Project (Scenario 2)

Studied Roadway Segment	Estimated Traffic Noise Contour Distance with Respect to Roadway Centerline (feet)				
	55 dBA CNEL	60 dBA CNEL	65 dBA CNEL	70 dBA CENL	75 dBA CNEL
<i>Case III: Existing + Project (Scenario 2)</i>					
S. Riverside Avenue, Pellisier Road to Center Street	2,108	666	211	67	21
Main Street, Center Street to Garner Road	890	281	89	28	9
Main Street, Garner Road to Columbia Avenue	1,468	464	147	46	15
Main Street, Columbia Avenue to Strong Street	1,227	388	123	39	12
Main Street, Strong Street to Oakley Avenue	1,640	519	164	52	16
Main Street, SR-60 EB to Spruce Street	690	218	69	22	7
Main Street, Spruce Street to Poplar Street	441	140	44	14	4
Orange Street, Pellisier Road to Center Street	N/A	N/A	N/A	N/A	N/A
Orange Street, Center Street to Garner Road	148	47	15	5	1
Orange Street, Garner Road to Columbia Avenue	143	45	14	5	1
Orange Street, Columbia Avenue to Strong Street	339	107	34	11	3
Orange Street, Strong Street to Oakley Avenue	184	58	18	6	2
West La Cadena Drive, Chase Road to I-215 SB Ramps	526	166	53	17	5
Pellisier Road, S. Riverside Avenue to Roquet Ranch	1,346	426	135	43	13
Center Street, Main Street to Orange Street	444	140	44	14	4
Center Street, Orange Street to Stephens Avenue	948	300	95	30	9

Table 3.11-14. Predicted Traffic Noise Contour Distances – Case III: Existing + Project (Scenario 2)

Studied Roadway Segment	Estimated Traffic Noise Contour Distance with Respect to Roadway Centerline (feet)				
	55 dBA CNEL	60 dBA CNEL	65 dBA CNEL	70 dBA CENL	75 dBA CNEL
<b>Case III: Existing + Project (Scenario 2)</b>					
Center Street, Stephens Avenue to Highgrove Place	1,175	372	117	37	12
Garner Road, Main Street to Orange Street	13	4	1	0	0
Columbia Avenue, Main Street to Orange Street	866	274	87	27	9
Columbia Avenue, Orange Street to Primer Street	10	3	1	0	0
Columbia Street, Primer Street to E La Cadena Drive	1,145	362	114	36	11
Strong Street, Main Street to Orange Street	308	97	31	10	3
Strong Street, Orange Street to W La Cadena Drive	47	15	5	1	0
Market Street, Rivera Street to SR-60 WB Ramps	1,720	544	172	54	17

Note: N/A = not applicable

Table 3.11-15. Predicted Traffic Noise Contour Distances – Case IV: Horizon without Project

Studied Roadway Segment	Estimated Traffic Noise Contour Distance with Respect to Roadway Centerline (feet)				
	55 dBA CNEL	60 dBA CNEL	65 dBA CNEL	70 dBA CENL	75 dBA CNEL
<b>Case IV: Horizon without Project</b>					
S. Riverside Avenue, Pellisier Road to Center Street	2,324	735	232	73	23
Main Street, Center Street to Garner Road	1,582	500	158	50	16
Main Street, Garner Road to Columbia Avenue	2,468	780	247	78	25
Main Street, Columbia Avenue to Strong Street	1,700	537	170	54	17
Main Street, Strong Street to Oakley Avenue	2,265	716	227	72	23
Main Street, SR-60 EB to Spruce Street	890	282	89	28	9
Main Street, Spruce Street to Poplar Street	477	151	48	15	5
Orange Street, Pellisier Road to Center Street	N/A	N/A	N/A	N/A	N/A
Orange Street, Center Street to Garner Road	191	60	19	6	2
Orange Street, Garner Road to Columbia Avenue	189	60	19	6	2
Orange Street, Columbia Avenue to Strong Street	409	129	41	13	4
Orange Street, Strong Street to Oakley Avenue	223	70	22	7	2
West La Cadena Drive, Chase Road to I-215 SB Ramps	606	192	61	19	6
Pellisier Road, S. Riverside Avenue to Roquet Ranch	79	25	8	3	1
Center Street, Main Street to Orange Street	179	57	18	6	2
Center Street, Orange Street to Stephens Avenue	599	190	60	19	6
Center Street, Stephens Avenue to Highgrove Place	825	261	82	26	8
Garner Road, Main Street to Orange Street	N/A	N/A	N/A	N/A	N/A
Columbia Avenue, Main Street to Orange Street	2,020	639	202	64	20
Columbia Avenue, Orange Street to Primer Street	21	7	2	1	0
Columbia Street, Primer Street to E La Cadena Drive	1,749	553	175	55	17
Strong Street, Main Street to Orange Street	353	112	35	11	4
Strong Street, Orange Street to W La Cadena Drive	56	18	6	2	1
Market Street, Rivera Street to SR-60 WB Ramps	1,991	630	199	63	20

Note: N/A = not applicable

**Table 3.11-16. Predicted Traffic Noise Contour Distances – Case V: Horizon Project Scenario 1 without Orange Street Extension**

Studied Roadway Segment	Estimated Traffic Noise Contour Distance with Respect to Roadway Centerline (feet)				
	55 dBA CNEL	60 dBA CNEL	65 dBA CNEL	70 dBA CNEL	75 dBA CNEL
<i>Case V: Horizon Project Scenario 1 without Orange Street Extension</i>					
S. Riverside Avenue, Pellisier Road to Center Street	2,495	789	249	79	25
Main Street, Center Street to Garner Road	1,170	370	117	37	12
Main Street, Garner Road to Columbia Avenue	1,929	610	193	61	19
Main Street, Columbia Avenue to Strong Street	1,460	462	146	46	15
Main Street, Strong Street to Oakley Avenue	1,961	620	196	62	20
Main Street, SR-60 EB to Spruce Street	822	260	82	26	8
Main Street, Spruce Street to Poplar Street	541	171	54	17	5
Orange Street, Pellisier Road to Center Street	N/A	N/A	N/A	N/A	N/A
Orange Street, Center Street to Garner Road	253	80	25	8	3
Orange Street, Garner Road to Columbia Avenue	265	84	26	8	3
Orange Street, Columbia Avenue to Strong Street	426	135	43	13	4
Orange Street, Strong Street to Oakley Avenue	223	70	22	7	2
West La Cadena Drive, Chase Road to I-215 SB Ramps	666	211	67	21	7
Pellisier Road, S. Riverside Avenue to Roquet Ranch	687	217	69	22	7
Center Street, Main Street to Orange Street	495	156	49	16	5
Center Street, Orange Street to Stephens Avenue	1,262	399	126	40	13
Center Street, Stephens Avenue to Highgrove Place	1,577	499	158	50	16
Garner Road, Main Street to Orange Street	N/A	N/A	N/A	N/A	N/A
Columbia Avenue, Main Street to Orange Street	1,563	494	156	49	16
Columbia Avenue, Orange Street to Primer Street	19	6	2	1	0
Columbia Street, Primer Street to E La Cadena Drive	1,790	566	179	57	18
Strong Street, Main Street to Orange Street	361	114	36	11	4
Strong Street, Orange Street to W La Cadena Drive	59	19	6	2	1
Market Street, Rivera Street to SR-60 WB Ramps	1,964	621	196	62	20

Note: N/A = not applicable

**Table 3.11-17. Predicted Traffic Noise Contour Distances – Case VI: Horizon Project Scenario 1 with Orange Street Extension**

Studied Roadway Segment	Estimated Traffic Noise Contour Distance with Respect to Roadway Centerline (feet)				
	55 dBA CNEL	60 dBA CNEL	65 dBA CNEL	70 dBA CNEL	75 dBA CNEL
<i>Case VI: Horizon Project Scenario 1 with Orange Street Extension</i>					
S. Riverside Avenue, Pellisier Road to Center Street	2,465	779	246	78	25
Main Street, Center Street to Garner Road	1,219	386	122	39	12
Main Street, Garner Road to Columbia Avenue	1,992	630	199	63	20
Main Street, Columbia Avenue to Strong Street	1,496	473	150	47	15
Main Street, Strong Street to Oakley Avenue	2,016	638	202	64	20
Main Street, SR-60 EB to Spruce Street	769	243	77	24	8

**Table 3.11-17. Predicted Traffic Noise Contour Distances – Case VI: Horizon Project Scenario 1 with Orange Street Extension**

Studied Roadway Segment	Estimated Traffic Noise Contour Distance with Respect to Roadway Centerline (feet)				
	55 dBA CNEL	60 dBA CNEL	65 dBA CNEL	70 dBA CNEL	75 dBA CNEL
<i>Case VI: Horizon Project Scenario 1 with Orange Street Extension</i>					
Main Street, Spruce Street to Poplar Street	519	164	52	16	5
Orange Street, Pellisier Road to Center Street	489	155	49	15	5
Orange Street, Center Street to Garner Road	293	93	29	9	3
Orange Street, Garner Road to Columbia Avenue	267	85	27	8	3
Orange Street, Columbia Avenue to Strong Street	454	144	45	14	5
Orange Street, Strong Street to Oakley Avenue	161	51	16	5	2
West La Cadena Drive, Chase Road to I-215 SB Ramps	4,465	1,412	447	141	45
Pellisier Road, S. Riverside Avenue to Roquet Ranch	49	16	5	2	0
Center Street, Main Street to Orange Street	338	107	34	11	3
Center Street, Orange Street to Stephens Avenue	1,083	342	108	34	11
Center Street, Stephens Avenue to Highgrove Place	1,640	519	164	52	16
Garner Road, Main Street to Orange Street	N/A	N/A	N/A	N/A	N/A
Columbia Avenue, Main Street to Orange Street	1,582	500	158	50	16
Columbia Avenue, Orange Street to Primer Street	16	5	2	1	0
Columbia Street, Primer Street to E La Cadena Drive	15,037	4,755	1,504	475	150
Strong Street, Main Street to Orange Street	781	247	78	25	8
Strong Street, Orange Street to W La Cadena Drive	5	2	1	0	0
Market Street, Rivera Street to SR-60 WB Ramps	2,026	641	203	64	20

Note: N/A = not applicable

**Table 3.11-18. Predicted Traffic Noise Contour Distances – Case VII: Horizon Project Scenario 2 without Orange Street Extension**

Studied Roadway Segment	Estimated Traffic Noise Contour Distance with Respect to Roadway Centerline (feet)				
	55 dBA CNEL	60 dBA CNEL	65 dBA CNEL	70 dBA CNEL	75 dBA CNEL
<i>Case VII: Horizon Project Scenario 2 without Orange Street Extension</i>					
S. Riverside Avenue, Pellisier Road to Center Street	2,489	787	249	79	25
Main Street, Center Street to Garner Road	1,151	364	115	36	12
Main Street, Garner Road to Columbia Avenue	1,859	588	186	59	19
Main Street, Columbia Avenue to Strong Street	1,499	474	150	47	15
Main Street, Strong Street to Oakley Avenue	2,024	640	202	64	20
Main Street, SR-60 EB to Spruce Street	805	255	81	25	8
Main Street, Spruce Street to Poplar Street	543	172	54	17	5
Orange Street, Pellisier Road to Center Street	N/A	N/A	N/A	N/A	N/A
Orange Street, Center Street to Garner Road	200	63	20	6	2
Orange Street, Garner Road to Columbia Avenue	206	65	21	7	2
Orange Street, Columbia Avenue to Strong Street	422	134	42	13	4
Orange Street, Strong Street to Oakley Avenue	223	70	22	7	2

**Table 3.11-18. Predicted Traffic Noise Contour Distances – Case VII: Horizon Project Scenario 2 without Orange Street Extension**

Studied Roadway Segment	Estimated Traffic Noise Contour Distance with Respect to Roadway Centerline (feet)				
	55 dBA CNEL	60 dBA CNEL	65 dBA CNEL	70 dBA CENL	75 dBA CNEL
<i>Case VII: Horizon Project Scenario 2 without Orange Street Extension</i>					
West La Cadena Drive, Chase Road to I-215 SB Ramps	615	195	62	19	6
Pellisier Road, S. Riverside Avenue to Roquet Ranch	1,538	486	154	49	15
Center Street, Main Street to Orange Street	500	158	50	16	5
Center Street, Orange Street to Stephens Avenue	1,239	392	124	39	12
Center Street, Stephens Avenue to Highgrove Place	1,560	493	156	49	16
Garner Road, Main Street to Orange Street	N/A	N/A	N/A	N/A	N/A
Columbia Avenue, Main Street to Orange Street	1,593	504	159	50	16
Columbia Avenue, Orange Street to Primer Street	18	6	2	1	0
Columbia Street, Primer Street to E La Cadena Drive	1,667	527	167	53	17
Strong Street, Main Street to Orange Street	356	113	36	11	4
Strong Street, Orange Street to W La Cadena Drive	55	17	6	2	1
Market Street, Rivera Street to SR-60 WB Ramps	1,981	627	198	63	20

Note: N/A = not applicable

**Table 3.11-19. Predicted Traffic Noise Contour Distances – Case VIII: Horizon Project Scenario 2 with Orange Street Extension**

Studied Roadway Segment	Estimated Traffic Noise Contour Distance with Respect to Roadway Centerline (feet)				
	55 dBA CNEL	60 dBA CNEL	65 dBA CNEL	70 dBA CENL	75 dBA CNEL
<i>Case VIII: Horizon Project Scenario 2 with Orange Street Extension</i>					
S. Riverside Avenue, Pellisier Road to Center Street	2,467	780	247	78	25
Main Street, Center Street to Garner Road	1,172	371	117	37	12
Main Street, Garner Road to Columbia Avenue	1,891	598	189	60	19
Main Street, Columbia Avenue to Strong Street	1,437	454	144	45	14
Main Street, Strong Street to Oakley Avenue	1,942	614	194	61	19
Main Street, SR-60 EB to Spruce Street	807	255	81	26	8
Main Street, Spruce Street to Poplar Street	543	172	54	17	5
Orange Street, Pellisier Road to Center Street	1,125	356	113	36	11
Orange Street, Center Street to Garner Road	319	101	32	10	3
Orange Street, Garner Road to Columbia Avenue	287	91	29	9	3
Orange Street, Columbia Avenue to Strong Street	462	146	46	15	5
Orange Street, Strong Street to Oakley Avenue	222	70	22	7	2
West La Cadena Drive, Chase Road to I-215 SB Ramps	669	211	67	21	7
Pellisier Road, S. Riverside Avenue to Roquet Ranch	778	246	78	25	8
Center Street, Main Street to Orange Street	508	161	51	16	5
Center Street, Orange Street to Stephens Avenue	1,264	400	126	40	13
Center Street, Stephens Avenue to Highgrove Place	1,622	513	162	51	16

**Table 3.11-19. Predicted Traffic Noise Contour Distances – Case VIII: Horizon Project Scenario 2 with Orange Street Extension**

Studied Roadway Segment	Estimated Traffic Noise Contour Distance with Respect to Roadway Centerline (feet)				
	55 dBA CNEL	60 dBA CNEL	65 dBA CNEL	70 dBA CNEL	75 dBA CNEL
<i>Case VIII: Horizon Project Scenario 2 with Orange Street Extension</i>					
Garner Road, Main Street to Orange Street	N/A	N/A	N/A	N/A	N/A
Columbia Avenue, Main Street to Orange Street	1,584	501	158	50	16
Columbia Avenue, Orange Street to Primer Street	18	6	2	1	0
Columbia Street, Primer Street to E La Cadena Drive	1,802	570	180	57	18
Strong Street, Main Street to Orange Street	361	114	36	11	4
Strong Street, Orange Street to W La Cadena Drive	58	18	6	2	1
Market Street, Rivera Street to SR-60 WB Ramps	1,978	625	198	63	20

Note: N/A = not applicable

#### **Off-site Traffic Noise Impacts**

Table 3.11-20 shows the nearest existing noise-sensitive receivers external to the SPA, where the significance of off-site roadway traffic noise impacts can be assessed with respect to predicted noise exposure from the indicated studied roadway segment.

Increases in roadway traffic noise attributed to the Northside Specific Plan are displayed in Tables 3.11-21 through 3.11-26 and are meant to show comparisons of the following predictive analysis cases:

- Case I (Existing without Project) versus Case II (Existing + Project [Scenario 1]);
- Case I (Existing without Project) versus Case III (Existing + Project [Scenario 2]);
- Case IV (Horizon Year [2040] without Project) versus Case V (Horizon Year [2040] plus Scenario 1 without Orange Street extension);
- Case IV (Horizon Year [2040] without Project) versus Case VI (Horizon Year [2040] plus Scenario 1 with Orange Street extension);
- Case IV (Horizon Year [2040] without Project) versus Case VII (Horizon Year [2040] plus Scenario 2 without Orange Street extension); and,
- Case IV (Horizon Year [2040] without Project) versus Case VIII (Horizon Year [2040] plus Scenario 2 with Orange Street extension).

Table 3.11-20 shows the nearest existing noise-sensitive receivers external to the SPA, where the significance of off-site roadway traffic noise impacts can be assessed with respect to predicted noise exposure from the indicated studied roadway segment.

Table 3.11-20. Nearest Existing Off-site Noise-Sensitive Receptors

Off-site Residential Community (and Jurisdiction)	Proximity of Community to Adjoining Studied Roadway Segment
Electric Avenue and Devener Street (Riverside County)	400 feet south of Center Street, Stephens Avenue to Highgrove Place; but near I-215
Highgrove Trailer Court (Riverside County)	125 feet north of Center Street, Stephens Avenue to Highgrove Place; but near I-215
Cadena Creek - 2851 S. La Cadena Drive (City of Colton)	600–1,200 feet north of Center Street, Orange Street to Stephens Avenue
Lake Evans – Fairmount Park (City of Riverside)	1,800 feet southwest of Market Street, Rivera Street to SR-60 WB Ramps
Community Road east of Orange Avenue (City of Riverside)	425 feet east of Main Street, SR-60 EB to Spruce Street
Community east of Orange Avenue (City of Riverside)	425 feet east of Main Street, Spruce Street to Poplar Street
Community along Ridge Road (City of Riverside)	600–1,000 feet west of Main Street, Spruce Street to Poplar Street

Off-site traffic noise impacts would be considered significant when the predicted with-project noise exposure levels cause an increase over the Case I (Existing without project) or Case IV (Horizon Year [2040] without project) predicted levels by a dB quantity that exceeds the aforementioned criteria per FICON and what this analysis has adopted for the cities of Colton and Riverside. The five studied roadway segments of interest appearing in Table 3.11-20 are highlighted (in light gray) in Tables 3.11-21 through Table 3.11-26 and show the predicted CNEL values at a distance of 50 feet and the corresponding dB difference for the studied contrast of cases.

The Case I (Existing without Project) predicted CNEL values for studied roadways nearest to four of the baseline sound level survey positions M2, M4, M5, and M6 appearing in Table 3.11-2 are within +/- 2.2 dB of the measurement-based CNEL estimates (i.e., using the measured daytime sample  $L_{eq}$  values to represent CNEL). This barely perceptible difference (less than 3 dB) suggests good agreement between the measured existing outdoor sound environment and the FHWA TNM-based predictions for Case I; hence, the prediction model can be used with confidence to estimate traffic noise CNEL proximate to studied roadway segments within the SPA for the variety of future scenarios studied herein.

Note that because the predicted CNEL values in Tables 3.11-21 through 3.11-26 are presented at a distance of 50 feet, decibel adjustments to these values need to reflect the actual distances of the receptors to the studied roadways as shown in Table 3.11-20. The dB adjustment, conservatively ignoring potential sound path occlusion from terrain or existing rows of buildings, is based on the following expression for line-source sound propagation:  $-10 \cdot \text{LOG}(D/50)$ , where D is the perpendicular horizontal distance between the receptor and the roadway segment. This adjustment will not change the dB differences presented in the right-most columns of Tables 3.11-21 to 3.11-26, because it is applied to both predicted CNEL values in the contrast. Table 3.11-27 presents the adjusted CNEL values for each of the eight cases at each studied residential receptor community.

Using the distance-adjusted CNEL values from Table 3.11-27 and applying the FICON-based significant impact criteria appearing in Table 3.11-8, Table 3.11-28 presents a summary of predicted impact determinations. No significant impacts are expected for the nearest existing off-site residential communities.

**Table 3.11-21. Case I (Existing without Project) vs. Case II (Existing + Project [Scenario 1])**

Studied Roadway Segment	Case I: Existing without Project CNEL (dBA) @ 50 feet	Case II: Existing Plus Project (Scenario 1) CNEL (dBA) @ 50 feet	dB Difference
S. Riverside Avenue, Pellisier Road to Center Street	70.7	71.2	0.5
Main Street, Center Street to Garner Road	69	67.7	-1.3
Main Street, Garner Road to Columbia Avenue	71	69.9	-1.1
Main Street, Columbia Avenue to Strong Street	69.4	68.9	-0.5
Main Street, Strong Street to Oakley Avenue	70.7	70.1	-0.6
Main Street, SR-60 EB to Spruce Street	66.5	66.5	0.0
Main Street, Spruce Street to Poplar Street	64	64.5	0.5
Orange Street, Pellisier Road to Center Street	n/a	n/a	n/a
Orange Street, Center Street to Garner Road	59.1	60.7	1.6
Orange Street, Garner Road to Columbia Avenue	58.3	60.7	2.4
Orange Street, Columbia Avenue to Strong Street	63	63.4	0.4
Orange Street, Strong Street to Oakley Avenue	60.4	60.7	0.3
West La Cadena Drive, Chase Road to I-215 SB Ramps	64.9	65.5	0.6
Pellisier Road, S. Riverside Avenue to Roquet Ranch	n/a	65.7	0.0
Center Street, Main Street to Orange Street	59.4	64.2	4.8
Center Street, Orange Street to Stephens Avenue	64.6	67.6	3.0
Center Street, Stephens Avenue to Highgrove Place	66.2	68.5	2.3
Garner Road, Main Street to Orange Street	49	49.0	0.0
Columbia Avenue, Main Street to Orange Street	68.3	67.5	-0.8
Columbia Avenue, Orange Street to Primer Street	48.5	48.6	0.1
Columbia Street, Primer Street to E La Cadena Drive	68.3	69.0	0.7
Strong Street, Main Street to Orange Street	61.8	63.1	1.3
Strong Street, Orange Street to W La Cadena Drive	54.3	55.1	0.8
Market Street, Rivera Street to SR-60 WB Ramps	69.4	70.4	1.0

**Note:** n/a = not applicable

Table 3.11-22. Case I (Existing without Project) versus Case III (Existing + Project [Scenario 2])

Studied Roadway Segment	Case I: Existing without Project CNEL (dBA) @ 50 feet	Case III: Existing Plus Project (Scenario 2) CNEL (dBA) @ 50 feet	dB Difference
S. Riverside Avenue, Pellisier Road to Center Street	70.7	71.2	0.5
Main Street, Center Street to Garner Road	69	67.5	-1.5
Main Street, Garner Road to Columbia Avenue	71	69.7	-1.3
Main Street, Columbia Avenue to Strong Street	69.4	68.9	-0.5
Main Street, Strong Street to Oakley Avenue	70.7	70.2	-0.5
Main Street, SR-60 EB to Spruce Street	66.5	66.4	-0.1
Main Street, Spruce Street to Poplar Street	64	64.5	0.5
Orange Street, Pellisier Road to Center Street	n/a	n/a	n/a
Orange Street, Center Street to Garner Road	59.1	59.7	0.6
Orange Street, Garner Road to Columbia Avenue	58.3	59.6	1.3
Orange Street, Columbia Avenue to Strong Street	63	63.3	0.3
Orange Street, Strong Street to Oakley Avenue	60.4	60.7	0.3
West La Cadena Drive, Chase Road to I-215 SB Ramps	64.9	65.2	0.3
Pellisier Road, S. Riverside Avenue to Roquet Ranch	n/a	69.3	3.6
Center Street, Main Street to Orange Street	59.4	64.5	5.1
Center Street, Orange Street to Stephens Avenue	64.6	67.8	3.2
Center Street, Stephens Avenue to Highgrove Place	66.2	68.7	2.5
Garner Road, Main Street to Orange Street	49	49.0	0.0
Columbia Avenue, Main Street to Orange Street	68.3	67.4	-0.9
Columbia Avenue, Orange Street to Primer Street	48.5	48.2	-0.3
Columbia Street, Primer Street to E La Cadena Drive	68.3	68.6	0.3
Strong Street, Main Street to Orange Street	61.8	62.9	1.1
Strong Street, Orange Street to W La Cadena Drive	54.3	54.7	0.4
Market Street, Rivera Street to SR-60 WB Ramps	69.4	70.4	1.0

Note: n/a = not applicable

**Table 3.11-23. Case IV (Horizon Year [2040] without Project) versus Case V (Horizon Year [2040] plus Scenario 1 without Orange Street extension)**

Studied Roadway Segment	Case IV: Horizon Year (2040) without Project CNEL (dBA) @ 50 feet	Case V: Horizon Year (2040) plus Scenario 1 without Orange St. Ext. CNEL (dBA) @ 50 feet	dB Difference
S. Riverside Avenue, Pellisier Road to Center Street	71.7	72.0	0.3
Main Street, Center Street to Garner Road	70.0	68.7	-1.3
Main Street, Garner Road to Columbia Avenue	71.9	70.9	-1.1
Main Street, Columbia Avenue to Strong Street	70.3	69.7	-0.7
Main Street, Strong Street to Oakley Avenue	71.6	70.9	-0.6
Main Street, SR-60 EB to Spruce Street	67.5	67.2	-0.3
Main Street, Spruce Street to Poplar Street	64.8	65.3	0.5
Orange Street, Pellisier Road to Center Street	n/a	n/a	n/a
Orange Street, Center Street to Garner Road	60.8	62.0	1.2
Orange Street, Garner Road to Columbia Avenue	60.8	62.2	1.5
Orange Street, Columbia Avenue to Strong Street	64.1	64.3	0.2
Orange Street, Strong Street to Oakley Avenue	61.5	61.5	0.0
West La Cadena Drive, Chase Road to I-215 SB Ramps	65.8	66.2	0.4
Pellisier Road, S. Riverside Avenue to Roquet Ranch	57.0	66.4	9.4
Center Street, Main Street to Orange Street	60.5	65.0	4.4
Center Street, Orange Street to Stephens Avenue	65.8	69.0	3.2
Center Street, Stephens Avenue to Highgrove Place	67.2	70.0	2.8
Garner Road, Main Street to Orange Street	n/a	n/a	n/a
Columbia Avenue, Main Street to Orange Street	71.1	69.9	-1.1
Columbia Avenue, Orange Street to Primer Street	51.2	50.7	-0.5
Columbia Street, Primer Street to E La Cadena Drive	70.4	70.5	0.1
Strong Street, Main Street to Orange Street	63.5	63.6	0.1
Strong Street, Orange Street to W La Cadena Drive	55.5	55.7	0.2
Market Street, Rivera Street to SR-60 WB Ramps	71.0	70.9	-0.1

Note: n/a = not applicable

**Table 3.11-24. Case IV (Horizon Year [2040] without Project) versus Case VI (Horizon Year [2040] plus Scenario 1 with Orange Street extension)**

Studied Roadway Segment	Case IV: Horizon Year (2040) without Project CNEL (dBA) @ 50 feet	Case VI: Horizon Year (2040) plus Scenario 1 with Orange St. Ext. CNEL (dBA) @ 50 feet	dB Difference
S. Riverside Avenue, Pellisier Road to Center Street	71.7	71.9	0.3
Main Street, Center Street to Garner Road	70.0	68.9	-1.1
Main Street, Garner Road to Columbia Avenue	71.9	71.0	-0.9
Main Street, Columbia Avenue to Strong Street	70.3	69.8	-0.6
Main Street, Strong Street to Oakley Avenue	71.6	71.1	-0.5
Main Street, SR-60 EB to Spruce Street	67.5	66.9	-0.6
Main Street, Spruce Street to Poplar Street	64.8	65.2	0.4
Orange Street, Pellisier Road to Center Street	n/a	64.9	n/a
Orange Street, Center Street to Garner Road	60.8	62.7	1.9
Orange Street, Garner Road to Columbia Avenue	60.8	62.3	1.5
Orange Street, Columbia Avenue to Strong Street	64.1	64.6	0.5
Orange Street, Strong Street to Oakley Avenue	61.5	60.1	-1.4
West La Cadena Drive, Chase Road to I-215 SB Ramps	65.8	74.5	8.7
Pellisier Road, S. Riverside Avenue to Roquet Ranch	57.0	54.9	-2.1
Center Street, Main Street to Orange Street	60.5	63.3	2.7
Center Street, Orange Street to Stephens Avenue	65.8	68.4	2.6
Center Street, Stephens Avenue to Highgrove Place	67.2	70.2	3.0
Garner Road, Main Street to Orange Street	n/a	n/a	n/a
Columbia Avenue, Main Street to Orange Street	71.1	70.0	-1.1
Columbia Avenue, Orange Street to Primer Street	51.2	50.0	-1.2
Columbia Street, Primer Street to E La Cadena Drive	70.4	79.8	9.3
Strong Street, Main Street to Orange Street	63.5	66.9	3.4
Strong Street, Orange Street to W La Cadena Drive	55.5	45.2	-10.3
Market Street, Rivera Street to SR-60 WB Ramps	71.0	71.1	0.1

**Note:** n/a = not applicable

**Table 3.11-25. Case IV (Horizon Year [2040] without Project) versus Case VII (Horizon Year [2040] plus Scenario 2 without Orange Street extension)**

<b>Studied Roadway Segment</b>	<b>Case IV: Horizon Year (2040) without Project CNEL (dBA) @ 50 feet</b>	<b>Case VII: Horizon Year (2040) plus Scenario 1 without Orange St. Ext. CNEL (dBA) @ 50 feet</b>	<b>dB Difference</b>
S. Riverside Avenue, Pellisier Road to Center Street	71.7	72.0	0.3
Main Street, Center Street to Garner Road	70.0	68.6	-1.4
Main Street, Garner Road to Columbia Avenue	71.9	70.7	-1.2
Main Street, Columbia Avenue to Strong Street	70.3	69.8	-0.5
Main Street, Strong Street to Oakley Avenue	71.6	71.1	-0.5
Main Street, SR-60 EB to Spruce Street	67.5	67.1	-0.4
Main Street, Spruce Street to Poplar Street	64.8	65.4	0.6
Orange Street, Pellisier Road to Center Street	n/a	n/a	n/a
Orange Street, Center Street to Garner Road	60.8	61.0	0.2
Orange Street, Garner Road to Columbia Avenue	60.8	61.1	0.4
Orange Street, Columbia Avenue to Strong Street	64.1	64.3	0.1
Orange Street, Strong Street to Oakley Avenue	61.5	61.5	0.0
West La Cadena Drive, Chase Road to I-215 SB Ramps	65.8	65.9	0.1
Pellisier Road, S. Riverside Avenue to Roquet Ranch	57.0	69.9	12.9
Center Street, Main Street to Orange Street	60.5	65.0	4.5
Center Street, Orange Street to Stephens Avenue	65.8	68.9	3.2
Center Street, Stephens Avenue to Highgrove Place	67.2	69.9	2.8
Garner Road, Main Street to Orange Street	n/a	n/a	n/a
Columbia Avenue, Main Street to Orange Street	71.1	70.0	-1.0
Columbia Avenue, Orange Street to Primer Street	51.2	50.5	-0.7
Columbia Street, Primer Street to E La Cadena Drive	70.4	70.2	-0.2
Strong Street, Main Street to Orange Street	63.5	63.5	0.0
Strong Street, Orange Street to W La Cadena Drive	55.5	55.4	0.0
Market Street, Rivera Street to SR-60 WB Ramps	71.0	71.0	0.0

**Note:** n/a = not applicable

**Table 3.11-26. Case IV (Horizon Year [2040] without Project) versus Case VIII (Horizon Year [2040] plus Scenario 2 with Orange Street extension)**

Studied Roadway Segment	Case IV: Horizon Year (2040) without Project CNEL (dBA) @ 50 feet	Case VIII: Horizon Year (2040) plus Scenario 1 with Orange St. Ext. CNEL (dBA) @ 50 feet	dB Difference
S. Riverside Avenue, Pellisier Road to Center Street	71.7	71.9	0.3
Main Street, Center Street to Garner Road	70.0	68.7	-1.3
Main Street, Garner Road to Columbia Avenue	71.9	70.8	-1.2
Main Street, Columbia Avenue to Strong Street	70.3	69.6	-0.7
Main Street, Strong Street to Oakley Avenue	71.6	70.9	-0.7
Main Street, SR-60 EB to Spruce Street	67.5	67.1	-0.4
Main Street, Spruce Street to Poplar Street	64.8	65.4	0.6
Orange Street, Pellisier Road to Center Street	n/a	68.5	n/a
Orange Street, Center Street to Garner Road	60.8	63.0	2.2
Orange Street, Garner Road to Columbia Avenue	60.8	62.6	1.8
Orange Street, Columbia Avenue to Strong Street	64.1	64.7	0.5
Orange Street, Strong Street to Oakley Avenue	61.5	61.5	0.0
West La Cadena Drive, Chase Road to I-215 SB Ramps	65.8	66.3	0.4
Pellisier Road, S. Riverside Avenue to Roquet Ranch	57.0	66.9	9.9
Center Street, Main Street to Orange Street	60.5	65.1	4.5
Center Street, Orange Street to Stephens Avenue	65.8	69.0	3.2
Center Street, Stephens Avenue to Highgrove Place	67.2	70.1	2.9
Garner Road, Main Street to Orange Street	n/a	n/a	n/a
Columbia Avenue, Main Street to Orange Street	71.1	70.0	-1.1
Columbia Avenue, Orange Street to Primer Street	51.2	50.6	-0.6
Columbia Street, Primer Street to E La Cadena Drive	70.4	70.6	0.1
Strong Street, Main Street to Orange Street	63.5	63.6	0.1
Strong Street, Orange Street to W La Cadena Drive	55.5	55.6	0.2
Market Street, Rivera Street to SR-60 WB Ramps	71.0	71.0	0.0

**Note:** n/a = not applicable

Table 3.11-27. Predicted Off-site Traffic Noise CNEL Adjusted for Distance

Off-site Residential Community (and Jurisdiction)	Predicted CNEL (dBA) Adjusted for Distance between Roadway Segment and Nearest Off-site Residential Community Receptor							
	Case I	Case II	Case III	Case IV	Case V	Case VI	Case VII	Case VIII
Electric Avenue and Devener Street (Riverside County)	57	59	60	58	61	61	61	61
Highgrove Trailer Court (Riverside County)	62	65	65	63	66	66	66	66
Cadena Creek - 2851 S. La Cadena Drive (City of Colton)	54	57	57	55	58	58	58	58
Lake Evans – Fairmount Park (City of Riverside)	54	55	55	55	55	56	55	55
Community east of Orange Avenue - SR-60 EB to Spruce Street (City of Riverside)	57	57	57	58	58	58	58	58
Community east of Orange Avenue - Spruce Street to Poplar Street (City of Riverside)	55	55	55	56	56	56	56	56
Community along Ridge Road (City of Riverside)	53	54	54	54	55	54	55	55

Table 3.11-28. Predicted Off-site Traffic Noise Impacts at Existing Residential Communities

Off-site Residential Community (and Jurisdiction)	Significant Impact for Case Contrast?					
	Case I vs. Case II	Case I vs. Case III	Case IV vs. Case V	Case IV vs. Case VI	Case IV vs. Case VII	Case IV vs. Case VIII
Electric Avenue and Devener Street (Riverside County)	no	no	no	no	no	no
Highgrove Trailer Court (Riverside County)	no	no	no	no	no	no
Cadena Creek - 2851 S. La Cadena Drive (City of Colton)	no	no	no	no	no	no
Lake Evans – Fairmount Park (City of Riverside)	no	no	no	no	no	no
Community east of Orange Avenue - SR-60 EB to Spruce Street (City of Riverside)	no	no	no	no	no	no

Table 3.11-28. Predicted Off-site Traffic Noise Impacts at Existing Residential Communities

Off-site Residential Community (and Jurisdiction)	Significant Impact for Case Contrast?					
	Case I vs. Case II	Case I vs. Case III	Case IV vs. Case V	Case IV vs. Case VI	Case IV vs. Case VII	Case IV vs. Case VIII
Community east of Orange Avenue - Spruce Street to Poplar Street (City of Riverside)	no	no	no	no	no	no
Community along Ridge Road (City of Riverside)	no	no	no	no	no	no

### Stationary Noise Impacts

**Less-than-Significant Impact.** The Northside Specific Plan proposes to integrate land uses in within the cities of Riverside and Colton, as well as a residential community within Riverside County (west of the I-215 interchange with Center Street) which is in the City of Riverside’s Sphere of Influence (SOI). As such, existing and future noise-sensitive land uses, such as residential, could be located in sufficient proximity to non-transportation (“stationary”) noise generators that may generate significant noise impacts.

In addition to common building HVAC system components exposed to the outdoors, such as air-cooled condensers, ventilation fan intakes, and exhaust discharge stacks, stationary sources of noise include activities associated with a given land use. For example, noise sources in commercial uses would include car washes, auto repair facilities, fast food restaurants, parking lots, and a variety of other uses; sources of noise in industrial and manufacturing areas would include operation of heavy machinery (e.g., metal stamping, rock crushing), truck loading/unloading, and other industrial activities. Commercial and industrial uses in the SPA could include manufacturing and warehousing, repair facilities, manufacturing facilities, machine shops, recycling facilities, and auto repair. Noise from these existing and future land uses would, in addition to noise from nearby and distant roadway traffic, acoustically contribute to the outdoor sound environment of the SPA.

As summarized in Section 3.11.2.3, policies from the noise elements of the Riverside County, City of Riverside, and City of Colton general plans require noise studies for proposed land use developments that may be potentially incompatible with the proximate existing outdoor sound environments (**CM-NOI-1, CM-NOI-2, and CM-NOI-3**). Further, noise ordinances for these same jurisdictions either limit hours of operation for various noise-generating activities, exterior and interior noise thresholds that must not be exceeded, or both (**CM-NOI-4, CM-NOI-5, and CM-NOI-6**). These criteria, which appear in Table 3.11-8 for non-transportation stationary noise sources, would be applied as future development is proposed within the SPA, and potential impacts from site-specific stationary sources of noise emission (e.g., building HVAC) would be determined. Since such project-specific details are unknown, impacts and mitigation needs of multiple future development projects implemented under the Northside Specific Plan cannot be quantified at this time.

However, what is known are the performance standards as follows: 65 dBA hourly  $L_{eq}$  anytime during the day or night for the City of Colton; 55 dBA hourly  $L_{eq}$  during the day and 45 dBA hourly  $L_{eq}$  at night for the City of Riverside; and, 65 dBA hourly  $L_{eq}$  during the day and 45 dBA hourly  $L_{eq}$  at night for the County of Riverside. Future projects proposed and implemented within the SPA must therefore design, select, and install stationary noise-producing equipment

(e.g., rooftop air-cooled condensers) that meet these quantified limits either due to inherent noise control features or via the application of on-site sound abatement (e.g., rooftop parapet or equipment screen) between the noise-producing sources and the impact assessment locations. Acoustical analyses prepared and submitted by the project applicants to the relevant jurisdiction shall quantifiably demonstrate that expected application of these feasible and reasonable noise control and sound abatement means on stationary noise-producing electro-mechanical and fluid-handling systems would result in compliance with these Riverside County, City of Riverside, City of Colton standards. For this reason, stationary source operation noise impacts for the Northside Specific Plan are anticipated to be **less than significant**.

***Would the project result in generation of excessive groundborne vibration or groundborne noise levels?***

**Less-Than-Significant Impact with Mitigation Incorporated.** Groundborne vibration attenuates rapidly, even over short distances. The attenuation of groundborne vibration as it propagates from source to receptor through intervening soils and rock strata can be estimated with expressions found in FTA and Caltrans guidance. By way of example, for a bulldozer operating on site and as close as the western project boundary (i.e., 15 feet from the nearest receiving sensitive land use) the estimated vibration velocity level would be 0.19 ips PPV per the equation as follows (FTA 2018):

$$PPV_{rcvr} = PPV_{ref} * (25/D)^{1.5} = 0.19 = 0.089 * (25/15)^{1.5}$$

In the above equation,  $PPV_{rcvr}$  is the predicted vibration velocity at the receiver position,  $PPV_{ref}$  is the reference value at 25 feet from the vibration source (the bulldozer), and D is the actual horizontal distance to the receiver.

Although precise locations of projects and activities involving construction approved under the Northside Specific Plan are not known at this time, Table 3.11-29 presents a variety of typical construction activities and notes the anticipated most vibratory piece of equipment for each. The predicted values in feet indicate source-to-receptor distances within which building damage risk (to an average residential structure or an historic building) and occupant annoyance impact, respectively, could reasonably be expected.

**Table 3.11-29. Screening Distances (per Typical Construction Activity) to Avoid Significant Construction Vibration Impact**

Typical Construction Phase (and Reference PPV at 25 feet* for Sample Vibration-Producing Equipment)	Minimum Source-to-Receptor** Distance (feet) to Comply with 0.3 ips PPV Building Damage Risk	Minimum Source-to-Receptor** Distance (feet) to Comply with 0.2 ips PPV Human Annoyance	Minimum Source-to-Receptor*** Distance (feet) to Comply with 0.12 ips PPV Building Damage Risk
Demolition (hoe ram = 0.089 ips)	12	15	21
Site Preparation (dozer = 0.089 ips)	12	15	21
Material hauling (loaded truck = 0.076 ips)	10	14	19
Foundation (impact pile-driving = 0.644 ips)	42	55	77
Paving (roller = 0.21 ips)	20	26	37

**Notes:** ips = inches per second, PPV = peak particle velocity

\* Per Transit Noise and Vibration Impact Assessment Manual (FTA 2018).

\*\* A typical residential structure, such as a single-family home.

\*\*\* An historic building or extremely fragile structure (FTA 2018, Caltrans 2013b).

So long as the screening distances in Table 3.11-29 are heeded, construction vibration impacts would be considered less than significant. But if the proximity to sensitive receptors of a specific project developed as a result of Specific Plan required construction equipment comparable to those listed in Table 3.11-29 to be operated within the indicated distances, then construction-related vibration impacts would be significant (**Impact NOI-3**).

Another potential trigger for significant construction vibration impacts would be the proximity of recognized historic structures, for which Caltrans suggests more stringent thresholds:

Once operational, the new development implemented within the Northside Specific Plan would not be expected to feature major producers of enduring groundborne vibration. Anticipated mechanical systems like heating, ventilation, and air-conditioning units are designed and manufactured to feature rotating (fans, motors) and reciprocating (compressors) components that are well-balanced with isolated vibration within or external to the equipment casings. In addition, the allowed uses are not anticipated to include heavy industrial or manufacturing facilities that involve high-energy material-to-material impacts (and would thus resemble pile-drivers). On this basis, potential vibration impacts due to proposed project operation would be **less than significant**.

***For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?***

**Less-than-Significant Impact.** The nearest airport is Flabob Airport, a small privately owned facility located approximately 2 miles southwest of Potential Area A. The nearest major airport is San Bernardino International Airport (SBIAA, formerly Norton Air Force Base), located approximately 7.2 miles northeast of Potential Area D. Additionally, March Air Reserve Base is located approximately 8.1 miles southeast of Potential Area B. The SPA and Potential Areas are located outside of the Airport Influence Area boundaries of Flabob and SBIAA. Potential Area B is located within the Airport Influence Area boundary (Zone E, the outermost boundary area, noise impact classified as low) of March Air Reserve Base (Riverside County Airport Land Use Commission 2014). The SPA is not within any noise contours from surrounding airports, and noise impacts from airports would be less than significant.

### 3.11.5 Mitigation Measures

To reduce potential construction-related noise impacts (**Impact NOI-1**), the following mitigation is proposed:

**MM-NOI-1 Construction Noise Abatement Measures.** The following practices would reduce any construction equipment noise level increases to the outdoor ambient sound environment at nearby noise-sensitive residential land uses.

- Prior to approval of grading plans and/or issuance of building permits, plans shall include remarks that indicate adherence to County or municipal standards with respect to allowable hours of construction activity. The responsible project supervisor shall ensure compliance with these standards on site, and the County or municipal entity having jurisdiction shall conduct site inspections to check for compliance at its discretion.
- Construction contractors shall equip all construction equipment, fixed or mobile, with properly operating and maintained mufflers, air intakes, shrouds, etc. consistent with manufacturers' standards.

- Construction contractors shall orient and locate all stationary construction equipment (generators, compressors, pumps, etc.) in a manner that maximizes the distance to a nearest noise-sensitive receptor, and/or directs the loudest side of noise emission away from said receptor.
- As needed, such as when source-to-receptor distances have been maximized to the extent practical, on-site contractors shall install or field-erect temporary noise barriers to occlude direct paths of sound (and thus attenuate noise level) between noisy equipment and the nearest noise-sensitive receptors. Locating material or debris containers, tanks, trailers, or other solid path-occluding obstructions may also exhibit comparable noise reducing effects.
- Construction contractors shall locate equipment staging in areas that will create the greatest distance between on-site noise-producing equipment, vehicles, and processes and the nearest noise-sensitive receptors to the project site.
- Construction contractors shall establish a communication channel (telephone and/or email) so that members of the public may report noise concerns. The contractors shall designate a representative (or team) to respond to such inquiries and investigate them in a timely manner. If complaints are determined to be valid and attributed to project construction activity, the representative shall inform the applicable jurisdiction and the construction contractor shall implement reasonable and feasible measures to address the complaint.

No mitigation is feasible to reduce noise compatibility impacts (**Impact NOI-2**) beyond those measures already required (**CM-NOI-1**, **CM-NOI-2**, and **CM-NOI-3**).

To reduce potential construction-related vibration impacts (**Impact NOI-3**), the following mitigation is proposed:

**MM-NOI-2 Construction Vibration Abatement Measures.** If heavy construction equipment akin to those listed in Table 3.11-29 are expected to be in usage on-site and within the indicated screening distances to avoid significant impact, the following shall be implemented:

- A pre-construction condition survey shall be prepared by a qualified independent structural engineer, documenting information that includes existing conditions of the construction site in the vicinity of the off-site vibration-sensitive receptor (e.g., residence or historic structure), and observable conditions of the receiving structure (e.g., façades).
- During construction, the contractor(s) shall install and maintain at least one continuously operational automated vibration monitor at the receptor(s) of concern. The monitor(s) must be capable of being programmed with at least one pre-determined vibratory velocity level, such as a peak vector sum or single-axis alert equivalent to the following:
  - For residential structures, 0.27 inches per second (in/sec) peak particle velocity (PPV) to warn of continuous vibration approaching the 0.3 ips PPV standard.
  - For historic structures, 0.08 inches per second (in/sec) peak particle velocity (PPV) to warn of continuous vibration approaching the 0.12 ips PPV standard.

The monitoring system must produce real-time specific alerts (e.g., via text message and/or email to on-site personnel) when vibration velocities exceed the predetermined levels. In the event of an alert, feasible steps to reduce vibratory levels shall be undertaken, including but not limited to halting/staggering concurrent activities and using lower-vibratory techniques. In the event of an exceedance alert, work in the vicinity shall be suspended and the

concerned building or structure visually inspected for potential damage. Results of the inspection must be logged. Work shall be resumed and re-monitored briefly after implementation of vibration-reducing means or methods. If said methods exhibit vibration velocity levels that are compliant with the standard and remain in usage or in place for the duration of the need construction activity, work may resume until its determined completion on-site. If initial vibration monitoring after installation of these methods demonstrates that threshold approach alerts continue to occur and suggest risk of exceeding the applicable standard, additional and/or better-performing measures shall be applied and then re-assessed with subsequent vibration monitoring that confirms compliance with the standard while such measures are in place and until the vibration-producing has ceased or is completed. A post-construction condition survey shall be prepared by a qualified independent structural engineer, documenting information that includes observable post-construction conditions of the concerned receiving structure(s).

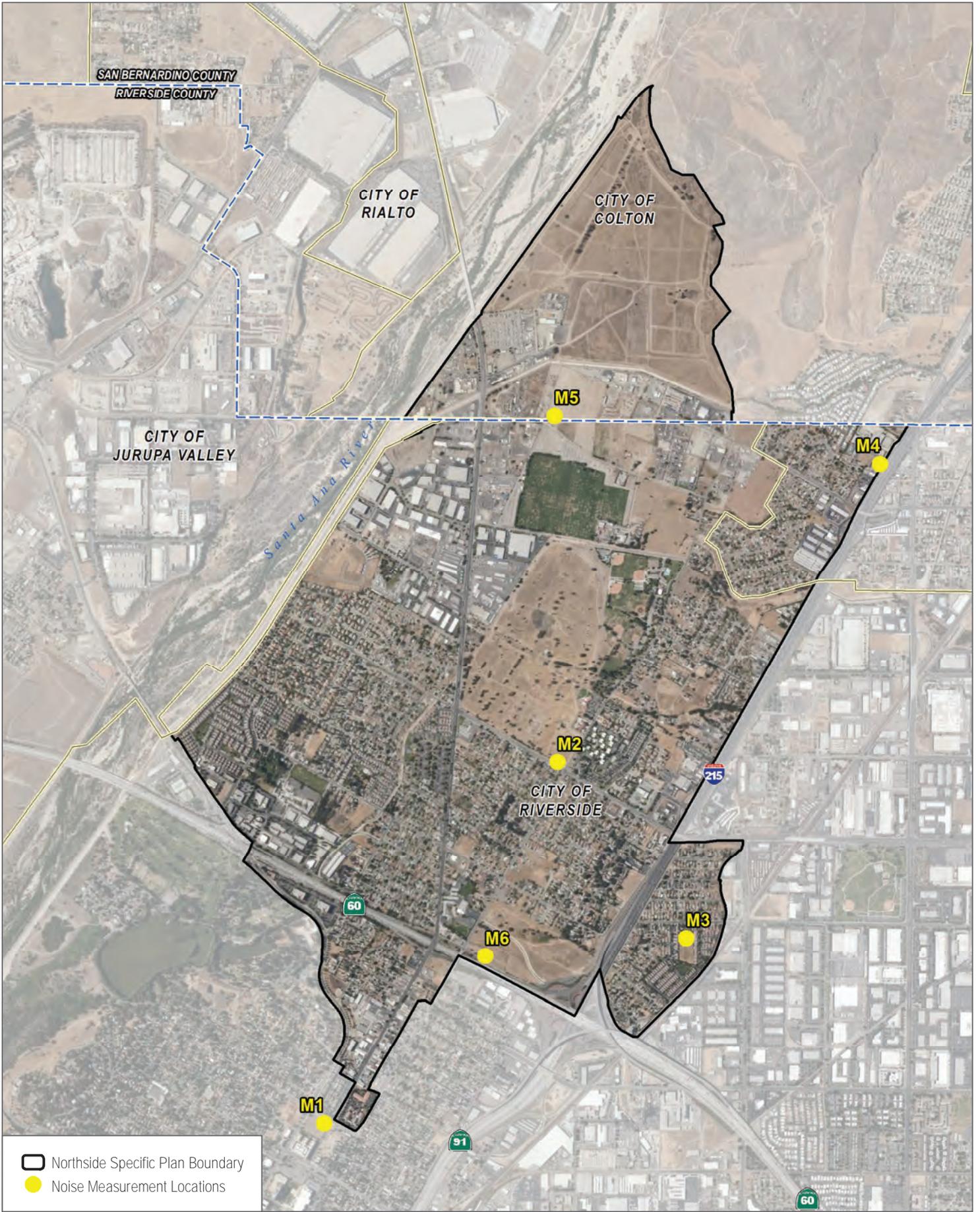
### 3.11.6 Level of Significance After Mitigation

The future construction allowed under the Northside Specific Plan would potential result in significant construction-related noise (**Impact NOI-1**) and vibration (**Impact NOI-3**) impacts. The construction noise abatement measures outlined in **MM-NOI-1** would reduce construction noise impacts to below a level of significance. By way of example, proper implementation of a temporary sound barrier (e.g., installed sound blanket or other field-erected barrier that linearly occludes the direct sound path between a noise-producing construction activity or process) would be expected to yield at least 5-6 dB of noise reduction, which would thus reduce the magnitude of construction-attributed noise exposure at a residential or commercial receptor to a level less than the FTA-based 80 dBA 8-hour  $L_{eq}$  or 85 dBA 8-hour  $L_{eq}$  guidance threshold, respectively. However, the City of Riverside does not have jurisdiction over development projects that occur within the Northside Specific Plan areas within the County of Riverside or City of Colton; thus, the City of Riverside cannot legally impose these mitigation measures. For this reason, these noise impacts are considered significant and unavoidable.

Similarly, the construction vibration abatement measures outlined in **MM-NOI-2** would, when implemented properly, would reduce potential construction vibration velocities (**Impact NOI-3**) at sensitive receptors to levels that do not exceed the aforementioned guidance thresholds for building damage risk and building occupant annoyance and would thus result in less than significant impact. However, the City of Riverside does not have jurisdiction over development projects that occur within the Northside Specific Plan areas within the County or Riverside or City of Colton; thus, the City of Riverside cannot legally impose this mitigation measure. For this reason, these noise impacts are considered significant and unavoidable.

While each jurisdiction requires site-specific noise analysis to be completed prior to issuance of permits (**CM-NOI-1**, **CM-NOI-2**, and **CM-NOI-3**), there would potentially be situations where it may not be feasible for future projects to comply with land use compatibility requirements. For example, the location of a passive park next to a roadway that generates noise in excess of the compatibility standard. Due to the need to retain pedestrian connectivity and aesthetics, the use of a noise wall would be potentially infeasible. The SPA also contains potential historic structures that may be allowed to be converted to other uses by the Northside Specific Plan, and restrictions on building modifications may be required in compliance with historic regulations (see Section 3.4, Cultural Resources). As these structures may be adjacent to roadways that generate noise in excess of land use compatibility requirements, there is also potential for noise compatibility impacts to be unmitigable. For these reasons and, on-site traffic noise impacts for the Northside Specific Plan are anticipated to be potentially significant and unavoidable (**Impact NOI-2**).

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Northside Specific Plan Boundary  
● Noise Measurement Locations

SOURCE: City of Riverside 2017; Bing Maps 2020



**FIGURE 3.11-1**  
 Noise Measurement Locations  
 Northside Specific Plan Program EIR

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Figure 3.11-2 City of Riverside Noise/Land Use Compatibility Criteria

Land Use Category	Community Noise Equivalent Level (CNEL) or Day-Night Level (Ldn), dB						
	55	60	65	70	75	80	85
Single Family Residential*			Conditionally Acceptable	Normally Unacceptable			
Infill Single Family Residential*				Conditionally Acceptable	Normally Unacceptable		
Commercial- Motels, Hotels, Transient Lodging				Conditionally Acceptable	Normally Unacceptable		
Schools, Libraries, Churches, Hospitals, Nursing Homes				Conditionally Acceptable	Normally Unacceptable		
Amphitheaters, Concert Hall, Auditorium, Meeting Hall			Conditionally Acceptable	Normally Unacceptable			
Sports Arenas, Outdoor Spectator Sports			Conditionally Acceptable	Normally Unacceptable			
Playgrounds, Neighborhood Parks				Conditionally Acceptable	Normally Unacceptable		
Golf Courses, Riding Stables, Water Rec., Cemeteries				Conditionally Acceptable	Normally Unacceptable		
Office Buildings, Business, Commercial, Professional				Conditionally Acceptable	Normally Unacceptable		
Industrial, Manufacturing Utilities, Agriculture				Conditionally Acceptable	Normally Unacceptable		
Freeway Adjacent Commercial, Office, and Industrial Uses.				Conditionally Acceptable	Normally Unacceptable		

**Nature of the noise environment where the CNEL or Ldn level is:**

**Below 55 dB**  
Relatively quiet suburban or urban areas, no arterial streets within 1 block, no freeways within 1/4 mile.

**55-65 dB**  
Most somewhat noisy urban areas, near but not directly adjacent to high volumes of traffic.

**65-75 dB**  
Very noisy urban areas near arterials, freeways or airports.

**75+ dB**  
Extremely noisy urban areas adjacent to freeways or under airport traffic patterns. Hearing damage with constant exposure outdoors.

 **Normally Acceptable**

Specific land use is satisfactory, based on the assumption that any building is of normal conventional construction, without any special noise insulation requirements.

 **Conditionally Acceptable**

New construction or development should be undertaken only after a detailed analysis of noise reduction requirements is made and needed noise insulation features included in design. Conventional construction, but with closed windows and fresh air supply systems or air conditioning, will normally suffice.

 **Normally Unacceptable**

New construction or development should generally be discouraged. If new construction or development does proceed, a detailed analysis of noise reduction requirements must be made and needed noise insulation features included in design.

 **Conditionally Unacceptable**

New construction or development should generally not be undertaken, unless it can be demonstrated that noise reduction requirements can be employed to reduce noise impacts to an acceptable level. If new construction or development does proceed, a detailed analysis of noise reduction requirements must be made and needed noise insulation features included in the design.

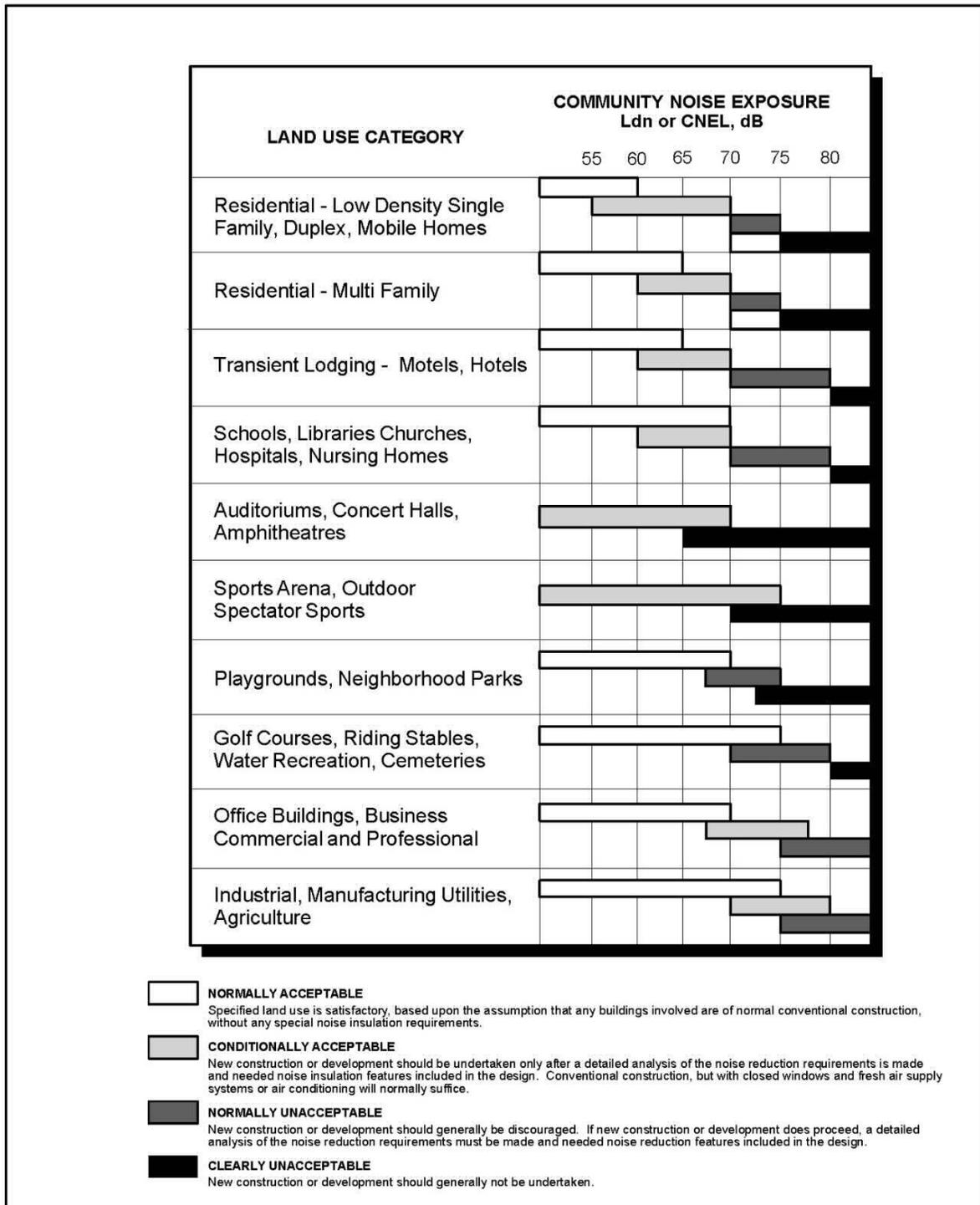
The Community Noise Equivalent Level (CNEL) and Day-Night Noise Level (Ldn) are measures of the 24-hour noise environment. They represent the constant A-weighted noise level that would be measured if all the sound energy received over the day were averaged. In order to account for the greater sensitivity of people to noise at night, the CNEL weighting includes a 5-decibel penalty on noise between 7:00 p.m. and 10:00 p.m. and a 10-decibel penalty on noise between 10:00 p.m. and 7:00 a.m. of the next day. The Ldn includes only the 10-decibel weighting for late-night noise events. For practical purposes, the two measures are equivalent for typical urban noise environments.

\* For properties located within airport influence areas, acceptable noise limits for single family residential uses are established by the Riverside County Airport Land Use Compatibility Plan.

SOURCE: STATE DEPARTMENT OF HEALTH, AS MODIFIED BY THE CITY OF RIVERSIDE

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Figure 3.11-3 City of Colton Noise/Land Use Compatibility Criteria



SOURCE: California Governor's Office of Planning and Research, State of California General Plan Guidelines, Appendix C: Guidelines for the Preparation and Content of Noise Elements of the General Plan, February 1976

State Land Use Compatibility Guidelines for Noise

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## 3.12 Population and Housing

This section describes the existing population, housing conditions of the Northside Specific Plan Area (SPA), and vicinity, identifies associated regulatory requirements, evaluates potential impacts, and identifies mitigation measures related to implementation of the Northside Specific Plan. Based on Appendix G of the California Environmental Quality Act (CEQA) Guidelines, this section evaluates the Northside Specific Plan’s potential to cause unplanned population growth or impact existing housing in a manner that requires replacement housing elsewhere.

### 3.12.1 Existing Conditions

#### 3.12.1.1 Population

The Southern California Association of Governments (SCAG) is the metropolitan planning organization for a six-county region spanning approximately 38,000 square miles (SCAG 2018). Counties under the jurisdiction of SCAG include Ventura, Los Angeles, Orange, San Bernardino, Riverside, and Imperial (SCAG 2018). SCAG is responsible for developing demographic projections, including population, household, and employment projection for its region.

##### **City of Riverside**

As of 2018, the City of Riverside had an estimated population of 330,063, making it the twelfth most populous city in California (SCAG 2019a). According to SCAG’s 2019 Local Profile, from 2000 to 2018 the City of Riverside had a growth rate of 27.7%, beginning with 255,166 residents in 2000 (SCAG 2019a). According to SCAG’s 2016 to 2040 Regional Transportation Plan/Sustainable Communities Strategies (RTP/SCS) population forecasts, the City of Riverside is estimated to reach a population of 386,600 by 2040 (SCAG 2016). Table 3.12-1, Current and Forecasted Populations, provides population statistics for the City of Riverside.

##### **City of Colton**

As of 2018, the City of Colton had an estimated population of 54,828 (SCAG 2019b). Between 2000 and 2018, the City of Colton had a growth rate of 15%, beginning with 47,662 residents in 2000 (SCAG 2019b). According to SCAG’s 2016 to 2040 RTP/SCS population forecasts, the City of Colton is estimated to reach a population of 69,100 by 2040 (SCAG 2016). Table 3.12-1, Current and Forecasted Populations, provides population statistics for the City of Colton.

##### **County of Riverside**

As of 2018, County of Riverside had a population of 2,415,954 (SCAG 2019c). From 2000 to 2018, the County of Riverside’s population growth rate was 56.3%, beginning with 1,545,387 residents in 2000 (SCAG 2019c). By 2040, the County of Riverside is projected to reach a population of 3,183,700 (SCAG 2016). Table 3.12-1, Current and Forecasted Populations, provides population statistics for the County of Riverside. The SPA encompasses a portion of unincorporated Riverside County that is developed and built out.

Table 3.12-1. Current and Forecasted Populations

Name	2018 Estimated Population	2040 Forecasted Population
<b>City</b>		
Riverside	330,063	386,600
Colton	54,828	69,100
<b>County</b>		
Riverside	2,415,954	3,183,700

Sources: SCAG 2019b, 2019c, 2019d, 2019e; SCAG 2016.

### 3.12.1.2 Housing

The Regional Housing Needs Assessment (RHNA) is a tool for communities to use in land use planning, prioritizing local resource allocation, and deciding how to address identified existing and future housing needs resulting from population, employment, and household growth (SCAG 2020a). The RHNA is mandated by California state housing law as part of the periodic process of updating local housing elements of respective general plans (SCAG 2020a).

#### City of Riverside

As of 2018, there were 91,932 households in the City of Riverside (City of Riverside 2018). According to the U.S. Census Bureau, the City of Riverside’s persons-per-household ratio was 3.40 (U.S. Census Bureau 2017a). Approximately 64.4% of all City of Riverside households had three people or fewer; approximately 20% of households were single-person households; and approximately 21% of all households had five people or more (City of Riverside 2018). The median household income was \$62,460 (SCAG 2019a). The City of Riverside is projected to reach 118,600 households by 2040 (SCAG 2016). A summary of housing estimates and forecasts for the City of Riverside is provided in Table 3.12-2, Summary of Housing Estimates and Forecasts.

According to the 5<sup>th</sup> Cycle 2014 – 2021 RHNA Final Allocation Plan, the City of Riverside needs a total housing production of 8,283 housing units to accommodate the city’s population. The 8,283 housing units include 2,002 very low-income households, 1,336 low income households, 1,503 moderate income households, and 3,442 above moderate income households, and shown in Table 3.12-3, 5th Cycle Regional Housing Needs Assessment Final Allocation (SCAG 2012).

#### City of Colton

As of 2018, there are 16,393 households in the City of Colton (SCAG 2019b). From 2000 to 2018, the number of households in the City of Colton increased 1,873 units, or 12.9% (SCAG 2019b). According to the U.S. Census Bureau, City of Colton’s persons per household ratio was 3.29 (U.S. Census Bureau 2017a). In 2018, 65.1% of all city households had three people or fewer, approximately 20% of households were single-person households, and approximately 22% of all households in the city had five people or more (SCAG 2019b). The median household income is \$47,256 (SCAG 2019b). The City of Colton is forecasted to reach 20,800 households by 2040 (SCAG 2016). A summary of housing estimates and forecasts for the City of Colton is provided in Table 3.12-2, Summary of Housing Estimates and Forecasts.

City of Colton’s RHNA for the 2013–2021 planning period determined that a total housing production need of 1,923 housing units are needed to accommodate the city’s population, including 443 very low-income households, 302 low-income households, 347 moderate-income households, and 831 above moderate-income households (Table 3.12-3, 5th Cycle Regional Housing Needs Assessment Final Allocation).

Additionally, the City of Colton’s General Plan – Land Use Element (2013) planned for increased intensities to meet their 5<sup>th</sup> Cycle RHNA housing needs. In total, 21,204 dwelling units is projected to occur within the City of Colton with implementation of the land use policies established by the Land Use Element. Most of the new development is intended to occur within the Pellissier Ranch area and the West Valley Specific Plan area (City of Colton 2013).

**County of Riverside**

As of 2018, there were 729,920 households in Riverside County (SCAG 2019c). Between 2000 and 2018, the number of households increased by 223,702, or 44.2%. According to the U.S. Census Bureau, the County of Riverside’s persons per household ratio was 3.26 (U.S. Census Bureau 2017b). Approximately 65.8% of all Riverside County households had three people or fewer; 21% were single person households; and 20% had five people or more (SCAG 2019c). The median household income for Riverside County is \$60,607 (SCAG 2019c). Riverside County is forecasted to reach 1,019,300 households by 2040 (SCAG 2016).

According to the 5<sup>th</sup> Cycle 2014 – 2021, unincorporated County of Riverside needs a total housing production need of 30,303 housing units to meet their 5<sup>th</sup> Cycle RHNA housing needs. The 30,303 housing units include 7,173 very low-income households, 4,871 low income households, 5,534 moderate income households, and 12,725 above moderate income households (Table 3.12-3, 5th Cycle Regional Housing Needs Assessment Final Allocation).

A summary of housing estimates and forecasts for the County of Riverside is provided in Table 3.12-2, Summary of Housing Estimates and Forecasts.

**Table 3.12-2. Summary of Housing Estimates and Forecasts**

Name	2018 Housing Estimate	2040 Housing Forecast
<b>City</b>		
Riverside	91,932	118,600
Colton	16,393	20,800
<b>County</b>		
Riverside	729,920	1,019,300

Sources: City of Riverside 2018; SCAG 2019b, 2019c, 2019d; SCAG 2016.

3.12.1.3 Employment

Employment is projected to increase in the City of Riverside, the City of Colton, the County of Riverside, and the County of San Bernardino, as discussed below. The total job count includes wage and salary jobs, business owners, and self-employed persons. The total job count does not include unpaid volunteers or family workers, and private household workers.

### City of Riverside

In 2017, the City of Riverside had 148,353 jobs (SCAG 2019a). The education sector accounted for the majority of jobs, making up 27.9% of total jobs in the City of Riverside (SCAG 2019a). The City of Riverside is projected to reach 200,500 jobs by 2040 (SCAG 2016). The average salary per job is \$50,506, which is higher than the County of Riverside’s average salary of \$45,085 (SCAG 2019a).

### City of Colton

In 2017, the City of Colton had 19,124 jobs (SCAG 2019b). Similar to the City of Riverside, the education sector accounted for the most jobs at 36.9% of total jobs in the City of Colton (SCAG 2019b). The City of Colton is projected to reach 29,200 jobs by 2040 (SCAG 2016). In 2017, the average salary per job was \$47,595, which is higher than the County of San Bernardino’s average salary of \$46,339 (SCAG 2019b).

### County of Riverside

In 2017, the County of Riverside had 762,114 jobs (SCAG 2019c). The education sector accounted for the majority of jobs in the County, which is approximately 19% of all jobs (SCAG 2019c). The County of Riverside is projected to reach 1,156,300 jobs by 2040 (SCAG 2016). In 2017, the average salary per job was \$45,085 (SCAG 2019c).

## 3.12.2 Relevant Plans, Policies, and Ordinances

### Federal

There are no applicable federal policies or regulations related to housing and population.

### State

#### ***Government Code Section 65580 et seq.***

Government Code Article 10.6. Housing Elements, Section 65580, declares that the availability of housing is of vital statewide importance, and the early attainment of decent housing and a suitable living environment for every Californian, including farmworkers, is a priority of the highest order. Governments and private sectors should work cooperatively to expand housing opportunities and accommodate housing needs in California. Furthermore, designating and maintaining a supply of land and adequate sites suitable, feasible, and available for the development of housing sufficient to meet the locality’s housing need for all income levels is essential to achieving the state’s housing goals and the purposes of this article.

#### ***Regional Housing Needs Assessment***

The Regional Housing Needs Assessment (RHNA) quantifies the need for housing within each jurisdiction. The purpose of the RHNA within the SCAG region is to:

1. Increase the housing supply and mix of housing types, tenure, and affordability in an equitable manner;
2. Promote infill development and socioeconomic equity and encouragement of efficient development patterns;
3. Promote an improve intraregional relationship between jobs and housing; and
4. Allocate a low proportion of housing need to an income category when a jurisdiction already has a disproportionately high share compared to the countywide distribution (SCAG 2012a).

This RHNA cycle covers the housing needs from October 2013 to October 2021. SCAG updates the RHNA every eight years, and the 6th Cycle RHNA allocation plan will cover from October 2021 through October 2029 (SCAG 2020b). The 6th Cycle RHNA allocation plan will be adopted October 2020 (SCAG 2020b). The 6th Cycle RHNA allocation plans for a total housing production need of 18,000 for the City of Riverside. Table 3.12-3, 5th Cycle Regional Housing Needs Assessment Final Allocation, details the allocated housing needs assessment for the City of Riverside, the City of Colton, and the County of Riverside.

**Table 3.12-3. 5th Cycle Regional Housing Needs Assessment Final Allocation**

Area	Number of Very Low Income Household	Number of Low Income Households	Number of Moderate Income Households	Number Above Moderate Income Households	Total
City of Riverside	2,002	1,336	1,503	3,442	8,283
City of Colton	443	302	347	831	1,923
County of Riverside	7,173	4,871	5,534	12,725	30,303

Source: SCAG 2012a.

***Regional Transportation Plan and Sustainable Communities Strategy (2012–2035)***

The RTP/SCS was adopted April 2012. The RTP/SCS for the SCAG region envisions a commitment to reducing emissions from transportation sources, improving public health, and increasing mobility for the region’s residents and visitors (SCAG 2012b). The RTP/SCS report expects growth in the mainly suburban inland counties of Riverside and San Bernardino, which, if left unchecked, would lead to an imbalance of jobs and housing. The potential for job and house imbalances could lead to increase of travel, which would contribute to transportation and air quality issues.

**Local**

***City of Riverside***

***City of Riverside Municipal Code, Article VIII, Chapter 19.545 – Density Bonus***

According to the City of Riverside Municipal Code, Article VIII, Chapter 19.545, housing developers can enter a density bonus agreement, which would allow developers to build more units than zoned for on the condition that some units would be designated as affordable units. Regulations for new residential construction state that a minimum of 10% of total units would be restricted and affordable to low-income households; a minimum of 5% of total units would be restricted and affordable to very low-income households; and a minimum of 10% of total dwelling units be reserved for persons and families of moderate income.

***City of Riverside General Plan 2025 – Land Use and Urban Design Element***

The City of Riverside’s General Plan 2025 – Land Use and Urban Design Element was amended in August 2019 (City of Riverside 2019). This element describes present and planned land uses and their relationship to the City of Riverside’s goals. As described earlier, the City of Riverside is projected to increase in population, homes, and employment. These objectives and policies would allow for manageable smart growth within the City of Riverside and are applicable to the Northside Specific Plan.

**Objective LU-8** Emphasize smart growth principles through all steps of the land development process.

**Policy LU-8.3** Allow for mixed-use development at varying intensities at selected areas as a means of revitalizing underutilized urban parcels.

**Objective LU-30** Establish Riverside’s neighborhoods as the fundamental building blocks of the overall community, utilizing Neighborhood and Specific Plans to provide a more detailed design and policy direction for development projects located in particular neighborhoods.

**Objective LU-55** Make Hunter Industrial Park into a major employment center by creating a high quality business park environment that will attract private sector investment and encourage partnerships with regional educational institutions.

**Policy LU-55.1** Recognize different development standards for technology park development, emphasizing high-tech infrastructure and the potential for flexible re-use of buildings.

### City of Riverside General Plan 2025 – Housing Element

The City of Riverside’s General Plan 2025 – Housing Element was amended on June 19, 2018 (City of Riverside 2018). This element provides objectives, policies, and programs to facilitate the development, improvement, and preservation of housing in the City of Riverside as it continues to grow in population. The following policies and objectives are relevant to the Northside Specific Plan.

**Objective H-1** To provide livable neighborhoods evidenced by well-maintained housing, ample public services, and open space that provide a high quality living environment and instill community pride.

**Policy H-1.1** Housing Conditions. Promote the repair, improvement, and rehabilitation of housing to enhance quality of life, strengthen neighborhood identity, and instill community pride.

**Policy H-1.2** Code Enforcement. Maintain and improve the quality of rental and ownership housing through adoption and enforcement of housing and property maintenance standards and involvement.

**Policy H-1.3** Historic Preservation. Facilitate and encourage the preservation and restoration of residential structures possessing historical or architectural merit and preserve and protect the historic districts and neighborhood conservation areas.

**Policy H-1.4** Parks and Recreation. Enhance neighborhood livability and sustainability by providing parks and open spaces, planting trees, greening parkways, and maintain a continuous pattern of paths that encourage an active, healthy lifestyle.

**Policy H-1.5** Public Facilities and Infrastructure. Provide quality community facilities, physical infrastructure, traffic management, public safety, and other public services to promote and improve the livability, safety, and vitality of residential neighborhoods.

- Policy H-1.6** Neighborhood Identity: Maintain and strengthen programs that ensure each neighborhood has a unique community image that is incorporated and reflected in its housing, public facilities, streetscapes, signage, and entryways.
- Policy H-1.7** Neighborhood Involvement. Encourage active and informed participation in neighborhood organizations to help identify local needs and implement programs aimed at the beautification, improvement, and preservation of neighborhoods.
- Policy H-1.8** Neighborhood Livability. Enhance and preserve the character and neighborhood livability of existing single-family neighborhoods in proximity to major college campuses while working with college campuses to identify affordable housing options for students on and off campus.
- Objective H-2** To provide adequate diversity in housing types and affordability levels to accommodate housing needs of Riverside residents, encourage economic development and sustainability, and promote an inclusive community.
- Policy H-2.2** Smart Growth. Encourage the production and concentration of quality mixed-use and high density housing along major corridors and infill sites throughout the City in accordance with smart growth principles articulated in the General Plan.
- Policy H-2.3** Housing Design. Require excellence in the design of housing through the use of materials and colors, building treatments, landscaping, open space, parking, sustainable concepts, and environmentally sensitive building and design practices.
- Policy H-2.4** Housing Diversity. Provide development standards and incentives to facilitate live-work housing, mixed-use projects, accessory dwellings, student housing, and other housing types.
- Policy H-2.5** Entitlement Process: Provide flexible entitlement processes that facilitate innovative and imaginative housing solutions, yet balance the need for developer certainty in the approval process, governmental regulation, and oversight.
- Policy H-2.6** Collaborative Partnerships. Seek, support, and strengthen collaborative partnerships of nonprofit organizations, the development community, and local government to aid in the production of affordable and market rate of housing.
- Policy H-2.7** Housing Incentives. Facilitate the development of market rate and affordable housing through the provision of regulatory concessions and financial incentives, where feasible and appropriate.

**Objective H-3** To increase and improve opportunities for low and moderate income residents to rent or purchase homes.

**Policy H-3.1** Homeownership Assistance. Support and provide, where feasible, homeownership assistance for lower and moderate income households through the provision of financial assistance, education, and collaborative partnerships.

**Policy H-3.2** Homeownership Preservation. Aggressively work with governmental entities, nonprofits, and other stakeholders to educate residents and provide assistance, where feasible, to reduce the number of foreclosures in the community.

**Policy H-3.3** Rental Assistance. Support the provision of rental assistance to extremely low, low, and very low income households, including emergency rental assistance for those in greatest need.

**Policy H-3.4** Preservation of Affordable Housing. Assist in the preservation of affordable rental housing at risk of conservation by working with interested parties, offering financial incentives, and providing technical assistance, as feasible and appropriate.

**Policy H-3.5** Collaborative Partnerships. Collaborate and/or facilitate collaborative with nonprofit organizations, developers, the business community, special interest groups, and state and federal agencies to provide housing assistance.

**Policy H-3.6** Community Services. Support the provision of employment training, childcare services, rental assistance, youth services, and other community services for each neighborhood that enable households to attain the greatest level of self-sufficiency and independence.

**Policy H-3.7** Fair Housing. Prohibit discrimination and enforce fair housing law in all aspects of the building, financing, sale, rental, or occupancy of housing based on protected status in accordance with state or federal fair housing law.

**Objective H-4** To provide adequate housing and supportive services for Riverside residents with special needs that allow for them to live fuller lives.

**Policy H-4.1** Senior Housing. Support the development of accessible and affordable senior rental and ownership housing that is readily accessible to support services; and provide assistance for seniors to maintain and improve their homes.

**Policy H-4.2** Family Housing. Facilitate and encourage the development of larger rental and ownership units appropriate for families with children, including the provision of supportive services such as child care.

- Policy H-4.3** Educational Housing. Work in cooperation with educational institutions to encourage the provisions of housing accommodations for students, faculty, and employees that reflect their housing needs.
- Policy H-4.4** Housing for Homeless People. Support adequate opportunities for emergency, transitional, and permanent supportive housing through the implementation of land use and zoning practices and, where feasible, financial assistance.
- Policy H-4.5** Housing for People with Disabilities. Increase the supply of permanent, affordable, and accessible housing suited to the needs of persons with disabilities; provide assistance to persons with disabilities to maintain and improve their homes.
- Policy H-4.6** Supportive Services. Continue to fund the provision of supportive services for persons with special needs to further the greatest level of independence and equal housing opportunities.

### ***City of Colton***

#### **City of Colton Municipal Code, Title 18, Chapter 18.48.170 – Density Bonus**

The density bonus code for the City of Colton provides incentives for the production of housing for very low-income, lower-income, moderate income, special needs, and senior households. The state density bonus law shall apply to residential components of a mixed use project. Eligibility of a project to entire a density bonus agreement and other details are found in Title 18, Chapter 18.48.170 of the City of Colton’s Municipal Code.

#### **City of Colton General Plan – Land Use Element (2013)**

The City of Colton’s General Plan – Land Use Element discusses objectives and policies that would guide the City of Colton’s development that would respect the city’s heritage, protect existing neighborhoods, provide opportunities for diverse businesses, and promote high quality design. The following goals and policies are relevant to the Northside Specific Plan.

The City of Colton’s General Plan – Land Use Element identifies the Pellissier Ranch/La Loma Hills area as a “Planning Focus Area”, and states that it “envisions [Pellissier Ranch] as a riverfront community consisting of low density and medium-density housing, schools and parks, trails, community facilities, and a commercial area serving the neighborhood. As mentioned earlier, the City of Colton’s General Plan – Land Use Element (2013) planned for increased intensities to meet their 5<sup>th</sup> Cycle RHNA housing needs. In total, 21,204 dwelling units is projected to occur within the City of Colton with implementation of the land use policies established by the Land Use Element. Most of the new development is intended to occur within the Pellissier Ranch area and the West Valley Specific Plan area (City of Colton 2013).

**Goal LU-1** Achieve a balance of land use types that create diverse opportunities for housing, employment, commerce, recreation, and civic engagement.

**Policy LU-1.1** Ensure that all new development conforms to all applicable provisions of the General Plan and Zoning Code.

- Policy LU-1.5** Encourage the assemblage of small lots to create more cohesive development sites.
- Policy LU-1.6** Ensure that new development projects are compatible with permitted, well-maintained uses and buildings in the surrounding neighborhood or district.
- Policy LU-1.7** Require that new development assume the full fair-share cost of public maintained uses and buildings in the surrounding neighborhood or district.
- Policy LU-1.10** Require that Crime Prevention through Environmental Design (CPTED) approaches be used in the design and development of all new projects and substantial remodeling projects.
- Goal LU-2** Create great places in Colton through use of high-quality streetscapes and design requirements.
  - Policy LU-2.3** Apply rigorous and transparent design review practices to all development applications.
- Goal LU-3** Ensure a strong and diversified economic base to provide for fiscal stability and sustainability.
  - Policy LU-3.1** Provide for land uses for land uses that allow a variety of retail, service, manufacturing, institutional, office, and recreational businesses to locate in Colton.
  - Policy LU-3.2** Retain industrial land for businesses that provide jobs for manufacturing and processing of goods, and that create local revenue sources.
- Goal LU-4** Incorporate green building and other sustainable building practices into development projects.
  - Policy LU-4.1** Require that new development projects reflect the principles of Traditional Neighborhood Development: walkable street patterns, pedestrian amenities, access to transit, and a mix of complementary uses, comfortable and accessible open spaces, a range of housing types and densities, and quality design.
  - Policy LU-4.2** Facilitate the use of green building standards and Leadership in Energy and Environmental Design (LEED) or similar programs in both private and public projects.
  - Policy LU-4.3** Promote sustainable building practices that go beyond the requirements of Title 24 of the California Administrative Code, and encourage energy-efficient design elements.

- Policy LU-4.4** Support sustainable building practices that integrate building materials and methods that promote environmental quality, economic vitality, and social benefit through the design, construction, and operation of the built environment.
- Policy LU-4.5** Promote adaptive reuse of existing buildings as an alternative to new construction.
- Policy LU-4.6** Require that land divisions and development projects incorporate designs and practices that respect natural site features and provide for groundwater recharge.
- Goal LU-5** Reduce use of energy resources citywide, with a key goal of reducing the City's carbon footprint.
- Policy LU-5.1** Require the incorporation of energy conservation features into the design of all new construction and site development, as required by State law and local regulations.
- Policy LU-5.6** Require detailed air quality and climate change analyses for all applications that have the potential to adversely affect air quality, and incorporate the analyses into applicable CEQA documents. Projects with the potential to generate significant levels of air pollutions and greenhouse gases, such as manufacturing facilities and site development operations, shall be required to incorporate mitigation into their design and operations, and to utilize the most advanced technological methods feasible.
- Goal LU-6** Minimize or eliminate land use conflicts where residences are in close proximity to rail lines, freeways, and industrial businesses.
- Policy LU-6.4** Promote the use of buildings, setbacks, walls, landscaping, and other design features to buffer and reduce conflicts between adjacent properties.
- Goal LU-7** Provide opportunities for all neighborhoods in Colton to be in a healthy and attractive physical condition.
- Goal LU-8** Create new attractive residential neighborhoods throughout Colton that provide a range of quality housing.
- Policy LU-8.1** Consider the maximum densities set forth for each of the residential land use designations as maximums that can only be achieved by those developments that exhibit the highest design quality and provide definable community benefit.

- Policy LU-8.2** Require that all the architectural design and scale of new residential developments respect and enhance the character of established neighborhoods.
- Policy LU-8.3** Encourage the provision of a range of housing types and sizes to accommodate the varied needs of all socioeconomic segments of the community.
- Policy LU-8.5** Avoid residential development in environmentally sensitive or hazardous areas unless mitigating measures are adequately implemented.
- Policy LU-8.6** Require that multi-family residential development and major subdivisions include amenities such as common open space or community facilities.
- Policy LU-8.7** Establish a density bonus program to incentivize well-designed, affordable housing developments with appropriate amenities in multiple-family zones areas.
- Goal LU-9** Maintain a diverse mix of commercial uses that benefit the community in terms of needed commercial services, tax revenue, and employment opportunities.
- Policy LU-9.3** Encourage a unified architectural character in commercial areas, and vigorously enforce commercial land use standards, including but not limited to landscaping, signage, and property maintenance to enhance the visual appearance of the City’s commercial areas.
- Policy LU-9.8** Diversify the types of commercial uses available in Colton to ensure the city’s fiscal well-being. Create a balanced mix of restaurants and retail stores that offer a varied selection of dining and shopping opportunities.
- Goal LU-10** Create new mixed-use, walkable districts that are great places to live and exciting destinations.
- Policy LU-10.4** Establish land use patterns and provide pedestrian amenities within the mixed-use districts that minimize the need for vehicle travel among the uses within a district.
- Goal LU-11** Achieve and maintain a strong and highly competitive industrial base that provides attractive, high-quality developments and varied employment opportunities.
- Policy LU-11.3** Increase and diversify local employment opportunities, and retain and accommodate industrial development that is compatible with City objectives for safety, environmental and visual quality, and employment and revenue generation.

**Goal LU-21** Create a residential neighborhood in the Pellissier Ranch/La Loma Hills area that consists largely of low-density or clustered residential development, with support neighborhood commercial uses, open space, and compatible uses that complement the natural landscape, the Santa Ana River, and the La Loma Hills.

**Policy LU-21.1** Allow for a diverse housing mix that is compatible to the hillsides area.

**Policy LU-21.2** Allow residential density transfer to limit residential development on hillsides and transfer residential units to flatter land areas.

**Policy LU-21.3** Provide adequate public, community, and educational facilities to meet residential needs.

**Policy LU-21.6** Base allowable densities and intensities on infrastructure capacity, landform, and other physical constraints.

**Policy LU-21.11** Allow for continued operation of industrial businesses along Center Street and the County line, and require that the new development projects provide enhanced design detail and infrastructure improvements consistent with the Circulation Element and the Capital Improvement Program.

### City of Colton General Plan – Housing Element (2013-2021)

The City of Colton’s General Plan – Housing Element provides policies and objectives that would improve the city’s overall housing conditions, improve the existing affordable housing stock, identify sites to be developed, and address and potentially remove constraints to maintenance, improvement, and development of quality housing (City of Colton 2014). The following goals and policies are relevant to the Northside Specific Plan.

Program 11 of the City of Colton’s General Plan – Housing Element, states that the City of Colton would continue to implement the Zoning Code and development standards to encourage higher-density development where supported by land use policies and to allow flexibility within City of Colton standards and regulations to encourage a variety of housing types. Program 13 of the City of Colton’s General Plan – Housing Element states that the City of Colton would actively seek partnerships and/or developers that would lead to the development of housing for extremely-low-income and special needs households.

In Appendix D of the City of Colton’s General Plan – Housing Element, approximately 12.9 acres of Pellissier Ranch and the La Loma Hills Area was identified as a vacant site with potential for affordable housing development. With its land use designations, the site could yield 257 units at the assume density of 20 units/acre.

**Goal H-1** Provide opportunities for the development of quality housing for households at and above the median income – housing that does not currently exist in the City in sufficient quantities.

**Policy H-1.1** Through appropriate zoning and development standards, facilitate moderate- and above-moderate-income housing in the Hub City Centre Specific Plan Area.

- Policy H-1.2** Require high-quality construction and amenities through the establishment and enforcement of modern development standards and comprehensive residential design guidelines.
- Goal H-2** Enhance the existing viable housing stock as a source of low- and moderate-income housing for Colton residents and as an integral part of the community character.
- Policy H-2.1** Enforce adopted code requirements that set forth acceptable health and safety standards for the occupancy of existing housing.
- Policy H-2.2** Utilize Code Compliance and the City’s Building Official to bring substandard units into compliance with City codes and to improve overall housing conditions in Colton.
- Policy H-2.3** Continue to facilitate access to rehabilitation programs that provide financial and technical assistance to low- and moderate-income households for the repair and rehabilitation of existing housing with substandard conditions.
- Policy H-2.4** Facilitate the removal of existing housing, including illegal, non-conforming, and blighted properties, that poses serious health and safety hazards to residents and adjacent structures.
- Policy H-2.5** Assist the preservation of all units at risk of converting from affordable housing to market rate.
- Goal H-3** Create opportunities for the development of new housing that responds to all economic segments of the community.
- Policy H-3.1** Allow for densities up to 30 units per acre as set forth in the Residential Overlay designation and Mixed-Use: Downtown area.
- Policy H-3.2** Use density bonuses and other incentives to facilitate the development of new higher-density housing that is affordable to lower-income households.
- Policy H-3.3** Form collaborative partnerships with non-profit agencies and for-profit developers to maximize resources available for the provision of housing affordable to lower-income household.
- Policy H-3.4** Address the housing needs of special populations and extremely low-income households through emergency shelters, transitional housing, supportive housing, and single-room occupancy units.

**Goal H-4** Provide suitable sites for housing development which can accommodate a range of housing by type, size, location, price, and tenure.

**Policy H-4.1** Implement land use policies that allow for a range of residential densities and products, including low-density single-family uses, moderate-density townhomes, and higher-density apartments, condominiums, and units in mixed-use developments.

**Policy H-4.2** Encourage development of residential uses in strategic proximity to employment, recreational facilities, schools, neighborhood, commercial areas, and transportation routes.

**Policy H-4.3** Encourage compatible residential development in areas where land use policies support higher densities.

**Policy H-4.4** Allow flexibility in the City’s standards and regulations to encourage a variety of housing types.

**Goal H-7** Promote and encourage sustainable development and green building practices for all new residential development and for the retrofitting of existing housing.

**Policy H-7.2** Encourage water- and energy-efficient appliances and features for new residential development encourage water- and energy-efficient retrofitting improvements for existing residential homes.

**Policy H-7.4** Provide initiatives to increase the use of solar energy and utilize passive solar design to increase energy conservation.

### ***County of Riverside***

#### **County of Riverside General Plan – Land Use Element**

As discussed earlier, the County of Riverside is projected to increase in population, housing, and employment (SCAG 2016). The County of Riverside General Plan – Land Use Element serves as a guide to planners, the general public, and decision makers as to the future pattern of development in the County of Riverside. A small portion of unincorporated County of Riverside falls within the Northside Specific Plan’s SPA. The following policies are relevant to the Northside Specific Plan.

**Policy LU 1.2** Encourage existing non-conforming uses to transition into conformance with the new land use designation and/or policy.

**Policy LU 1.3** The County will notify city planning departments about new proposed discretionary projects that are located adjacent to cities or within their sphere of influence, with sufficient advance notice to allow for City-County coordination and city comments at public hearings. The County is willing to consider entering into intergovernmental agreements with cities and other governmental entities to address matters of mutual concern relating to land use, infrastructure, the environment, and other subjects

related to development activity in both the county and the cities or other governmental entities.

- Policy LU 5.1** Ensure that development does not exceed the ability to adequately provide supporting infrastructure and services, such as libraries, recreational facilities, educational and day care centers, transportation systems, and fire/police/medical services.
- Policy LU 5.4:** Ensure that development and conservation land uses do not infringe upon existing essential public facilities and public utility corridors, which include county regional landfills, fee owned rights-of-way and permanent easements, whose true land use is that of public facilities. This policy will ensure that the public facilities designation governs over what otherwise may be inferred by the large-scale general plan maps.
- Policy LU 7.1** Require land uses to develop in accordance with the General Plan and area plans to ensure compatibility and minimize impacts.
- Policy LU 7.3** Consider the positive characteristics and unique features of the project site and surrounding community during the design and development process.
- Policy LU 7.4** Retain and enhance the integrity of existing residential, employment, agricultural, and open space areas by protecting them from encroachment of land uses that would result in impacts from noise, noxious fumes, glare, shadowing, and traffic.
- Policy LU 8.5** Stimulate cooperative arrangements with adjacent cities, counties, regions, and states where programs and projects of mutual benefit can be undertaken.
- Policy LU 11.1** Provide sufficient commercial and industrial development opportunities in order to increase local employment levels and thereby minimize long-distance commuting.
- Policy LU 28.1** Accommodate the development of single- and multi-family residential units in areas appropriately designated by the General Plan and area plan land use maps.
- Policy LU 28.2** Accommodate higher density residential development near community centers, transportation centers, employment, and services areas.
- Policy LU 28.4** Accommodate the development of a variety of housing types, styles and densities that are accessible to and meet the needs of a range of lifestyles, physical abilities, and income levels.
- Policy LU 28.10** Require that residential units/projects be designed to consider their surroundings and to visually enhance, not degrade, the character of the immediate area.

### **County of Riverside General Plan – Housing Element**

The County of Riverside’s General Plan – Housing Element identifies and establishes goals and policies to meet the need of existing and future residents (County of Riverside 2017). The following policies are relevant to the Northside Specific Plan.

- Policy 1.1** Encourage housing developers to produce affordable units by providing assistance and incentives for projects that include new affordable units available to lower/moderate income households or special needs housing.
  
- Policy 1.7** Encourage innovative housing, site plan design, and construction techniques to promote new affordable housing by the private sector.
  
- Policy 2.2** Enhance the quality of existing residential neighborhoods by including adequate maintenance of public facilities in the County’s capital improvement program and requiring residents and landlords to maintain their properties in good condition.

### 3.12.3 Thresholds of Significance

The significance criteria used to evaluate the project impacts to population and housing are based on CEQA Guidelines Appendix G. According to Appendix G, a significant impact related to population and housing would occur if the project would:

1. Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure).
2. Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere.

### 3.12.4 Impacts Analysis

***Would the project induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?***

**Less-than-Significant Impact.** The Northside Specific Plan would allow for a substantial amount of growth in both the near-term and buildout (Year 2040) conditions. However, such growth would be consistent with the planned growth for the region. As discussed further below, population growth impacts would be less than significant.

#### **Near-Term**

The Regional Housing Needs Assessment (RHNA) 5<sup>th</sup> Cycle allocated a housing production need number to the City of Riverside, the City of Colton, and the County of Riverside to meet their housing needs in the midst of California’s housing crisis. As indicated in Table 3.12-3, 5<sup>th</sup> Cycle Regional Housing Needs Assessment Final Allocation (SCAG 2016), the City of Riverside needs a total housing production need of 8,283 housing units, the City of Colton needs a total of 1,923 housing units, and the unincorporated regions of County of Riverside needs a total of 30,303 housing units over the next 7 years.

As shown in Table 2-4, Near-term Land Use Scenarios, in Chapter 2, the near-term buildout of Scenario 1 would generate 5,383 residential units and 5.2 million square feet of employment uses. Scenario 2 would generate 4,078 residential uses and 10.4 million square feet of employment uses. In addition, the Northside Specific Plan also includes a Transition Zone Overlay that allows for the continuation of the existing base zone until the market allows for redevelopment to occur in accordance with the Northside Specific Plan land use designation (see Table 2-3). Overall, these near-term buildout conditions would allow for the flexibility for development to occur in coordination with the market and population changes. As such, the Northside Specific Plan is intended to be growth-accommodating, and would ultimately be consistent with the current cycle of the RHNA. Near-term changes in population would be consistent with the RHNA and associated planned growth, and impacts would be less than significant.

While the RHNA 6th Cycle (October 2021 through October 2029) is currently underway, it is noted that the current proposed methodology as of February 14, 2020 identifies a need for 18,419 units in the City of Riverside, 2,918 units in the City of Colton, and 40,765 units for the unincorporated County of Riverside (SCAG 2020b). As such, the housing needs within the region are expected to continue to increase. Thus, the near-term development allowed under the Northside Specific Plan would assist jurisdictions in increasing housing pursuant to the anticipated future RHNA goals as well.

**Build-out (Year 2040)**

The Northside Specific Plan would directly result in a substantial amount of growth in the SPA over the long-term. Under the buildout (Year 2040) conditions, the Northside Specific Plan would allow the buildout of 11,260 to 13,112 dwelling units. Considering the existing dwelling units (approximately 5,247 existing dwelling units), the Northside Specific Plan would allow for an additional 6,013 to 7,865 dwelling units. This includes an additional 4,854 to 6,072 dwelling units in the City of Riverside, an additional 900 to 1,400 dwelling units in the City of Colton, and an additional 259 to 393 dwelling units in unincorporated County of Riverside. These numbers are reflected in Table 3.12-4, Estimated Population Increase with Northside SPA Buildout.

**Table 3.12-4. Estimated Population Increase with Northside SPA Buildout Year 2040**

Jurisdiction	Persons per DU ratio	Existing Dwelling Units	Proposed Dwelling Units (Minimum)	Proposed Dwelling Units (Maximum)	Difference (New Development) (Minimum)	Difference (New Development) (Maximum)	Estimated Population Increase (Minimum)	Estimated Population Increase (Maximum)
City of Riverside	3.40	4,941	9,795	11,013	4,854	6,072	16,504	20,645
City of Colton	3.29	6	906	1,406	900	1,400	2,961	4,606
County of Riverside	3.26	300	559	693	259	393	845	1,282
<b>Total</b>		<b>5,247</b>	<b>11,260</b>	<b>13,112</b>	<b>6,013</b>	<b>7,865</b>	<b>20,310</b>	<b>26,533</b>

Source: U.S. Census Bureau 2017a, 2017b.

As discussed in Section 3.12.1.2, Housing, the City of Riverside has a ratio of 3.40 persons per dwelling unit, the City of Colton has a ratio of 3.29 persons per dwelling unit, and the County of Riverside has a ratio of 3.26 persons per dwelling unit (U.S. Census Bureau 2017a, b). Based on these ratios, implementation of the Northside Specific Plan would have the potential to increase the population in the City of Riverside portion of the SPA by an estimated 16,504 to 20,645 people. The population in the City of Colton’s portion of the SPA is projected to

increase by an estimated 2,961 to 4,606 people. The population in the County of Riverside portion of the SPA is projected to increase by an estimated 845 to 1,282 people. The total number of dwelling units within the SPA would increase by 6,013 to 7,865 dwelling units. The total estimated population increase within the SPA would be 20,310 to 26,533 persons (Table 3.12-4).

The Northside Specific Plan also includes a Residential Overlay (R-O) zone over Subarea 2 that would allow for additional residential development if the future growth warrants it. As indicated in Table 2-3, this R-O would allow for an additional 2,430 residential units within the City of Colton. This additional 2,430 potential units would allow a potential increase of 7,995 people.

In addition to direct increases in residential uses, the Northside Specific Plan would also provide employment-generating uses that could indirectly generate population. As discussed in Table 2-3, Specific Plan Allowed Land Use, implementation of the Northside Specific Plan would establish approximately 16.6 million square feet of land use designations appropriate for employment hubs (Commercial, Industrial, Public Facilities, Trujillo Adobe Heritage Village, and Business/Office Park). These employment-generating land use designations are intended to support the proposed residential uses. As such, these uses are not expected to result in an indirect increase of population within the SPA. Thus, the analysis below focuses on the Northside Specific Plan's direct generation of housing.

The Northside Specific Plan estimated increased in population at full build out is within what is forecasted in SCAG's 2016 Regional Transportation Plan (RTP) for the City of Riverside, City of Colton, and the County of Riverside. As shown in Table 3.12-1, Current and Forecasted Populations, the City of Riverside has a population of 330,063 people. The City of Riverside is forecasted to have a population of 386,600 by 2040 (SCAG 2016). This represents a forecasted growth of 53,537 people within the City of Riverside. At build out year 2040, the Northside Specific Plan is projected to increase the population within the City of Riverside by 20,645 people (Table 3.12-4, Estimated Population Increase with Northside SPA Buildout), which would be aligned with SCAG's growth forecasts for this jurisdiction. Thus, the proposed growth allowed by the Northside Specific Plan would not constitute unplanned growth within the City of Riverside, and impacts would be less than significant.

The County of Riverside has a population of 2,415,954, as of 2018 (Table 3.12-1, Current and Forecasted Populations). The County of Riverside is forecasted to have a population of 3,183,700 by 2040 (SCAG 2016). This represents a forecasted growth of 767,746 people within the County of Riverside. At full build-out, the Northside Specific Plan is anticipated to increase the population in unincorporated regions of the County of Riverside by 1,282 people and increase the population of the City of Riverside by 20,645 people (Table 3.12-4, Estimated Population Increase within Northside SPA Buildout). The projected population increase from the Northside Specific Plan would be aligned with SCAG's growth forecasts for this jurisdiction and would not induce substantial unplanned population growth to the region. Thus, the proposed growth allowed by the Northside Specific Plan would not constitute unplanned growth within the County of Riverside, and impacts would be less than significant.

The City of Colton has a population of 54,828, as of 2018 (Table 3.12-1, Current and Forecasted Populations). The City of Colton is forecasted to have a population of 69,100 by 2040 (SCAG 2016). This represents a forecasted growth of 14,272 people within the City of Colton. At full build-out, the Northside Specific Plan is projected to increase the population in the City of Colton by 4,606 people (Table 3.12-4, Estimated Population Increase within Northside SPA Buildout). With the R-O, the total potential population increase would be 12,601 people. The projected population increase from the Northside Specific Plan would be aligned with SCAG's growth forecasts for this jurisdiction and would not induce substantial unplanned population growth to the City of Colton.

Thus, the proposed growth allowed by the Northside Specific Plan would not constitute unplanned growth within the City of Colton, and impacts would be less than significant.

Additionally, the City of Colton General Plan specifically identified the northern SPA area (Subarea 1 and 2) for future development and growth. The City of Colton's General Plan – Land Use Element has a horizon year of 2030 and was adopted in 2013 (City of Colton 2013). The City of Colton's General Plan – Land Use Element projected an increase of 21,204 dwelling units with implementation of the Land Use Elements' policies. Using the 3.29 persons per dwelling unit ratio, this would result in the increase of approximately 70,000 people. It was also stated that the majority of the new development is intended to occur within the Pellissier Ranch area and the West Valley Specific Plan area (City of Colton 2013). The City of Colton's Land Use Element identifies Pellissier Ranch and La Loma Hills area as the "largest remaining developable area in Colton" (City of Colton 2013). The City of Colton also "envisions this area as a riverfront community consisting of low-density and medium-density housing, schools and parks, trails, community facilities, and a commercial area serving the neighborhood" (City of Colton 2013). The Northside Specific Plan would designate Pellissier Ranch with high density residential, commercial, industrial, and recreational land uses, similar to what is envisioned.

The City of Colton's housing programs from their General Plan's Housing Element indicates that they would continue to implement zoning codes and development standards to encourage higher-density development where supported by land use policies (Program 11), and that the City of Colton would actively seek partnerships and/or developers for housing development (Program 13) (City of Colton 2014). Appendix D of the aforementioned Housing Element identified an approximately 13 acre vacant site on Pellissier Ranch and La Loma Hills as a potential site for affordable housing development of approximately 257 units, assuming a density of 20 units/acre.

Overall, the Northside Specific Plan would be aligned with the dwelling units and increased population as projected in each jurisdiction. Therefore, the project would not induce unplanned substantial population growth to the area and impacts would be less than significant.

***Would the project displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?***

**Less-than-Significant Impact.** According to Figure 2-5, Existing General Land Uses, and Figure 2-6, Proposed Specific Plan Land Uses, the Northside Specific Plan would retain all the Medium Density Residential (MDR) areas and other residential areas within the SPA boundary, and would convert nonresidential land uses (i.e., Business/Office Parks, Light Industrial) to residential land uses. The Northside Specific Plan would not displace a substantial number of existing people or housing, and would instead increase housing as discussed above. Therefore, the Northside Specific Plan would have a less-than-significant impact.

### 3.12.5 Mitigation Measures

No mitigation measures required.

### 3.12.6 Level of Significance After Mitigation

All potential threshold impacts are less than significant. Therefore, no mitigation is required.