# 4.8 HISTORIC AND ARCHAEOLOGICAL RESOURCES

The analysis in this Subsection is based on a site-specific cultural resources assessment report titled "A Phase I and II Cultural Resources Assessment for the Nichols Ranch Specific Plan Project" (dated April 28, 2018). The report was prepared by Brian F. Smith and Associates (BFSA) and is included as *Technical Appendix H* to this EIR. All references used in this Subsection are included in EIR Section 7.0, *References*. Confidential information has been redacted from *Technical Appendix H* for purposes of public review. In addition, much of the written and oral communication between Native American tribes, the City of Lake Elsinore, and BFSA is considered confidential in respect to places that have traditional tribal cultural significance (Gov. Code § 65352.4), and although relied upon in part to inform the preparation of this EIR Subsection, those communications are treated as confidential and are not available for public review. Under existing law, environmental documents must not include information about the location of archaeological sites or sacred lands or any other information that is exempt from public disclosure pursuant to the Public Records Act (Cal. Code Regs. § 15120(d)).

## 4.8.1 EXISTING CONDITIONS

### *A. Prehistoric and Historic Setting*

#### *1. Prehistoric Period Setting*

The Project site is located in the northeastern portion of the City of Lake Elsinore in western Riverside County. The Paleo Indian, Archaic Period Milling Stone Horizon, and the Late Prehistoric Shoshonean groups are the three general cultural periods represented in Riverside County, as summarized briefly below. The following discussion of the cultural history of Riverside County references the San Dieguito Complex, Encinitas Tradition, Milling Stone Horizon, La Jolla Complex, Pauma Complex, and San Luis Rey Complex, since these culture sequences have been used to describe archaeological manifestations in the region. The Late Prehistoric component present in the Riverside County area was represented by the Cahuilla, Gabrielino, and Luiseño Indians. (BFSA, 2018, p. 2.0-5) Refer to Section 2.3 of the Project's cultural resources assessment (*Technical Appendix H*) for a more detailed discussion about the prehistoric cultural periods in Riverside County.

- Late Pleistocene/Paleo Indian Period (11,500 to circa 9,000 Years Before Present [YBP]). The Paleo Indian Period is associated with the terminus of the late Pleistocene (12,000 to 10,000 YBP). The environment during the late Pleistocene was cool and moist, which allowed for glaciation in the mountains and the formation of deep, pluvial lakes in the deserts and basin lands. However, by the terminus of the late Pleistocene, the climate became warmer, which caused the glaciers to melt; sea levels to rise; greater coastal erosion; large lakes to recede and evaporate; extinction of Pleistocene megafauna; and major vegetation changes. The coastal shoreline at 10,000 YBP, depending upon the particular area of the coast, was near the 30-meter isobath, or two to six kilometers further west than its present location. Paleo Indians were likely attracted to multiple habitat types, including mountains, marshlands, estuaries, and lakeshores. These people likely subsisted using a more generalized hunting, gathering, and collecting adaptation utilizing a variety of resources including birds, mollusks, and both large and small mammals. (BFSA, 2018, p. 2.0-6)
- Early and Middle Holocene/Archaic Period (circa 9,000 to 1,300 YBP). Between 9,000 and 8,000 YBP, a widespread complex was established in the southern California region, primarily along the

coast. This complex is locally known as the La Jolla Complex, which is regionally associated with the Encinitas Tradition and shares cultural components with the widespread Milling Stone Horizon. The coastal expression of this complex appeared in the southern California coastal areas and focused upon coastal resources and the development of deeply stratified shell middens that were primarily located around bays and lagoons. The older sites associated with this expression are located at Topanga Canyon, Newport Bay, Agua Hedionda Lagoon, and some of the Channel Islands. Radiocarbon dates from sites attributed to this complex span a period of over 7,000 years in this region, beginning over 9,000 YBP. (BFSA, 2018, p. 2.0-6)

The Encinitas Tradition is best recognized for its pattern of large coastal sites characterized by shell middens, grinding tools that are closely associated with the marine resources of the area, cobble-based tools, and flexed human burials. While ground stone tools and scrapers are the most recognized tool types, coastal Encinitas Tradition sites also contain numerous utilized flakes, which may have been used to pry open shellfish. Artifact assemblages at coastal sites indicate a subsistence pattern focused upon shellfish collection and nearshore fishing. This suggests an incipient maritime adaptation with regional similarities to more northern sites of the same period. Other artifacts associated with Encinitas Tradition sites include stone bowls, doughnut stones, discoidals, stone balls, and stone, bone, and shell beads. (BFSA, 2018, p. 2.0-6)

The coastal lagoons in southern California supported large Milling Stone Horizon populations circa 6,000 YBP, as is shown by numerous radiocarbon dates from the many sites adjacent to the lagoons. The ensuing millennia were not stable environmentally, and by 3,000 YBP, many of the coastal sites in central San Diego County had been abandoned. The abandonment of the area is usually attributed to the sedimentation of coastal lagoons and the resulting deterioration of fish and mollusk habitat, a situation well-documented at Batiquitos Lagoon. Over a 2,000-year period at Batiquitos Lagoon, dominant mollusk species occurring in archaeological middens shift from deep-water mollusks (Argopecten sp.) to species tolerant of tidal flat conditions (Chione sp.), indicating water depth and temperature changes. This situation likely occurred for other small drainages (Buena Vista, Agua Hedionda, San Marcos, and Escondido creeks) along the central San Diego coast where low flow rates did not produce sufficient discharge to flush the lagoons they fed (Buena Vista, Agua Hedionda, Batiquitos, and San Elijo lagoons). Drainages along the northern and southern San Diego coastline were larger and flushed the coastal hydrological features they fed, keeping them open to the ocean and allowing for continued human exploitation. Peñasquitos Lagoon exhibits dates as late as 2,355 YBP and San Diego Bay showed continuous occupation until the close of the Milling Stone Horizon. Additionally, data from several drainages in Camp Pendleton indicate a continued occupation of shell midden sites until the close of the period, indicating that coastal sites were not entirely abandoned during this time. (BFSA, 2018, p. 2.0-7)

By 5,000 YBP, an inland expression of the La Jolla Complex is evident in the archaeological record, exhibiting influences from the Campbell Tradition from the north. These inland Milling Stone Horizon sites have been termed “Pauma Complex.” By definition, Pauma Complex sites share a predominance of grinding implements (manos and metates), lack mollusk remains, have greater tool variety (including atlatl dart points, quarry-based tools, and crescentics), and seem to express a more sedentary lifestyle with a subsistence economy based upon the use of a broad variety of terrestrial resources. Although originally viewed as a separate culture from the coastal La Jolla Complex, it appears that

these inland sites may be part of a subsistence and settlement system utilized by the coastal peoples. Evidence from the 4S Project in inland San Diego County suggests that these inland sites may represent seasonal components within an annual subsistence round by La Jolla Complex populations. Including both coastal and inland sites of this time period in discussions of the Encinitas Tradition, therefore, provides a more complete appraisal of the settlement and subsistence system exhibited by this cultural complex. (BFSA, 2018, p. 2.0-7)

- Late Holocene/Late Prehistoric/San Luis Rey Period (1300 YBP to 1790). Approximately 1,350 YBP, a Shoshonean-speaking group from the Great Basin region moved into Riverside County, marking the transition to the Late Prehistoric Period. This period is characterized by higher population densities and elaborations in social, political, and technological systems. Economic systems diversified and intensified during this period with the continued elaboration of trade networks, the use of shell-bead currency, and the appearance of more labor-intensive, yet effective, technological innovations. Technological developments during this period included the introduction of the bow and arrow between A.D. 400 and 600 and the introduction of ceramics. Atlatl darts were replaced by smaller arrow darts, including Cottonwood series points. Other hallmarks of the Late Prehistoric Period include extensive trade networks as far-reaching as the Colorado River Basin and cremation of the dead. (BFSA, 2018, pp. 2.0-7 and 2.0-8)
- Late Holocene/Late Protohistoric Period (1790 to Present). Ethnohistoric and ethnographic evidence indicates that three Shoshonean-speaking groups occupied portions of Riverside County including the Cahuilla, the Gabrielino, and the Luiseño. The geographic boundaries between these groups in pre- and protohistoric times are difficult to place, but the Project is located on the border of ethnographic Luiseño and Cahuilla territory. Further ethnographic information for the Luiseño, Cahuilla, and Gabrielino groups is presented in section 2.3.4 of the Project's Cultural Resources Assessment (*Technical Appendix H*). (BFSA, 2018, p. 2.0-8)

### *2. Historic Setting*

European exploration along the California coast began in 1542 when Juan Rodriguez Cabrillo and his men landed at San Diego Bay. Sixty years after the Cabrillo expeditions, an expedition under Sebastian Viscaíno made an extensive and thorough exploration of the Pacific coast. Although the voyage did not extend beyond the northern limits of the Cabrillo track, Viscaíno had the most lasting effect on the nomenclature of the coast. Many of the names he gave to various locations have survived, whereas practically every one of the names given by Cabrillo has faded from use. The early European voyages observed Native Americans living in villages along the coast but did not make any substantial, long-lasting impact. At the time of contact, the Luiseño population was estimated to have ranged from 4,000 to as many as 10,000 individuals. (BFSA, 2018, p. 2.0-9)

The historic background of the Project area began with the Spanish colonization of Alta California. The first Spanish colonizing expedition reached southern California in 1769 with the intention of converting and civilizing the indigenous populations, as well as expanding the knowledge of and access to new resources in the region. In the late eighteenth century, the San Gabriel (Los Angeles County), San Juan Capistrano (Orange County), and San Luis Rey (San Diego County) missions began colonizing southern California and gradually expanded their use of the interior valley (into what is now western Riverside County) for raising grain and

cattle to support the missions. The San Gabriel Mission claimed lands in what is now Jurupa, Riverside, San Jacinto, and the San Gorgonio Pass, while the San Luis Rey Mission claimed land in what is now Lake Elsinore, Temecula, and Murrieta. The indigenous groups who occupied these lands were recruited by missionaries, converted, and put to work in the missions. Throughout this period, the Native American populations were decimated by introduced diseases, a drastic shift in diet resulting in poor nutrition, and social conflicts due to the introduction of an entirely new social order. (BFSA, 2018, p. 2.0-9)

In the mid- to late 1770s, Juan Bautista de Anza passed through much of Riverside County while searching for an overland route from Sonora, Mexico to San Gabriel and Los Angeles, describing fertile valleys, lakes, and sub-desert areas. In 1797, Father Presidente Lausen, Father Norberto de Santiago, and Corporal Pedro Lisalde led an expedition from Mission San Juan Capistrano through southwestern Riverside County in search of a new mission site before constructing Mission San Luis Rey in northern San Diego County. While no missions were ever built in what would become Riverside County, many mission outposts, or asistencias, were established in the early years of the nineteenth century to extend the missions' influence to the backcountry. Two outposts located in Riverside County include San Jacinto and Temecula. (BFSA, 2018, p. 2.0-9)

Mexico gained independence in 1822 and desecularized the missions in 1832, signifying the end of the Mission Period. By this time, the missions owned much of the land in California, and the new government began distributing the vast mission holdings to wealthy and politically connected Mexican citizens. The "grants" were called "ranchos," of which Jurupa, El Rincon, La Sierra, El Sobrante de San Jacinto, La Laguna (Lake Elsinore), Santa Rosa, Temecula, Pauba, San Jacinto Nuevo y Potrero, and San Jacinto Viejo were located in present-day Riverside County. The first grant in present-day Riverside County, Rancho Jurupa, was given to Juan Bandini in 1838. These ranchos were all located in the valley environments typical of western Riverside County. (BFSA, 2018, pp. 2.0-9 and 2.0-10)

In 1846, war erupted between Mexico and the United States. In 1848, with the signing of the Treaty of Guadalupe Hidalgo, the region was annexed as a territory of the United States, leading to California becoming a state in 1850. These events generated a steady flow of settlers into the area, including gold miners, entrepreneurs, health-seekers, speculators, politicians, adventurers, seekers of religious freedom, and individuals desiring to create utopian colonies. In early 1852, the Native Americans of southern Riverside County, including the Luiseño and the Cahuilla, thought they had signed a treaty resulting in their ownership of all lands from Temecula to Aguanga east to the desert, including the San Jacinto Valley and the San Gorgonio Pass. The Temecula Treaty also included food and clothing provisions for the Indians. However, Congress never ratified the treaties, and the promise of one large reservation was rescinded. (BFSA, 2018, p. 2.0-10)

With the completion of the transcontinental railroad in 1869, land speculators, developers, and colonists began to invest in southern California. The first colony in what was to become Riverside County was Riverside itself. Judge John Wesley North, an abolitionist from Tennessee, brought a group of associates and co-investors out to southern California and founded Riverside on part of the Jurupa Rancho. A few years after, the navel orange quickly became the agricultural staple of the region. By the late 1880s and early 1890s, there was growing discontent between Riverside and San Bernardino, its neighbor 10 miles to the north, due to differences in opinion concerning religion, morality, the Civil War, politics, and fierce competition to attract settlers. After

a series of instances in which charges were claimed about unfair use of tax monies to the benefit of the City of San Bernardino only, several people from Riverside decided to investigate the possibility of a new county. In May of 1893, voters living within portions of San Bernardino County (to the north) and San Diego County (to the south) approved the formation of Riverside County. Early business opportunities were linked to the agriculture industry but commerce, construction, manufacturing, transportation, and tourism also provided a healthy local economy. By the time of Riverside County's formation, Riverside had grown to become the wealthiest city per capita in the country due to the successful cultivation of the navel orange. (BFSA, 2018, p. 2.0-10 and 2.0-11)

The region of Lake Elsinore started to develop in 1883 with the emergence of the railroad. The railroad brought a steady stream of settlers, miners, and prospectors into the area, thereby creating the community of Lake Elsinore. By 1884, the developing town had a school and post office established, and in 1893, the town officially became recognized as the City of Lake Elsinore. In the late nineteenth century, the town experienced a boom due to the mining of gold between the towns of Elsinore and nearby Perris. The most prosperous mine was Good Hope Mine, which produced over $2 million worth of gold. In addition to the mining of gold, Lake Elsinore is known for the mining of tin ore, coal, clay, and asbestos. Following the mining boom, Lake Elsinore began to bring in many tourists due to boat and auto racing and the lakefront resorts. The earliest attraction of Lake Elsinore was the legendary Crescent Bathhouse, which was built in 1923. The bathhouse was declared a National Historic Place on July 30, 1975. In 1932, the Ortega Highway was opened, as well as the airport, continuing to bring people into the city. The Great Depression limited expansion, except for the completion of a new post office in 1932. (BFSA, 2018, p. 2.0-11)

### *B. Documented Prehistoric Resources*

Brian F. Smith and Associates conducted an archaeological assessment of the Project site to identify the presence or absence of cultural resources. Testing to determine site significance included a records search, a Sacred Lands Records Search, a focused survey, and subsurface testing (advancing a series of shovel test pits [STPs]) (BFSA, 2018, pp. 1.0-1 and 1.0-2). The study resulted in the identification of one (1) prehistoric resource, which was previously unrecorded. During the 2017 survey of the property, BFSA confirmed the presence of prehistoric resource Site P-33-026830 at the Project site and conducted additional significance testing. The prehistoric resource site identified at the Project site is listed below.

- **Site P-33-026830:** Isolate P-33-026830 was identified on March 22, 2017 by BFSA archaeologists as two (2) prehistoric lithic flakes. Isolate P-33-026830 is located in the northeastern portion of the area of potential effect (APE). The area surrounding P-33-026830 has been disturbed by agricultural discing. Vegetation present during testing was minimal, which allowed for excellent surface visibility. Two (2) volcanic flakes were recovered from the surface of P-33-026830 although a shovel test conducted at the site was negative. P-33-026830 lacks intact subsurface deposit and the ability to provide any future research potential; therefore, P-33-026830 is being evaluated as not significant under CEQA. (BFSA, 2018, p. 4.0-32 and 4.0-34)

### C. *Historic Period Resources*

Brian F. Smith and Associates conducted a records search, field survey, and subsurface testing of the Project site to identify the presence or absence of historic resources on the Project site. One (1) historic site (Site RIV-8120) was identified within the Project boundaries, which is summarized below.

- **Site RIV-8120:** This is a historic refuse scatter comprising 12 artifact concentrations that was identified during a 2006 survey. BFSA archaeologists re-identified the site during the Phase I archaeological survey in the northwestern portion of the APE. This site is bounded by a large southwest trending drainage to the east and Nichols Road to the north, and likely developed as a result of roadside trash dumping that is still occurring within the Project area. At the time of the Phase II field effort, nearly half of the site had been cleared and graded for the placement of a water tank. Additionally, the remainder of Site RIV-8120 was disturbed by repeated agricultural discing. Because of this disturbance, the boundaries of the artifact locations as defined in a previous study (Lerch and Gray, 2006) have been spread throughout the site area, resulting in the identification of a total of 20 surface collection areas (or artifact concentrations). Vegetation at the site during testing was minimal, which allowed for excellent surface visibility. Consumer cans, bottles, and household refuse deposited between the 1930s and 1950s were identified on the surface of the site. (BFSA, 2018, p. 4.0-12) Site RIV-8120 lacks an intact subsurface deposit and the ability to provide any future research potential; therefore, Site RIV-8120 is evaluated as not significant under CEQA. (BFSA, 2018, p. 4.0-26)

## 4.8.2 Applicable Environmental Regulations

The following is a brief description of the federal, state, and local environmental laws and related regulations governing the protection of cultural and tribal cultural resources.

### A. *Federal Regulations*

#### 1. *National Historic Preservation Act*

The National Historic Preservation Act of 1966 (NHPA) was passed primarily to acknowledge the importance of protecting our nation’s heritage. While Congress recognized that national goals for historic preservation could best be achieved by supporting the drive, enthusiasm, and wishes of local citizens and communities, it understood that the Federal Government must set an example through enlightened policies and practices. In the words of the Act, the Federal Government's role would be to "provide leadership" for preservation, "contribute to" and "give maximum encouragement" to preservation, and "foster conditions under which our modern society and our prehistoric and historic resources can exist in productive harmony." (NPS, 2018c)

NHPA and related legislation sought a partnership among the Federal Government and the States that would capitalize on the strengths of each. The Federal Government, led by the National Park Service (NPS) provides funding assistance; basic technical knowledge and tools; and a broad national perspective on America's heritage. The States, through State Historic Preservation Officers (SHPOs) appointed by the Governor of each State, would provide matching funds, a designated State office, and a statewide preservation program tailored to State and local needs and designed to support and promote State and local historic preservation interests and priorities. (NPS, 2018c)

An Advisory Council on Historic Preservation, the first and only Federal entity created solely to address historic preservation issues, was established as a cabinet-level body of Presidentially-appointed citizens, experts in the field, and Federal, State, and local government representatives, to ensure that private citizens, local communities, and other concerned parties would have a forum for influencing federal policy, programs, and decisions as they impacted historic properties and their attendant values. (NPS, 2018c)

Section 106 of NHPA granted legal status to historic preservation in federal planning, decision-making, and project execution. Section 106 requires all federal agencies to take into account the effects of their actions on historic properties and provide ACHP with a reasonable opportunity to comment on those actions and the manner in which Federal agencies are taking historic properties into account in their decisions. (NPS, 2018c)

A number of additional executive and legislative actions have been directed toward improving the ways in which all federal agencies manage historic properties and consider historic and cultural values in their planning and assistance. Executive Order 11593 (1971) and, later, Section 110 of NHPA (1980, amended 1992), provided the broadest of these mandates, giving federal agencies clear direction to identify and consider historic properties in federal and federally assisted actions. The National Historic Preservation Amendments of 1992 further clarified Section 110 and directed federal agencies to establish preservation programs commensurate with their missions and the effects of their authorized programs on historic properties.

### *2. National Register of Historic Places (NRHP)*

The National Register of Historic Places is the official list of the Nation's historic places worthy of preservation. Authorized by the National Historic Preservation Act of 1966, the NPS's National Register of Historic Places (NRHP) is part of a national program to coordinate and support public and private efforts to identify, evaluate, and protect America's historic and archaeological resources. (NPS, n.d.)

To be considered eligible, a property must meet the National Register Criteria for Evaluation. This involves examining the property's age, integrity, and significance, as follows:

- Age and Integrity. Is the property old enough to be considered historic (generally at least 50 years old) and does it still look much the way it did in the past?
- Significance. Is the property associated with events, activities, or developments that were important in the past? With the lives of people who were important in the past? With significant architectural history, landscape history, or engineering achievements? Does it have the potential to yield information through archaeological investigation about our past? (NPS, n.d.)

Nominations can be submitted to a SHPO from property owners, historical societies, preservation organizations, governmental agencies, and other individuals or groups. The SHPO notifies affected property owners and local governments and solicits public comment. If the owner (or a majority of owners for a district nomination) objects, the property cannot be listed but may be forwarded to the National Park Service (NPS) for a Determination of Eligibility (DOE). Listing in the National Register of Historic Places provides formal recognition of a property's historical, architectural, or archaeological significance based on national standards used by every state. (NPS, n.d.)

Under Federal Law, the listing of a property in the National Register places no restrictions on what a non-federal owner may do with their property up to and including destruction, unless the property is involved in a project that receives federal assistance, usually funding or licensing/permitting. National Register listing does not lead to public acquisition or require public access. (NPS, n.d.)

### *3. National Historic Landmarks Program*

National Historic Landmarks (NHLs) are nationally significant historic places designated by the Secretary of the Interior because they possess exceptional value or quality in illustrating or interpreting the heritage of the United States. Today, just over 2,500 historic places bear this national distinction. Working with citizens throughout the nation, the National Historic Landmarks Program draws upon the expertise of National Park Service staff who guide the nomination process for new Landmarks and provide assistance to existing Landmarks. (NPS, 2017a)

### *4. American Indian Religious Freedom Act*

The American Indian Religious Freedom Act (AIRFA) requires each executive branch agency with statutory or administrative responsibility for the management of federal lands shall, to the extent practicable, permitted by law, and not clearly inconsistent with essential agency functions, to accommodate access to and ceremonial use of Indian sacred sites by Indian religious practitioners and avoid adversely affecting the physical integrity of such sacred sites. Where appropriate, agencies also are required to maintain the confidentiality of sacred sites. Each executive branch agency with statutory or administrative responsibility for the management of federal lands are required to implement procedures to ensure reasonable notice is provided of proposed actions or land management policies that may restrict future access to or ceremonial use of, or adversely affect the physical integrity of, sacred sites.

### *5. Native American Graves Protection and Repatriation Act (NAGPRA)*

The Native American Graves Protection and Repatriation Act (NAGPRA; Public Law 101-601; 25 U.S.C. 3001-3013) describes the rights of Native American lineal descendants, Indian tribes, and Native Hawaiian organizations with respect to the treatment, repatriation, and disposition of Native American human remains, funerary objects, sacred objects, and objects of cultural patrimony, referred to collectively in the statute as cultural items, with which they can show a relationship of lineal descent or cultural affiliation. (NPS, 2018a)

One major purpose of this statute is to require that federal agencies and museums receiving Federal funds inventory holdings of Native American human remains and funerary objects and provide written summaries of other cultural items. The agencies and museums must consult with Indian Tribes and Native Hawaiian organizations to attempt to reach agreements on the repatriation or other disposition of these remains and objects. Once lineal descent or cultural affiliation has been established, and in some cases the right of possession also has been demonstrated, lineal descendants, affiliated Indian Tribes, or affiliated Native Hawaiian organizations normally make the final determination about the disposition of cultural items. Disposition may take many forms from reburial to long term curation, according to the wishes of the lineal descendent(s) or culturally affiliated Tribe(s). (NPS, 2018a)

The second major purpose of the statute is to provide greater protection for Native American burial sites and more careful control over the removal of Native American human remains, funerary objects, sacred objects, and items of cultural patrimony on Federal and tribal lands. NAGPRA requires that Indian tribes or Native Hawaiian organizations be consulted whenever archaeological investigations encounter, or are expected to encounter, Native American cultural items or when such items are unexpectedly discovered on Federal or tribal lands. Excavation or removal of any such items also must be done under procedures required by the Archaeological Resources Protection Act. This NAGPRA requirement is likely to encourage the in-situ preservation of archaeological sites, or at least the portions of them that contain burials or other kinds of cultural items. (NPS, 2018a)

Other provisions of NAGPRA: (1) stipulate that illegal trafficking in human remains and cultural items may result in criminal penalties; (2) authorizes the Secretary of the Interior to administer a grants program to assist museums and Indian Tribes in complying with certain requirements of the statute; (3) requires the Secretary of the Interior to establish a Review Committee to provide advice and assistance in carrying out key provisions of the statute; (4) authorizes the Secretary of the Interior to penalize museums that fail to comply with the statute; and, (5) directs the Secretary to develop regulations in consultation with this Review Committee. (NPS, 2018a)

#### *6. Federal Antiquities Act*

The Antiquities Act is the first law to establish that archaeological sites on public lands are important public resources. It obligates federal agencies that manage the public lands to preserve for present and future generations the historic, scientific, commemorative, and cultural values of the archaeological and historic sites and structures on these lands. It also authorizes the President to protect landmarks, structures, and objects of historic or scientific interest by designating them as National Monuments. (NPS, 2018b)

### *B. State Regulations*

#### *1. California Administrative Code, Title 14, Section 4308*

Section 4308, *Archaeological Features*, of Title 14 of the California Administrative Code provides that: "No person shall remove, injure, disfigure, deface, or destroy any object of archaeological, or historical interest or value."

#### *2. California Code of Regulations Title 14, Section 1427*

California Code of Regulations Title 14, Section 1427 provides that: "No person shall collect or remove any object or thing of archaeological or historical interest or value, nor shall any person injure, disfigure, deface or destroy the physical site, location or context in which the object or thing of archaeological or historical interest or value is found."

#### *3. California Register of Historic Resources*

The State Historical Resources Commission has designed this program for use by state and local agencies, private groups, and citizens to identify, evaluate, register, and protect California's historical resources. The Register is the authoritative guide to the state's significant historical and archaeological resources. The California Register program encourages public recognition and protection of resources of architectural,

historical, archaeological, and cultural significance; identifies historical resources for state and local planning purposes; determines eligibility for state historic preservation grant funding; and affords certain protections under CEQA. (OHP, n.d.)

In order for a resource to be included on the Register of Historic Resources, the resources must meet one of the following criteria:

- Associated with events that have made a significant contribution to the broad patterns of local or regional history or the cultural heritage of California or the United States (Criterion 1).
- Associated with the lives of persons important to local, California or national history (Criterion 2).
- Embodies the distinctive characteristics of a type, period, region, or method of construction or represents the work of a master or possesses high artistic values (Criterion 3).
- Has yielded, or has the potential to yield, information important to the prehistory or history of the local area, California, or the nation (Criterion 4). (OHP, n.d.)

For resources included on the Register of Historic Resources, environmental review may be required under CEQA if property is threatened by a project. Additionally, local building inspectors must grant code alternatives provided under State Historical Building Code. Further, the local assessor may enter into contract with property owner for property tax reduction pursuant to the Mills Act. A property owner also may place his or her own plaque or marker at the site of the resource. (OHP, n.d.)

Consent of owner is not required, but a resource cannot be listed over an owner's objections. The State Historical Resources Commission (SHRC) can, however, formally determine a property eligible for the California Register if the resource owner objects. (OHP, n.d.)

### *4. Traditional Tribal Cultural Places Act (Senate Bill 18, "SB 18")*

Senate Bill 18 (SB 18) requires local (city and county) governments to consult with California Native American tribes to aid in the protection of traditional tribal cultural places ("cultural places") through local land use planning. SB 18 also requires the Governor's Office of Planning and Research (OPR) to include in the General Plan Guidelines advice to local governments for how to conduct these consultations. (OPR, 2005)

The intent of SB 18 is to provide California Native American tribes an opportunity to participate in local land use decisions at an early planning stage, for the purpose of protecting, or mitigating impacts to, cultural places. The purpose of involving tribes at these early planning stages is to allow consideration of cultural places in the context of broad local land use policy, before individual site-specific, project-level land use decisions are made by a local government. (OPR, 2005)

SB 18 requires local governments to consult with tribes prior to making certain planning decisions and to provide notice to tribes at certain key points in the planning process. These consultation and notice requirements apply to adoption and amendment of both general plans (defined in Government Code § 65300 *et seq.*) and specific plans (defined in Government Code § 65450 *et seq.*). Although SB 18 does not specifically

mention consultation or notice requirements for adoption or amendment of specific plans, existing state planning law requires local governments to use the same processes for adoption and amendment of specific plans as for general plans (see Government Code § 65453). Therefore, where SB 18 requires consultation and/or notice for a general plan adoption or amendment, the requirement extends also to a specific plan adoption or amendment. (OPR, 2005)

### *5. Assembly Bill 52 (AB 52)*

The legislature added new requirements regarding tribal cultural resources in Assembly Bill 52 (AB 52). By including tribal cultural resources early in the CEQA process, the legislature intended to ensure that local and Tribal governments, public agencies, and project proponents would have information available, early in the project planning process, to identify and address potential adverse impacts to tribal cultural resources. By taking this proactive approach, the legislature also intended to reduce the potential for delay and conflicts in the environmental review process. (OPR, 2015)

The Public Resources Code now establishes that "[a] project with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource is a project that may have a significant effect on the environment." (Pub. Resources Code, § 21084.2.) To help determine whether a project may have such an effect, the Public Resources Code requires a lead agency to consult with any California Native American tribe that requests consultation and is traditionally and culturally affiliated with the geographic area of a proposed project. That consultation must take place prior to the determination of whether a negative declaration, mitigated negative declaration, or environmental impact report is required for a project. (Pub. Resources Code, § 21080.3.1.) (OPR, 2015)

If a lead agency determines that a project may cause a substantial adverse change to tribal cultural resources, the lead agency must consider measures to mitigate that impact. Public Resources Code § 20184.3 (b)(2) provides examples of mitigation measures that lead agencies may consider to avoid or minimize impacts to tribal cultural resources. These rules apply to projects that have a notice of preparation for an environmental impact report or negative declaration or mitigated negative declaration filed on or after July 1, 2015. (OPR, 2015)

§ 21074 of the Public Resources Code defines "tribal cultural resources." In brief, in order to be considered a "tribal cultural resource," a resource must be either:

(1) listed, or determined to be eligible for listing, on the national, state, or local register of historic resources, or

(2) a resource that the lead agency chooses, in its discretion, to treat as a tribal cultural resource. (OPR, 2015)

In the latter instance, the lead agency must determine that the resource meets the criteria for listing in the state register of historic resources. In applying those criteria, a lead agency must consider the value of the resource to the tribe. (OPR, 2015)

### *6. State Health and Safety Code*

California Health and Safety Code (HSC) § 7050.5(b) requires that excavation and disturbance activities must cease "In the event of discovery or recognition of any human remains in any location other than a dedicated cemetery…" until the coroner can determine regarding the circumstances, manner, and cause of any death. The coroner is then required to make recommendations concerning the treatment and disposition of the human remains. Further, this section of the code makes it a misdemeanor to intentionally disturb, mutilate or remove interred human remains. § 7051 specifies that the removal of human remains from "internment or a place of storage while awaiting internment" with the intent to sell them or to dissect them with "malice or wantonness" is a public offense punishable by imprisonment in a state prison. Lastly, HSC §§ 8010-8011 establish the California Native American Graves Protection and Repatriation Act consistent with the federal law addressing the same. The Act stresses that "all California Indian human remains and cultural items are to be treated with dignity and respect." It encourages voluntary disclosure and return of remains and cultural items by publicly funded agencies and museums in California. It also outlines the need for aiding California Indian tribes, including non-federally recognized tribes, in filing repatriation claims.

### *7. California Code of Regulations Section 15064.5*

The California Code of Regulations, Title 14, Chapter 3, § 15064.5 (the State CEQA Guidelines) establishes the procedure for determining the significance of impacts to archaeological and historical resources, as well as classifying the type of resource. Cultural resources are aspects of the environment that require identification and assessment for potential significance. The evaluation of cultural resources under CEQA is based upon the definitions of resources provided in CEQA Guidelines § 15064.5, as follows:

- A resource listed in, or determined to be eligible by the State Historical Resources Commission, for listing in the California Register of Historical Resources (Pub. Res. Code § 5024.1, Title 14 CCR, Section 4850 *et seq.*).
- A resource included in a local register of historical resources, as defined in section 5020.1(k) of the Public Resources Code or identified as significant in an historical resource survey meeting the requirements section 5024.1(g) of the Public Resources Code, shall be presumed to be historically or culturally significant. Public agencies must treat any such resource as significant unless the preponderance of evidence demonstrates that it is not historically or culturally significant.
- Any object, building, structure, site, area, place, record, or manuscript which a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California may be considered to be an historical resource, provided the lead agency's determination is supported by substantial evidence in light of the whole record. Generally, a resource shall be considered by the lead agency to be "historically significant" if the resource meets the criteria for listing on the California Register of Historical Resources (Pub. Res. Code § 5024.1, Title 14 CCR, Section 4852) including the following:
    - Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;
    - Is associated with the lives of persons important in our past;

- 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; or
- Has yielded, or may be likely to yield, information important in prehistory or history.

- The fact that a resource is not listed in, or determined to be eligible for listing in the California Register of Historical Resources, not included in a local register of historical resources (pursuant to section 5020.1(k) of the Public Resources Code), or identified in an historical resources survey (meeting the criteria in section 5024.1(g) of the Public Resources Code) does not preclude a lead agency from determining that the resource may be an historical resource as defined in Public Resources Code sections 5020.1(j) or 5024.1.

### *C. Local Regulations*

#### *1. City of Lake Elsinore General Plan*

The City of Lake Elsinore General Plan, Chapter 4, *Resource Protection and Preservation*, addresses resource protection and preservation issues related to biological resources, open space, water resources, cultural and paleontological resources, and aesthetics resources. Section 4.6.8, *Cultural and Paleontological Resource Goals, Policies, and Implementation Programs*, and Section 4.7.3, *Historical Preservation Goals*, Policies and Implementation Programs, details policies, implementation programs, and responsible agencies and departments in support of the following goals regarding cultural resources:

- Goal 6: Preserve, protect, and promote the cultural heritage of the City and surrounding region for the education and enjoyment of all City residents and visitors, as well as for the advancement of historical and archaeological knowledge.
- Goal 7: Support state-of-the-art research designs and analytical approaches to archaeological and cultural resource investigations while also acknowledging the traditional knowledge and experience of the Native American tribes regarding Native American culture.
- Goal 9: Assure the recognition of the City's heritage through preservation of the City's significant historical sites and structures.
- Goal 10: Encourage the preservation, protection, and restoration of historical and cultural resources.

## 4.8.3 BASIS FOR DETERMINING SIGNIFICANCE

The proposed Project would result in a significant impact to historic or archaeological resources if the Project or any Project-related component would:

*a. Cause a substantial adverse change in the significance of a historical resource pursuant to § 15064.5;*

*b. Cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5; or*

*c. Disturb any human remains, including those interred outside of formal cemeteries.*

The above-listed thresholds are derived directly from Section V of Appendix G to the CEQA Guidelines and address typical adverse effects to cultural resources. (OPR, 2018)

## 4.8.4 IMPACT ANALYSIS

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

Under existing conditions, the Project site is undeveloped and there are no structures located on-site. According to the City of Lake Elsinore General Plan EIR, there are no known historical sites on the Project site. As shown on Figure 3.2-2 of the General Plan EIR, the nearest historical site to the Project site is located approximately 1.5 miles southwest of the Project site. (Lake Elsinore, 2011, Figure 3.2-2) Additionally, the northern 45.4 acres of the Project site are currently undergoing reclamation activities pursuant to Amendment No. 2 to Reclamation Plan 2006-01 (Reclamation Plan 2006-01A2).

A site-specific Cultural Resources Assessment (*Technical Appendix H*) was prepared for the Project. As described under Subsection 4.8.1C of the Cultural Resources Assessment, one (1) historical resource was identified at the Project site, Site RIV-8120. This historical resource consists of a historic trash scatter composed of 12 refuse concentrations on the northwest corner of the Project site that was possibly used throughout 1930 to 1960 for roadside trash dumping. Site RIV-8120 contains no associated structures or features. Significance testing on Site RIV-8120 revealed a total of 480 subsurface concentrations of historic artifacts; however, due to a lack of unique elements, and according to the criteria listed in CEQA Guidelines § 15064.5, BFSA concluded that Site RIV-8120 is not a significant historical resource (BFSA, 2018, pp. 1.0-1 and 4.0-26). There are no other historical resources present on the Project site. However, there is a possibility that historical resources may be present beneath the site's surface and may be impacted by future ground-disturbing construction activities associated with the Project. Pursuant to California Code of Regulations, § 15064.5, this is a potentially significant impact for which mitigation would be required.

***Threshold b:*** ***Would the Project cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?***

As described under Subsection 4.8.1C, the Project's Cultural Resources Assessment (*Technical Appendix H*) identified one (1) archaeological resource site at the Project site, Site P-33-026830. Based on the results of the significance testing conducted by BFSA (refer to *Technical Appendix H*), P-33-011259 does not comprise a significant archaeological resource pursuant to the criteria given in CEQA Guidelines § 15064.5. CEQA Guidelines § 15064.5 states that an archaeological resource would be significant if the resource met the criteria stated in Public Resources Code Section 21083.2 which states that a resource would be significant if it meets any of the following criteria: contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information; has a special and particular quality such as being the oldest of its type or the best available example of its type; is directly associated with a scientifically recognized important prehistoric or historic event or person (CA Public Resources Code Section 21083.2).

Significance testing via shovel excavation on Site P-33-026830 demonstrated that P-33-026830 consists of two (2) volcanic flakes with no associated artifacts. Because no diagnostic artifacts were discovered at this site, no definite cultural affiliation could be assigned to the resource. Furthermore, significance testing determined that the site exhibits no artifacts, artifact assemblages, or subsurface features. (BFSA, 2018, p. 4.0-34) Thus, the significance testing for Site P-33-026830 determined that the site does not qualify as a significant archaeological resource under any of the stated criteria listed in CEQA Guidelines § 15064.5. Accordingly, the Project's impacts to archaeological resources would be less than significant and no mitigation is required.

Regardless, there is a possibility that archaeological resources may be present beneath the site's subsurface and may be impacted by future ground-disturbing construction activities associated with the Project. Due to the potential to discover significant archaeological resources within the Project boundaries, which could be significantly impacted if not properly identified and treated, a potentially significant impact to subsurface archaeological resources would occur, and mitigation would be required. (BFSA, 2018, p. 1.0-3)

***Threshold c:*** ***Would the Project disturb any human remains, including those interred outside of formal cemeteries?***

The Project site does not contain a cemetery and no known cemeteries are located within the immediate site vicinity. Field surveys conducted on the Project site by BFSA did not identify the presence of any human remains and no human remains are known to exist beneath the surface of the site. (BFSA, 2018, p. 3.0-4) Nevertheless, the remote potential exists that human remains may be unearthed during grading and excavation activities associated with Project construction.

If human remains are unearthed during Project construction, the construction contractor would be required by law to comply with California Health and Safety Code, § 7050.5, "Disturbance of Human Remains." According to § 7050.5(b) and (c), if human remains are discovered, the County Coroner must be contacted and if the Coroner recognizes the human remains to be those of a Native American or has reason to believe that they are those of a Native American, the Coroner is required to contact the Native American Heritage Commission (NAHC) by telephone within 24 hours. Pursuant to California Public Resources Code § 5097.98, whenever the NAHC receives notification of a discovery of Native American human remains from a county coroner, the NAHC is required to immediately notify those persons it believes to be most likely descended from the deceased Native American. The descendants may, with the permission of the owner of the land, or his or her authorized representative, inspect the site of the discovery of the Native American human remains and may recommend to the owner or the person responsible for the excavation work means for treatment or disposition, with appropriate dignity, of the human remains and any associated grave goods. The descendants shall complete their inspection and make recommendations or preferences for treatment within 48 hours of being granted access to the site. According to Public Resources Code § 5097.94(k), the NAHC is authorized to mediate disputes arising between landowners and known descendants relating to the treatment and disposition of Native American human burials, skeletal remains, and items associated with Native American burials. With mandatory compliance to California Health and Safety Code § 7050.5 and Public Resources Code § 5097.98, any potential impacts to human remains, including human remains of Native American descent, would be less than significant and mitigation is not required. (BFSA, 2018, p. 3.0-7)

## 4.8.5 Cumulative Impact Analysis

This cumulative impact analysis considers development of the proposed Project in conjunction with other development projects and planned development in the vicinity of the Project site.

As noted above under Threshold a, the Project site contains one (1) historical resource (Site RIV-8120). Site RIV-8120 was found not to be significant under CEQA criteria. Regardless, there is a potential that historical resources meeting the CEQA definition of a significant resource may be buried beneath the surface and unearthed during the Project's construction activities. Impact to such resources have the potential to be significant if they are not properly identified and treated. In addition, other cumulative developments could have the potential to result in impacts to known and/or previously-undiscovered historical resources. As such, the Project would result in a cumulatively-considerable impact to historical resources and requires mitigation.

As noted above under Threshold b, the Project site contains one (1) previously documented archaeological resource (Site P-33-026830). Significance testing determined no subsurface artifact concentrations at Site P-33-026830; thus, Site P-33-026830 would not be significant under CEQA criteria. Accordingly, the Project would not impact any known archaeological resources that are significant under CEQA Guidelines criteria. Regardless, there is a potential that archaeological resources meeting the CEQA definition of a significant resource may be buried beneath the surface and unearthed during the Project's construction activities. Impacts to such resources have the potential to be significant if they are not properly identified and treated. Other cumulative developments also could have the potential to result in impacts to known and/or previously-undiscovered archaeological resources. Thus, the Project's potential impacts to significant archaeological resources, should such resources be unearthed during the Project's ground-disturbing construction activities, would be cumulatively considerable and require mitigation.

As discussed under Threshold c, due to mandatory compliance with the provisions of California Health and Safety Code § 7050.5 as well as Public Resources Code § 5097 *et. seq.*, any human remains encountered during ground disturbing activities would be treated in an appropriate manner. Because other development projects within the region similarly would be required to comply with state law, any cumulative impact associated with human remains discovery would be less than significant.

## 4.8.6 Significance of Impacts Before Mitigation

Thresholds a: Significant Direct and Cumulatively-Considerable Impact. The Project site would impact one (1) known historical resource (Site RIV-8120) on the Project site. However, Site RIV-8120 is not determined significant pursuant to the criteria given in CEQA Guidelines § 15064.5. Also, there are no other known archaeological resources at the Project site. Accordingly, the Project would result in less-than-significant impacts to known significant historical resources. Regardless, there is a potential that historical resources may be buried beneath the surface of the site that meet the CEQA definition of a significant resource which could not be unearthed during the Project's construction process. If such resources are unearthed and are not properly identified and treated, the impact would be significant on both a direct and cumulative basis. Mitigation is required to address these potential impacts.

Thresholds b: Significant Direct and Cumulatively-Considerable Impact. As noted above under Threshold b, the Project site contains one (1) archaeological resource (Site P-33-026830). However, Site P-33-026830 is not determined significant pursuant to the criteria given in CEQA Guidelines § 15064.5. Accordingly, the Project would result in less-than-significant impacts to known significant archaeological resources. Regardless, there is a potential that archaeological resources may be buried beneath the surface of the site that meet the CEQA definition of a significant resource which could be unearthed during the Project's construction process. If such resources are unearthed and are not properly identified and treated, the impact would be significant. Mitigation is required to address these potential impacts.

Threshold c: Less-than-Significant Impact. The Project site does not contain a cemetery and no known cemeteries are located within the immediate site vicinity. In the unlikely event that human remains are discovered during Project grading or other ground-disturbing activities, the Project would be required to comply with the applicable provisions of California Health and Safety Code § 7050.5 and California Public Resources Code § 5097 *et. seq.* Mandatory compliance with State law would ensure that human remains, if encountered, are appropriately treated and would preclude the potential for significant impacts to human remains.

## 4.8.7 City Regulations, Design Requirements, and Mitigation

The following mitigation measures are required to reduce to below a level of significance the Project's potential impact to archaeological and historical resources that have the potential to be present beneath the Project site and discovered during ground-disturbing construction activities.

MM 4.8-1 Unanticipated Resources. The developer/permit holder or any successor in interest shall comply with the following for the life of this permit. If during ground disturbance activities, unanticipated cultural resources are discovered, the following procedures shall be followed:

1. All ground disturbance activities within 100 feet of the discovered cultural resource shall be halted until a meeting is convened between the developer, the Project Archaeologist, the Native American tribal representative(s) from consulting tribes (or other appropriate ethnic/cultural group representative), and the Community Development Director or their designee to discuss the significance of the find.
2. The developer shall call the Community Development Director or their designee immediately upon discovery of the cultural resource to convene the meeting.
3. At the meeting with the aforementioned parties, the significance of the discoveries shall be discussed and a decision is to be made, with the concurrence of the Community Development Director or their designee, as to the appropriate mitigation (documentation, recovery, avoidance, etc.) for the cultural resource.
4. Further ground disturbance shall not resume within the area of the discovery until a meeting has been convened with the aforementioned parties and a decision is made, with the concurrence of the Community Development Director or their designee, as to the appropriate mitigation measures.

MM 4.8-2 Archaeologist/CRMP. Prior to issuance of grading permits, the applicant/developer shall provide evidence to the Community Development Department that a Secretary of Interior Standards qualified and certified Registered Professional Archaeologist (RPA) has been contracted to implement a Cultural Resource Monitoring Program (CRMP) that addresses the details of all activities that must be completed and procedures that must be followed regarding cultural resources associated with this project. The CRMP document shall be provided to the Community Development Director or their designee for review and approval prior to issuance of the grading permit. The CRMP provides procedures to be followed and are to ensure that impacts on cultural resources will not occur without procedures that would reduce the impacts to less than significant. These measures shall include, but shall not be limited to, the following:

- Archaeological Monitor: An adequate number of qualified monitors shall be present to ensure that all earth-moving activities are observed and shall be on-site during all grading activities for areas to be monitored including off-site improvements. Inspections will vary based on the rate of excavation, the materials excavated, and the presence and abundance of artifacts and features. The frequency and location of inspections will be determined by the Project Archaeologist, in consultation with the Tribal monitor.

- Cultural Sensitivity Training: The Project Archaeologist and a representative designated by the consulting Tribe(s) shall attend the pre-grading meeting with the contractors to provide Cultural Sensitivity Training for all Construction Personnel. Training will include a brief review of the cultural sensitivity of the Project and the surrounding area; what resources could potentially be identified during earthmoving activities; the requirements of the monitoring program; the protocols that apply in the event unanticipated cultural resources are identified, including who to contact and appropriate avoidance measures until the find(s) can be properly evaluated; and any other appropriate protocols. This is a mandatory training and all construction personnel must attend prior to beginning work on the project site. A sign-in sheet for attendees of this training shall be included in the Phase IV Monitoring Report.

- Unanticipated Resources: In the event that previously unidentified potentially significant cultural resources are discovered, the Archaeological and/or Tribal Monitor(s) shall have the authority to divert or temporarily halt ground disturbance operations in the area of discovery to allow evaluation of potentially significant cultural resources. The Project Archaeologist, in consultation with the Tribal monitor(s) shall determine the significance of the discovered resources. The Community Development Director or their designee must concur with the evaluation before construction activities will be allowed to resume in the affected area. Before construction activities are allowed to resume in the affected area, the artifacts shall be recovered and features recorded using professional archaeological methods.

- Cultural Resources Disposition: In the event that Native American cultural resources are discovered during the course of grading (inadvertent discoveries), the following procedures shall be carried out for final disposition of the discoveries:

  One or more of the following treatments, in order of preference, shall be employed with the tribes. Evidence of such shall be provided to the Community Development Department:

  1. Preservation-In-Place of the cultural resources, if feasible. Preservation in place means avoiding the resources, leaving them in the place where they were found with no development affecting the integrity of the resources.

  2. Relocation of the resources on the Project property. The measures for relocation shall include, at least, the following: Measures and provisions to protect the future reburial area from any future impacts by means of a deed restriction or other form of protection (e.g., conservation easement) in order to demonstrate avoidance in perpetuity.

     Relocation shall not occur until all legally required cataloging and basic recordation have been completed, with an exception that sacred items, burial goods and Native American human remains are excluded. Any reburial process shall be culturally appropriate. Listing of contents and location of the reburial shall be included in the confidential Phase IV report. The Phase IV Report shall be filed with the City under a confidential cover and not subject to Public Records Request.

  3. If relocation is not agreed upon by the Consulting Tribes then the resources shall be curated at a culturally appropriate manner at a Riverside County curation facility that meets State Resources Department Office of Historic Preservation Guidelines for the Curation of Archaeological Resources ensuring access and use pursuant to the Guidelines. The collection and associated records shall be transferred, including title, and are to be accompanied by payment of the fees necessary for permanent curation. Evidence of curation in the form of a letter from the curation facility stating that subject archaeological materials have been received and that all fees have been paid, shall be provided by the landowner to the City. There shall be no destructive or invasive testing on sacred items, burial goods and Native American human remains. Results concerning finds of any inadvertent discoveries shall be included in the Phase IV monitoring report.

- Phase IV Report: A final archaeological report shall be prepared by the Project archaeologist and submitted to the Community Development Director or their designee prior to grading final. The report shall follow County of Riverside requirements and shall include at a minimum: a discussion of the monitoring methods and techniques used; the results of the monitoring program including any artifacts recovered; an inventory of any

resources recovered; updated DPR forms for all sites affected by the development; final disposition of the resources including GPS data; artifact catalog and any additional recommendations. A final copy shall be submitted to the City, Project Applicant, the Eastern Information Center (EIC), and the Tribe.

MM 4.8-3 Cultural Resources Disposition: In the event that Native American cultural resources are discovered during the course of grading (inadvertent discoveries), the following procedures shall be carried out for final disposition of the discoveries:

One or more of the following treatments, in order of preference, shall be employed with the tribes. Evidence of such shall be provided to the Community Development Department:

1. Preservation-In-Place of the cultural resources, if feasible. Preservation in place means avoiding the resources, leaving them in the place where they were found with no development affecting the integrity of the resources.

2. Relocation of the resources on the Project property. The measures for relocation shall include, at least, the following: Measures and provisions to protect the future reburial area from any future impacts by means of a deed restriction or other form of protection (e.g., conservation easement) in order to demonstrate avoidance in perpetuity.

   Relocation shall not occur until all legally required cataloging and basic recordation have been completed, with an exception that sacred items, burial goods and Native American human remains are excluded. Any reburial process shall be culturally appropriate. Listing of contents and location of the reburial shall be included in the confidential Phase IV report. The Phase IV Report shall be filed with the City under a confidential cover and not subject to Public Records Request.

3. If relocation is not agreed upon by the Consulting Tribes then the resources shall be curated at a culturally appropriate manner at a Riverside County curation facility that meets State Resources Department Office of Historic Preservation Guidelines for the Curation of Archaeological Resources ensuring access and use pursuant to the Guidelines. The collection and associated records shall be transferred, including title, and are to be accompanied by payment of the fees necessary for permanent curation. Evidence of curation in the form of a letter from the curation facility stating that subject archaeological materials have been received and that all fees have been paid, shall be provided by the landowner to the City. There shall be no destructive or invasive testing on sacred items, burial goods and Native American human remains. Results concerning finds of any inadvertent discoveries shall be included in the Phase IV monitoring report.

MM 4.8-4 Tribal Monitoring. Prior to the issuance of a grading permit, the applicant shall contact the consulting Native American Tribe(s) that have requested monitoring through consultation with the City during the AB 52 and/or the SB 18 process (“Monitoring Tribes”). The applicant shall

coordinate with the Tribe(s) to develop individual Tribal Monitoring Agreement(s). A copy of the signed agreement(s) shall be provided to the City of Lake Elsinore Community Development Department, Planning Division prior to the issuance of a grading permit. The Agreement shall address the treatment of any known tribal cultural resources (TCRs) including the project's approved mitigation measures and conditions of approval; the designation, responsibilities, and participation of professional Tribal Monitors during grading, excavation and ground disturbing activities; project grading and development scheduling; terms of compensation for the monitors; and treatment and final disposition of any cultural resources, sacred sites, and human remains/burial goods discovered on the site per the Tribe(s) customs and traditions and the City's mitigation measures/conditions of approval. The Tribal Monitor will have the authority to stop and redirect grading in the immediate area of a find in order to evaluate the find and determine the appropriate next steps, in consultation with the Project Archaeologist.

MM 4.8-5 Phase IV Report. Upon completion of the implementation phase, a Phase IV Cultural Resources Monitoring Report shall be submitted that complies with the Riverside County Planning Department's requirements for such reports for all ground disturbing activities associated with this grading permit. The report shall follow the County of Riverside Planning Department Cultural Resources (Archaeological) Investigations Standard Scopes of Work posted on the County website. The report shall include results of any feature relocation or residue analysis required as well as evidence of the required cultural sensitivity training for the construction staff held during the required pre-grade meeting.

MM 4.8-6 Discovery of Human Remains. In the event that human remains (or remains that may be human) are discovered at the project site during grading or earthmoving, the construction contractors, project archaeologist and/or designated Native American Monitor shall immediately stop all activities within 100 feet of the find. The project applicant shall then inform the Riverside County Coroner and the City of Lake Elsinore Community Development Department immediately, and the coroner shall be permitted to examine the remains as required by California Health and Safety Code Section 7050.5(b). Section 7050.5 requires that excavation be stopped in the vicinity of discovered human remains and that no further disturbance shall occur until the Riverside County Coroner has made the necessary findings as to origin. If human remains are determined to be Native American, the applicant shall comply with the state law relating to the disposition of Native American burials that fall within the jurisdiction of the NAHC (PRC Section 5097). The coroner shall contact the NAHC within 24 hours and the NAHC will make the determination of most likely descendant(s). The most likely descendant shall then make recommendations and engage in consultation concerning the treatment of the remains as provided in Public Resources Code Section 5097.98. In the event that the applicant and the MLD are in disagreement regarding the disposition of the remains. State law will apply and the mediation process will occur with the NAHC, if requested (see PRC Section 5097.98(e) and 5097.94(k)).

According to the California Health and Safety Code, six or more human burial at one location constitutes a cemetery (Section 81 00), and disturbance of Native American cemeteries is a felony (Section 7052).

MM 4.8-7 Non-Disclosure of Reburial Location. It is understood by all parties that unless otherwise required by law, the site of any reburial of Native American human remains or associated grave goods shall not be disclosed and shall not be governed by public disclosure requirements of the California Public Records Act. The Coroner, pursuant to the specific exemption set forth in California Government Code 6254(r), parties, and Lead Agencies, will be asked to withhold public disclosure information related to such reburial, pursuant to the specific exemption set forth in California Government Code 6254(r).

## 4.8.8 Significance of Impacts After Mitigation

Threshold a: Less-than-Significant Impact with Mitigation. Implementation of the Project would impact historical resources on the Project site that may be uncovered during grading activities. Compliance with the Applicable City Regulations and Design Requirements, as well as Mitigation Measures MM 4.8-1 through MM 4.8-7, would ensure that a qualified Project Archaeologist and Tribal Monitors present on-site during ground-disturbing activities and would ensure that any archaeological resources that may be uncovered are appropriately treated as recommended by the Project Archaeologist in consultation with the Tribal Monitors.

Threshold b: Less-than-Significant Impact with Mitigation. Implementation of the Project would impact archaeological resources on the Project site that may be uncovered during grading activities. Compliance with the Applicable City Regulations and Design Requirements, as well as Mitigation Measures MM 4.8-1 through MM 4.8-7 would ensure that a qualified Project Archaeologist and Tribal Monitors are present on-site during ground disturbing activities and would ensure that any archaeological resources that may be uncovered are appropriately treated as recommended by the Project Archaeologist in consultation with the Tribal Monitors.

# 4.9 HYDROLOGY AND WATER QUALITY

The following analysis is based on a study entitled "Preliminary Drainage Report for Tract 37305 Nichols South Specific Plan City of Lake Elsinore" prepared by K&A Engineering, Inc. and dated July 2018. The Drainage Report is included in this EIR as *Technical Appendix I1* (K&A, 2018a). Analysis in this Subsection also is based on a Preliminary Water Quality Management Plan (WQMP) titled "Preliminary Specific Water Quality Management Plan" prepared by K&A Engineering, Inc. and dated November 2018. The WQMP is included in this EIR as *Technical Appendix I2* (K&A, 2018b).

## 4.9.1 EXISTING CONDITIONS

### A. *Regional Hydrology*

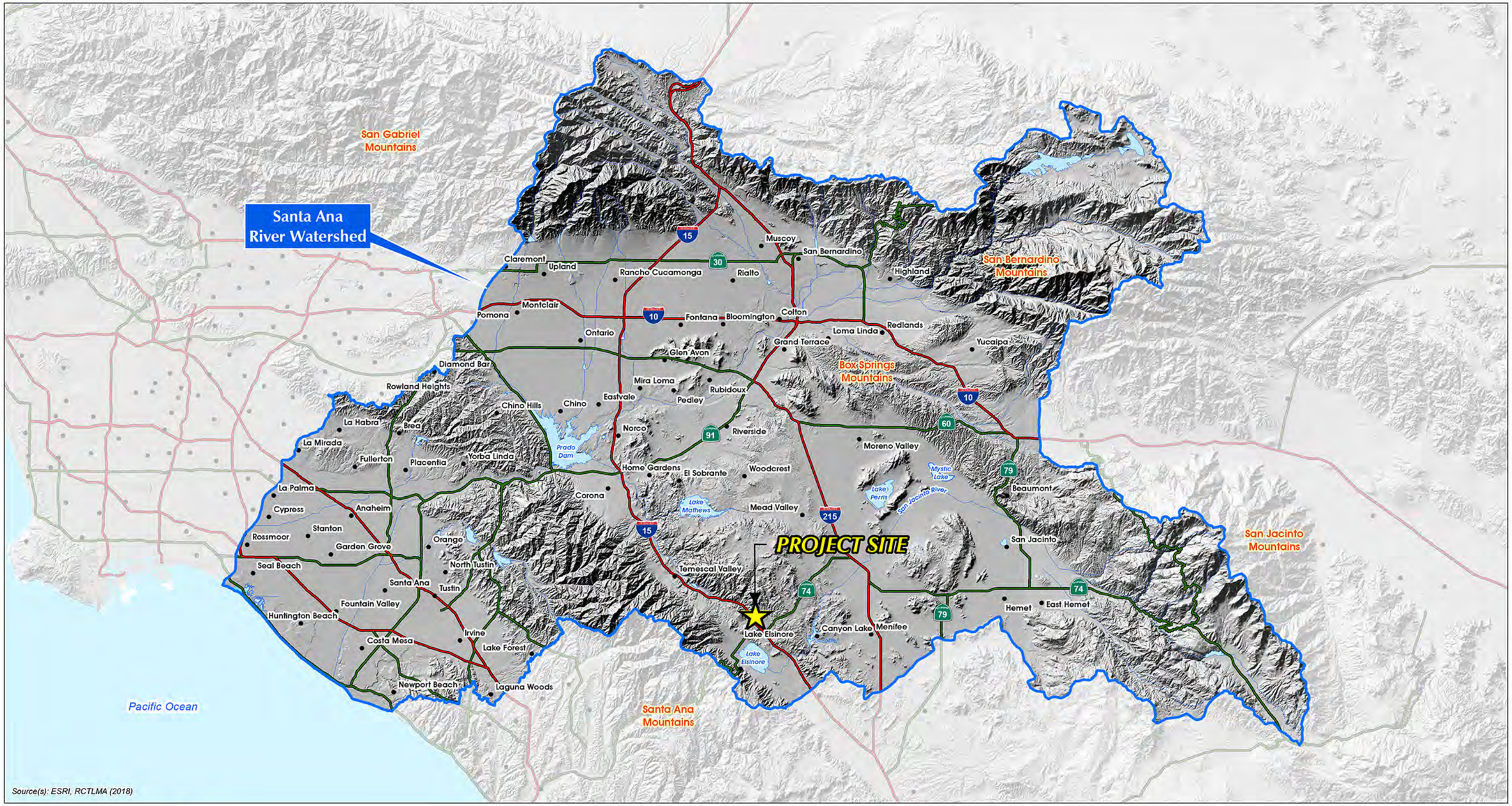
The Project site is located within the Santa Ana River watershed, which drains a 2,650 square-mile area and is the principal surface flow water body within the region. The Santa Ana River rises in Santa Ana Canyon in the southern San Bernardino Mountains and runs southwesterly across San Bernardino, Riverside, and Orange Counties, where it discharges into the Pacific Ocean at the City of Huntington Beach. The total length of the Santa Ana River and its major tributaries is approximately 700 miles (SAWPA, 2014, Ch. 3). The Project site's location within the Santa Ana River Watershed is depicted on Figure 4.9-1, *Santa Ana River Watershed Map*. The Project site is within the Terra Cotta Hydrologic Subarea of the Lake Mathews Hydrologic Area of the Santa Ana River Hydrologic Unit (RWQCB, 2011, p. 4-33).

### B. *Site Hydrology*

The Project site currently consists of vacant, undeveloped land. Topography of the Project site is characterized by relatively flat terrain with elevations ranging from approximately 1,294 feet above mean sea level (amsl) in the southwestern portion of the site to approximately 1,370 feet amsl in the eastern portion of the site; however, following reclamation elevations on-site will range from 1,294 to 1,323 feet amsl. Stovepipe Creek bisects the Project site from the east, and enters the Project site via two 24-inch pipes over a concrete spillway and exits the Project site along the westerly Project boundary via an existing Caltrans 6"x14" reinforced concrete box (RCB) culvert. (Google Earth, 2016; K&A, 2018a, p. 5)

The Project-specific Drainage Report (EIR *Technical Appendix I1*) identifies four (4) existing drainage areas in the Project area under existing conditions (Drainage Areas A, B, C, and D) as depicted on Figure 4.9-2, *Existing On-Site Drainage Conditions*. A description of the four drainage areas present under existing conditions is presented below (K&A, 2018a, p. 5):

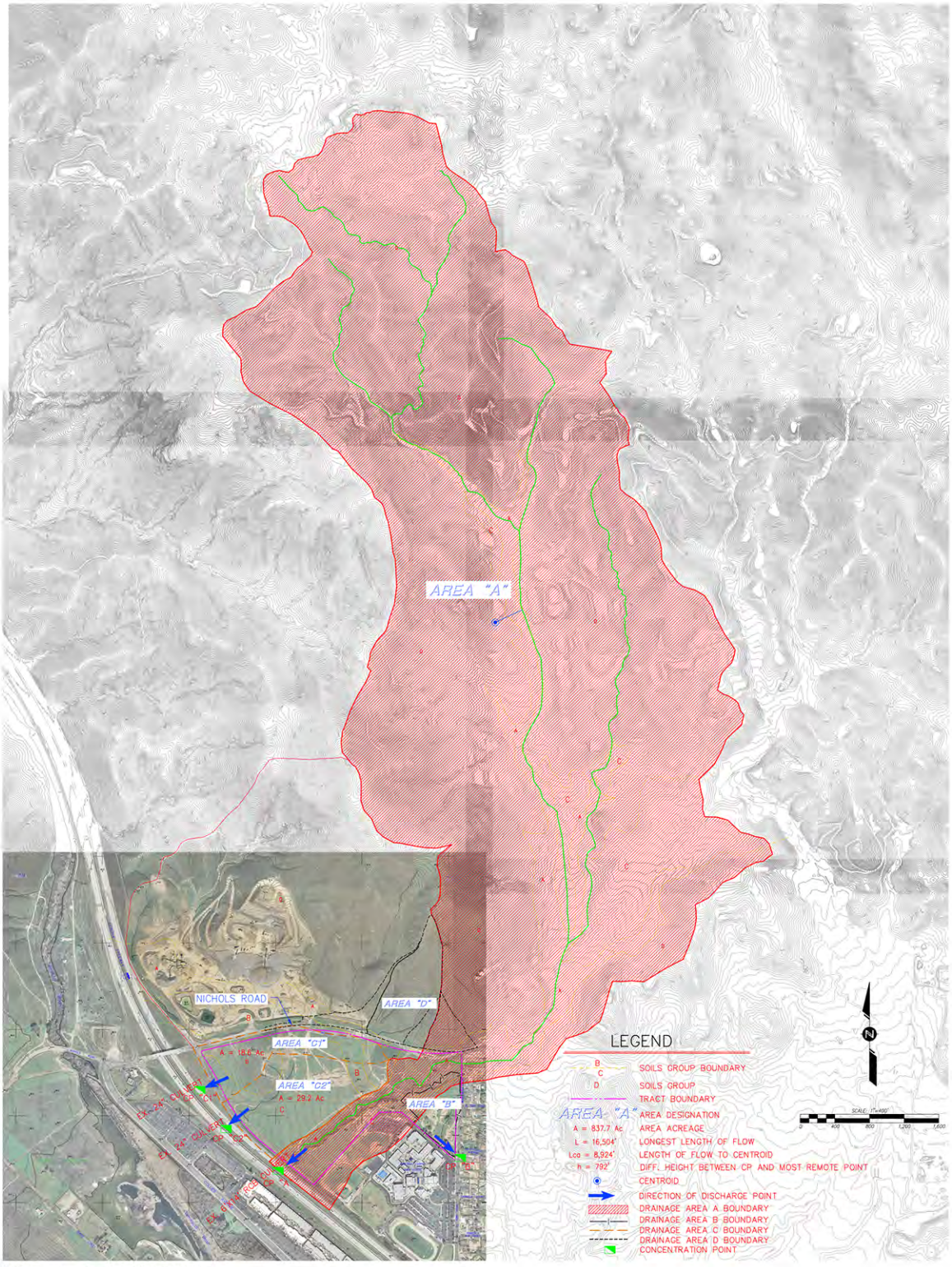
- **Drainage Area A** comprises approximately 837.7 acres and mostly consists of lands located off-site to the north and northeast. Flows from these areas are conveyed towards Stovepipe Creek, which enters the Project site near the eastern boundary via two existing 24" pipes and over a concrete spillway. Stovepipe Creek traverses the Project site in a northeast-to-southwest orientation, and exits the site along the western property line via an existing Caltrans 6'x14' RCB culvert. (K&A, 2018a, p. 5)




Source(s): ESRI, RCTLMA (2018)

Figure 4.9-1

**SANTA ANA RIVER WATERSHED MAP**




*Source(s): K&A Engineering, Inc. (June 2018)*

Figure 4.9-2

NOT TO SCALE

**EXISTING ON-SITE DRAINAGE CONDITIONS**

- **Drainage Area B** is approximately 8.4 acres in size and encompasses the southeast portion of the Project site, and conveys flows to existing drainage facilities within El Toro Road. (K&A, 2018a, p. 5)

- **Drainage Area C** is approximately 47.8 acres and encompasses the northwestern portion of the Project site. Drainage Area C conveys flows to the existing 24" Caltrans culverts along the Nichols Road/ I-15 off-ramp. (K&A, 2018a, p. 5)

- **Drainage Area D** is approximately 25.9 acres and encompasses areas off-site to the north and that are tributary to the portions of Nichols Road that are proposed for improvement by the Project. (K&A, 2018a, p. 5)

### C. *Flood Hazards*

According to the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) No. 06065C2928G, dated August 28, 2008, the majority of the portions of the Project site that are proposed for development are not within a 100-year flood hazard area. The only portion of the Project site located within the 100-year flood hazard area is Stovepipe Creek, which traverses the Project site in a northeast-to-southwest orientation. Stovepipe Creek is located within 'Zone A' of the FEMA FIRM, which indicates that no base flood elevations have been determined, but that the area is within the special flood hazard areas subject to inundation by the 100-year flood. (FEMA, 2008)

The Project site is located approximately 1.7 miles north of a levee associated with Lake Elsinore, and 4.7 miles northwest of the Railroad Canyon Dam. According to the City of Lake Elsinore General Plan EIR, the Project site is located outside of the portion of the City of Lake Elsinore that are subject to inundation in the event of a failure of the Railroad Canyon Dam, which is located northeasterly of the City of Lake Elsinore in the City of Canyon Lake. If a catastrophic failure were to occur at the dam, the water would flow into the San Jacinto River and Lake Elsinore, flooding the portion of the City located southwest of Lakeshore Drive, southeast of Riverside Drive (SR-74), northeast of Grand Avenue, and northwest of Corydon Street. (Lake Elsinore, 2011b, p. 3.9-35). Notwithstanding, and in recognition of the possibility of dam inundation, the Public Safety and Welfare Chapter of the Lake Elsinore General Plan includes the following Policy and Implementation Plan that are specifically intended to minimize the risk of injury and residents and visitors, and property damage due to flooding.

- Policy 5.1: Continue to ensure that new construction in floodways and floodplains conforms to all applicable provisions of the National Flood Insurance Program in order to protect buildings and property from flooding. (Lake Elsinore, 2011a, p. 3-14)
- Implementation Program: Through the project review and the CEQA processes the City shall assess new development and reuse applications for potential flood hazards, and shall require compliance with FEMA Special Flood Hazard Areas where appropriate. (Lake Elsinore, 2011a, p. 3-14)

The Project site is subject to the above-referenced regulations and policies regarding dam inundation.

### D. Water Quality

The Project site is located within the jurisdiction of the Santa Ana Basin Regional Water Quality Control Board (RWQCB). The receiving waters of flows from the Project site include Stovepipe Creek, Temescal Canyon Reach 5/6, Santa Ana River Reach 3, and Santa Ana River Reach 2 (K&A, 2018b, p. 3). The following receiving water of flows from the Project site are listed as "impaired" in accordance with the Clean Water Act 303(d) list regulations: Temescal Canyon Reach 5/6 (impaired by pH), Santa Ana River Reach 3 (impaired by copper, lead, and pathogens), and Santa Ana River Reach 2 (impaired by indicator bacteria). Impairment is typically associated with point and non-point sources of water pollutants including industrial discharge and agricultural operations, respectively. Table 4.9-1, *Receiving Waters for Storm Water Runoff from the Project Site*, lists the receiving waters for storm water runoff from the Project site. The beneficial uses of the receiving surface waters of the Project site are also summarized in Table 4.9-1.

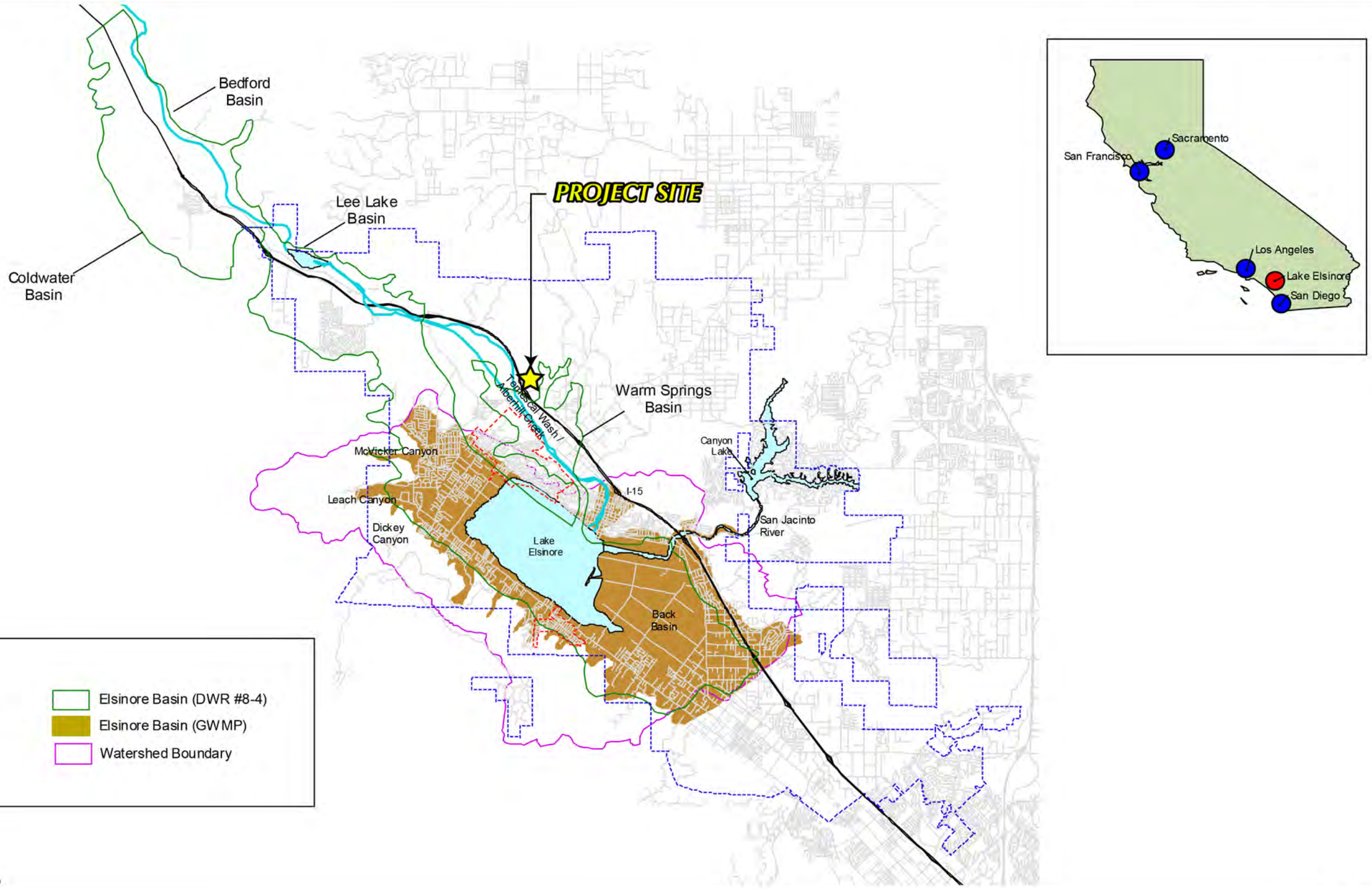
**Table 4.9-1 Receiving Waters for Storm Water Runoff from the Project Site**

| Receiving Waters | EPA Approved 303(d) List Impairments | Designated Beneficial Uses | Proximity to RARE Beneficial Use |
|---|---|---|---|
| | | | |
| Stovepipe Canyon Creek | None | | None |
| Temescal Creek Reach 5/6 | pH | MUN, REC1, REC2, WARM, WILD, AGR, RARE, GWR. | 11 miles |
| Santa Ana River Reach 3 (HU# 801.21) | Copper, Lead, Pathogens | AGR, GWR, REC1, REC2, WARM, WILD, RARE, SPWN | 18 miles |
| Santa Ana River Reach 2 (HU# 801.13) | Indicator Bacteria | AGR, GWR, REC1, REC2, WARM, WILD, RARE, MUN, SPWN | 20 miles |

AGR=Agricultural Supply; GWR=Groundwater Recharge; MUN=Municipal and Domestic Supply; REC1=Water Contact Recreation; REC2=Noncontact Water Recreation; RARE=Preservation of Rare and Endangered Species; SPWN=Fish Spawning; WARM=Warm Freshwater Habitat; WILD=Wildlife Habitat
(K&A, 2018b, Table A.1)

### E. Groundwater

As shown in Figure 4.9-3, *Groundwater Basins*, the Project site is located immediately adjacent to the Elsinore Groundwater Basin (Lake Elsinore, 2011b. p. 3.9-5; EVWMD, 2005). Almost all of the groundwater production that is used for potable use by the EVWMD occurs in the Elsinore Basin (EVWMD, 2016c, p. 5). Inflows to Elsinore Basin include infiltration of local precipitation, runoff from the surrounding watershed, infiltration from the San Jacinto River prior to reaching Lake Elsinore, and return flows from either irrigation or domestic use. Natural groundwater inflow is almost equal to the average yield of the Basin because there are no natural outflows from the Basin. Groundwater pumping to meet water demands accounts for essentially




*Source(s): Elsinore Basin Groundwater Management Plan (2005)*

Figure 4.9-3

NOT TO SCALE

**GROUNDWATER BASINS**

the entire outflow from the Basin. (EVWMD, 2016c, p. 4-11) In addition to the Elsinore Basin, EVWMD has access to groundwater from the Coldwater Basin, San Bernardino Bunker Hill Basin, Rialto-Colton and the Riverside-North Basin. See EIR Section 4.17, *Utilities and Service Systems*, for more detail on the groundwater resources utilized by EVMWD.

The Project's Geotechnical Report, contained in this EIR as *Technical Appendix D*, states that groundwater was not encountered within the maximum 51.5-foot depth below ground surface (bgs) during the subsurface evaluation. Previous investigations by Geotechnics, Inc. conducted in 2005 reported groundwater as seepage in bedrock or perched on clay layers at depths ranging from 18 to 35 feet bgs. The depth to groundwater on the Project site is likely to vary seasonally, and perched groundwater may occur at the soil-bedrock contact. The Project's Geotechnical Report estimated the historic high groundwater level to be 40 feet bgs. The 40-foot historic high is consistent with the depth to groundwater of approximately 40 feet depicted historic contours for the area. (Terracon, 2018a, pp. 6-7)

## 4.9.2 Applicable Environmental Regulations

The following is a brief description of the federal, state, and local environmental laws and related regulations related to hydrology and water quality.

### *A. Federal Regulations*

#### *1. Clean Water Act*

The Clean Water Act (CWA) establishes the basic structure for regulating discharges of pollutants into the waters of the United States and regulating quality standards for surface waters. The basis of the CWA was enacted in 1948 and was called the Federal Water Pollution Control Act, but the Act was substantially reorganized and expanded in 1972. "Clean Water Act" became the Act's common name with amendments in 1972. Under the CWA, the Environmental Protection Agency (EPA) has implemented pollution control programs such as setting wastewater standards for industry, and also has set water quality standards for all contaminants in surface waters. The CWA made it unlawful to discharge any pollutant from a point source into navigable waters, unless a permit was obtained. EPA's National Pollutant Discharge Elimination System (NPDES) permit program controls discharges. Point sources are discrete conveyances such as pipes or man-made ditches. Individual homes that are connected to a municipal system, use a septic system, or do not have a surface discharge do not need an NPDES permit; however, industrial, municipal, and other facilities must obtain permits if their discharges go directly to surface waters. (EPA, 2018a)

#### *2. Federal Flood Insurance Program*

The U.S. Congress established the National Flood Insurance Program (NFIP) with the passage of the National Flood Insurance Act of 1968. The NFIP is a Federal program enabling property owners in participating communities to purchase insurance as a protection against flood losses in exchange for State and community floodplain management regulations that reduce future flood damages. Participation in the NFIP is based on an agreement between communities and the Federal Government. If a community adopts and enforces a floodplain management ordinance to reduce future flood risk to new construction in floodplains, the Federal Government will make flood insurance available within the community as a financial protection against flood losses. This insurance is designed to provide an insurance alternative to disaster assistance to reduce the

escalating costs of repairing damage to buildings and their contents caused by floods. The Federal Insurance and Mitigation Administration (FIMA) within the Federal Emergency Management Agency (FEMA) is responsible for administering the National Flood Insurance Program (NFIP) and administering programs that provide assistance for mitigating future damages from natural hazards. (FEMA, 2002)

### *3. Executive Order 11988 – Floodplain Management*

Executive Order 11988 requires federal agencies to avoid to the extent possible the long- and short-term adverse impacts associated with the occupancy and modification of flood plains and to avoid direct and indirect support of floodplain development wherever there is a practicable alternative. In accomplishing this objective, "each agency shall provide leadership and shall take action to reduce the risk of flood loss, to minimize the impact of floods on human safety, health, and welfare, and to restore and preserve the natural and beneficial values served by flood plains in carrying out its responsibilities" for the following actions:

- acquiring, managing, and disposing of federal lands and facilities;
- providing federally-undertaken, financed, or assisted construction and improvements; and
- conducting federal activities and programs affecting land use, including but not limited to water and related land resources planning, regulation, and licensing activities. (FEMA, 2015)

## *B. State Regulations*

### *1. Porter-Cologne Water Control Act*

The Porter-Cologne Act is the principal law governing water quality regulation in California. It establishes a comprehensive program to protect water quality and the beneficial uses of water. The Porter-Cologne Act applies to surface waters, wetlands, and ground water and to both point and nonpoint sources of pollution. Pursuant to the Porter-Cologne Act (California Water Code § 13000 et seq.), the policy of the State is as follows:

- That the quality of all the waters of the State shall be protected;
- That all activities and factors affecting the quality of water shall be regulated to attain the highest water quality within reason; and
- That the State must be prepared to exercise its full power and jurisdiction to protect the quality of water in the State from degradation. (SWRCB, 2014)

The Porter-Cologne Act established nine Regional Water Boards (based on hydrogeologic barriers) and the State Water Board, which are charged with implementing its provisions and which have primary responsibility for protecting water quality in California. The State Water Board provides program guidance and oversight, allocates funds, and reviews Regional Water Boards decisions. In addition, the State Water Board allocates rights to the use of surface water. The Regional Water Boards have primary responsibility for individual permitting, inspection, and enforcement actions within each of nine hydrologic regions. The State Water Board and Regional Water Boards have numerous non-point source (NPS) related responsibilities, including monitoring and assessment, planning, financial assistance, and management. (SWRCB, 2014)

The Regional Water Boards regulate discharges under the Porter-Cologne Act primarily through issuance of NPDES permits for point source discharges and waste discharge requirements (WDRs) for NPS discharges. Anyone discharging or proposing to discharge materials that could affect water quality (other than to a community sanitary sewer system regulated by an NPDES permit) must file a report of waste discharge. The Storm Water Resources Control Board (SWRCB) and the Regional Water Quality Control Boards (RWQCBs) can make their own investigations or may require dischargers to carry out water quality investigations and report on water quality issues. The Porter-Cologne Act provides several options for enforcing WDRs and other orders, including cease and desist orders, cleanup and abatement orders, administrative civil liability orders, civil court actions, and criminal prosecutions. (SWRCB, 2014)

The Porter-Cologne Act also implements many provisions of the Clean Water Act, such as the NPDES permitting program. The Porter-Cologne Act also requires adoption of water quality control plans that contain the guiding policies of water pollution management in California. In addition, regional water quality control plans (basin plans) have been adopted by each of the Regional Water Boards and get updated as necessary and practical. These plans identify the existing and potential beneficial uses of waters of the State and establish water quality objectives to protect these uses. The basin plans also contain implementation, surveillance, and monitoring plans. (SWRCB, 2014) The Project site is located in the Santa Ana River Watershed, which is within the purview of Santa Ana Basin RWQCB. The Santa Ana Basin RWQCB Basin Plan is the governing water quality plan for the region.

### *2. California Water Code*

The California Water Code is the principal state law regulating water quality in California. Water quality provisions must be complied with as contained in numerous code sections including: 1) the Health and Safety Code for the protection of ground and surface waters from hazardous waste and other toxic substances; 2) the Fish and Game Code for the prevention of unauthorized diversions of any surface water and discharge of any substance that may be deleterious to fish, plant, animal, or bird life; 3) the Harbors and Navigation Code for the prevention of the unauthorized discharge of waste from vessels into surface waters; and 4) the Food and Agriculture Code for the protection of groundwater which may be used for drinking water supplies. The California Department of Fish and Wildlife (CDFW), through provisions of the Fish & Game Code (§§ 1601 - 1603) is empowered to issue agreements for any alteration of a river, stream, or lake where fish or wildlife resources may be adversely affected. CDFW regulates wetland areas only to the extent that those wetlands are part of a river, stream, or lake as defined by CDFW.

Surface water quality is the responsibility of the Regional Water Quality Control Board (RWQCB), water supply and wastewater treatment agencies, and city and county governments. The principal means of enforcement by the RWQCB is through the development, adoption, and issuance of water discharge permits. RWQCB basin plans establish water quality objectives that are defined as the limits or levels of water quality constituents or characteristics for the reasonable protection of beneficial uses of water.

### *3. California Toxics Rule (CTR)*

The California Toxics Rule (CTR) fills gap in California's water quality standards necessary to protect human health and aquatic life beneficial uses. The CTR criteria are similar to those published in the National Recommended Water Quality Criteria. The CTR supplements, and does not change or supersede, the criteria

that EPA promulgated for California waters in the National Toxics Rule (NTR). The human health NTR and CTR criteria that apply to drinking water sources (those water bodies designated in the Basin Plans as municipal and domestic supply) consider chemical exposure through consumption of both water and aquatic organisms (fish and shellfish) harvested from the water. For waters that are not drinking water sources (e.g., enclosed bays and estuaries), human health NTR and CTR criteria only consider the consumption of contaminated aquatic organisms. The CTR and NTR criteria, along with the beneficial use designations in the Basin Plans and the related implementation policies, are the directly applicable water quality standards for toxic priority pollutants in California waters. (SWRCB, 2016, pp. 14-15)

### *4. CDFG Code Section 1600 et seq. (Lake- or Streambed Alteration Agreement Program)*

Fish and Game Code § 1602 requires an entity to notify CDFW prior to commencing any activity that may do one or more of the following:

- Substantially divert or obstruct the natural flow of any river, stream, or lake;
- Substantially change or use any material from the bed, channel or bank of any river, stream, or lake; or
- Deposit debris, waste or other materials that could pass into any river, stream, or lake. (CDFW, n.d)

It should be noted that "any river, stream or lake" includes those that are episodic (they are dry for periods of time) as well as those that are perennial (they flow year-round). This includes ephemeral streams, desert washes, and watercourses with a subsurface flow. It may also apply to work undertaken within the flood plain of a body of water. (CDFW, n.d)

CDFW requires a Lake and Streambed Alteration (LSA) Agreement when it determines that the activity, as described in a complete LSA Notification, may substantially adversely affect existing fish or wildlife resources. An LSA Agreement includes measures necessary to protect existing fish and wildlife resources. CDFW may suggest ways to modify a project that would eliminate or reduce harmful impacts to fish and wildlife resources. Before issuing an LSA Agreement, CDFW must comply with CEQA. (CDFW, n.d)

### *5. Watershed Management Initiative (WMI)*

The State and Regional Water Boards are currently focused on looking at entire watersheds when addressing water pollution. The Water Boards adopted the Watershed Management Initiative (WMI) to further their goals. The WMI establishes a broad framework overlying the numerous federal and State mandated priorities. As such, the WMI helps the Water Boards achieve water resource protection, enhancement and restoration while balancing economic and environmental impacts. (SWRCB, 2017) The integrated approach of the WMI involves three main ideas:

- Use water quality to identify and prioritize water resource problems within individual watersheds. Involve stakeholders to develop solutions.

- Better coordinate point source and nonpoint source regulatory efforts. Establish working relationships between staff from different programs.

- Better coordinate local, state, and federal activities and programs, especially those relating to regulations and funding, to assist local watershed groups. (SWRCB, 2017)

### C. *Local Regulations*

#### 1. *City of Lake Elsinore Municipal Code Chapter 14.08*

City of Lake Elsinore Municipal Code Chapter 14.08, *Stormwater/Urban Runoff Management and Discharge Controls*, intends to protect and enhance the water quality of City watercourses, water bodies, groundwater, and wetlands in a manner pursuant to and consistent with the California Water Code Section 13000 et seq. (Porter-Cologne Water Quality Control Act), Title 33 U.S.C. Sections 1251 et seq. (Federal Clean Water Act). (Lake Elsinore, 2018, Chapter 14.08)

#### 2. *City of Lake Elsinore Municipal Code Chapter 15.64*

City of Lake Elsinore Municipal Code Chapter 15.64, *Flood Damage Prevention*, includes flood load and flood-resistant construction requirements of the building codes and is intended to promote the public health, safety and general welfare and to minimize public and private losses due to flood conditions in specific flood hazard areas through the establishment of comprehensive regulations for management of flood hazard areas. (Lake Elsinore, 2018, Chapter 15.64)

## 4.9.3 BASIS FOR DETERMINING SIGNIFICANCE

The proposed Project would result in a significant impact to hydrology and water quality if the Project or any Project-related component would:

*a. Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality;*

*b. Substantially decrease groundwater supplies or interfere with groundwater recharge such that the Project may impede sustainable groundwater management of the basin;*

*c. 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:*

*i) Result in substantial erosion or siltation on- or off-site;*
*ii) Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;*
*iii) 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*
*iv) Impede or redirect flood flows;*

*d. In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation; or*

*e. Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.*

The above listed thresholds are derived directly from Section X of Appendix G to the CEQA Guidelines and address typical adverse effects to hydrology and water quality (OPR, 2018).

## 4.9.4 IMPACT ANALYSIS

***Threshold a:*** ***Would the Project violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?***

### *A. Construction-Related Water Quality Impacts*

Grading and construction of the proposed Project would involve substantial ground disturbance resulting in the generation of pollutants such as silt, debris, chemicals, paints, and other solvents potentially affecting water quality. As such, short-term water quality impacts would likely occur in the absence of any protective or avoidance measures.

Pursuant to requirements of the SWRCB, the Project Applicant is required to obtain an NPDES permit for construction activities. The NPDES permit is required for all projects that include construction activities, such as clearing, grading, and/or excavation that disturb at least one (1) acre of total land area. Compliance with the NPDES permit involves the preparation and implementation of a storm water pollution prevention plan (SWPPP) for construction-related activities. The SWPPP would specify Best Management Practices (BMPs) to minimize pollutants in storm water runoff, as well as non-storm water discharges. Typical measures employed during construction include the use of water trucks to minimize erosion; use of straw bale barriers; stabilizing construction entrances; hydroseeding, etc. The implementation of this plan would serve to prevent and/or minimize discharge of additional sources of polluted runoff and hence, protect water quality. Therefore, the Project would not violate any water quality standards or waste discharge requirements during construction, and water quality impacts associated with construction activities would be less than significant requiring no mitigation beyond compliance with the mandatory regulatory requirements (i.e., implementation of BMPs from a Project-specific SWPPP) described herein.

### *B. Post-Development Water Quality Impacts*

Implementation of the proposed Project would permanently alter the amount of impervious surfaces as a result of newly constructed roadways, structures, and other paved surfaces such as driveways, walkways, parking lots, and other residential- and commercial-related hardscape. As a result, there would be an increase in storm water runoff when compared with existing conditions. This runoff would contain such urban pollutants as tire-wear residues; petroleum products such as oil and grease; landscaping fertilizer and pesticides; as well as litter and other types of wastes. Other potential sources of urban pollutants include bacterial indicators, metals, nutrients, possible pesticides from landscape maintenance activities, toxic organic compounds, sediments, trash/debris, oil, and grease (K&A, 2018b, pp. 2-3). The pollutants are washed off from the street surfaces by a rainfall adequate to produce sufficient runoff. The EPA has identified street surfaces as the primary source of pollution in urban areas, and such runoff is considered to be a “non-point” source. Unlike “point” source wastes, non-point sources cannot be quantified through flow measurement, sampling, and analysis techniques. This runoff, typical of urban use, would contribute to the incremental degradation of the water quality downstream. This would be regarded as a significant cumulative water quality impact.

Compliance with the City's NPDES permit requirements, as stipulated in the CWA, would reduce impacts to water quality associated with Project-related activities. The NPDES permit requires the preparation of a post-construction management program, such as a WQMP, to ensure ongoing protection of the watershed basin by requiring structural and programmatic controls. A WQMP (EIR *Technical Appendix I2*) was prepared for the proposed Project and identifies non-structural and structural source controls as well as Project design features and BMPs. Structural controls include planning the location of inlets; showing locations of native trees or areas of shrubs and groundcover to be undisturbed and retained; showing proposed native trees or areas of shrubs and ground cover; showing location of water feature and a sanitary sewer cleanout in an accessible area within 10 feet; proper handling, storage, and regular pickup of site refuse and recycled materials; designing roofs to discharge runoff to adjoining landscaping; avoiding roofing, gutters, and trim made of copper or other unprotected metals that may leach into runoff; implementing minimal driveway widths; protecting slopes and channels; landscaping hillsides; and effective irrigation.

Non-structural source controls include: maintenance of inlet markings; education of property owners, tenants, and occupants; limiting the use of pesticides; activity restrictions; irrigation system and landscape maintenance/management; maintenance of pools, spas, and decorative fountains; common area litter control; prohibit/prevent dumping of liquids or hazardous wastes; fire sprinkler tests; sweeping of plazas, sidewalks, and parking lots regularly; and drainage facility inspection/maintenance. The Project's WQMP also outlines the long-term funding mechanisms and contractual obligations for the operation and maintenance of the Project's water quality features. The on-site drainage basins would be maintained by the City of Lake Elsinore through a Landscape Maintenance District (LMD) and the Nichols Ranch Home Owners' Association (HOA). (K&A, 2018b, pp. 31-35)

The Project's WQMP has been prepared in accordance with the Santa Ana Region Hydromodification Management Plan and City of Lake Elsinore requirements. The proposed storm drain design is shown in Figure 3-4, *Drainage Plan*, and was developed to maintain existing drainage patterns to the maximum extent practicable. The system collects flows generated on-site and flows generated off-site that are tributary to the Project site and conveys the flows via an underground storm water drain system to two (2) on-site drainage basins for treatment. Drainage basins are proposed to capture and treat the flows from tributary areas. These primary design features minimize urban runoff, limit the impervious footprint, maximize water conservation areas, and minimize the connection of impervious areas. These design measures are intended to capture first flush flows, defined as the first 0.75-inch of precipitation from storm events, which represents the initial surface runoff from a storm event containing a typically higher concentration of pollutants. All basins and storm drain facilities necessary for each phase of development would be built prior to the construction of any residential homes or commercial uses for each phase of development. Thus, at any stage of the proposed Project, the storm drain facilities would have more capacity than needed until final Project build-out. Adherence to statutory requirements would ensure that water quality and waste discharge requirements are not violated. As such, with respect to the potential to violate water quality standards and waste discharge requirements and further degrade existing surface or ground water quality, or otherwise substantially degrade water quality, long-term operation of the Project would result in less-than-significant impacts.

***Threshold b:*** ***Would the Project substantially decrease groundwater supplies or interfere with groundwater recharge such that the Project may impede sustainable groundwater management of the basin?***

No potable groundwater wells are proposed by the Project. In addition, there are no active or inactive water wells located on the Project site. The Project site would receive potable water from the Elsinore Valley Municipal Water District (EVMWD), which relies on water supplies from the Elsinore Groundwater Basin and the Coldwater Groundwater Basin; however, water supplies are primarily imported from the Metropolitan Water District through the Western Municipal Water District (EVMWD, 2016c, p. 6-1). Local potable groundwater accounts for approximately 33% of the water supply. It is anticipated that water demands as a result of future development would be met through a combination of additional surface water, groundwater, recycled water, and through enhanced water conservation. The additional groundwater sources would be sufficient to meet the projected demand through the year 2040, and no additional groundwater sources beyond those previously identified would be required to meet water demands (EVMWD, 2016c, pp. 7-8, 7-9). Thus, the Project would not substantially deplete groundwater and impacts would be less than significant. For a detailed discussion of water supply and demand, refer to Subsection 4.17, *Utilities and Service Systems*.

The Elsinore Valley is underlain by the Elsinore Groundwater Basin, as shown in Figure 4.9-3 (Lake Elsinore, 2011b. p. 3.9-5). The Elsinore Groundwater Basin is bounded on the southwest by the Santa and Elsinore Mountains along the Willard fault, in the northwest by the Temescal Sub basin of the Upper Santa Ana River Valley Groundwater Basin, and bounded in the northeast by the Peninsular Rangers along the Glen Ivy Fault (DWR, 2006, p. 1). With development of the Project site, the site's existing undeveloped character would be converted to that of a residential and commercial development. As a result of this conversion, impervious surfaces would be introduced to the site which could adversely affect groundwater recharge that occurs under existing conditions. As shown on Figure 4.9-4, *Proposed Drainage Conditions*, and Table 4.9-2, *Existing vs. Proposed Drainage Conditions*, the Project would reduce 2-year 24-hour peak flow from the Project site under post-development conditions by up to 28 percent in Drainage Area A and 37.5 percent in Drainage Area B. However, the total amount of water leaving the Project site under post-development conditions would be similar to existing conditions, as all runoff from the Project site would ultimately discharge to the receiving waters listed in Table 4.9-1. Thus, because the Project would not affect the total flows leaving the site, the Project has no potential to result in indirect impacts due to interference with groundwater recharge that occurs downstream. As indicated in the discussion and analysis of Threshold a, above, the proposed Project has been designed to incorporate two (2) drainage basins on-site. These design features would attenuate post-development runoff in a manner consistent with Riverside County Flood Control and Water Conservation District (RCFCWCD) requirements that are applicable to the Project site. Accordingly, the proposed Project would not substantially decrease groundwater supplies, substantially interfere with groundwater recharge, result in substantial changes in the rate or amount of surface runoff, or interfere with sustainable groundwater management of the Elsinore Groundwater Basin, and a less-than-significant impact would occur.

**Drainage Area B – existing (8.4 Ac), proposed (8.4 Ac)**

| Storm Frequency | Existing $Q_{100}$ (cfs) [1] | Proposed $Q_{100}$ (cfs) | Det. Basin Outlet $Q_{100}$ (cfs) [2] | Different [2] – [1] (cfs) | Different [2] – [1] (%) |
|---|---|---|---|---|---|
| 100-year 1-hour | 24.57 | 26.34 | 9.81 | -14.76 | -60% |
| 100-year 3-hour | 15.27 | 16.60 | 12.29 | -2.98 | -19.5% |
| 100-year 6-hour | 13.76 | 15.46 | 12.08 | -1.68 | -12.2% |
| 100-year 24-hour | 6.09 | 6.54 | 6.35 | 0.26 | 4.2% |

**Summary of Hydrographs, 1-hour, -3hour, -6, hour and -24 hour 100-year storm:**
**Drainage Area A – existing (40.1 Ac), proposed (40.1 Ac)**

| Storm Frequency | Existing $Q_{100}$ (cfs) [1] | Proposed $Q_{100}$ (cfs) | Det. Basin Outlet $Q_{100}$ (cfs) [2] | Different [2] – [1] (cfs) | Different [2] – [1] (%) |
|---|---|---|---|---|---|
| 100-year 1-hour | 94.27 | 120.95 | 13.20 | -81.07 | -86% |
| 100-year 3-hour | 67.65 | 76.06 | 20.49 | -47.16 | -70% |
| 100-year 6-hour | 62.58 | 67.99 | 32.45 | -30.13 | -48% |
| 100-year 24-hour | 29.03 | 31.62 | 23.08 | -5.95 | -20% |

**Drainage Area C1 – existing (18.6 Ac), proposed (9.5 Ac)**
**Drainage Area C2 – existing (29.2 Ac), proposed (8 Ac)**

| Area | Existing $Q_{100}$ (cfs) [1] | Proposed $Q_{100}$ (cfs) [2] | Different [2] – [1] (cfs) | Different [2] – [1] (%) |
|---|---|---|---|---|
| C-1 | 42.04 | 25.88 | -16.16 | -38% |
| C-2 | 65.99 | 22.49 | -43.50 | -66% |

**ONSITE HYDROLOGY**
**Nichols Road - Tract 37305**

| AREA | ACRE (Ac) | Q100 = cfs/Ac *) | Q100 (cfs) | Main Line Q100 (cfs) | Main Line Pipe Size (slope 1%) |
|---|---|---|---|---|---|
| A-1 | 2.85 | 3.02 | 8.61 | | |
| A-2 | 1.87 | 3.02 | 5.65 | 14.25 | 24" |
| A-3 | 5.19 | 3.02 | 15.67 | 29.93 | 30" |
| A-4 | 0.89 | 3.02 | 2.69 | 32.62 | 30" |
| A-5 | 0.69 | 3.02 | 2.08 | | |
| A-6 | 2.86 | 3.02 | 8.64 | 10.72 | 24" |
| A-7 | 2.81 | 3.02 | 8.49 | 19.21 | 24" |
| A-8 | 1.43 | 3.02 | 4.32 | 23.53 | 30" |
| A-9 | 1.55 | 3.02 | 4.68 | 28.21 | 30" |
| A-10 | 2.02 | 3.02 | 6.10 | 34.31 | 30" |
| A-11 | 2.05 | 3.02 | 6.19 | 40.50 | 36" |
| A-12 | 1.34 | 3.02 | 4.05 | 44.55 | 36" |
| A-13 | 1.47 | 3.02 | 4.44 | 48.98 | 36" |
| C-1a | 5.5 | 3.02 | 16.61 | **) | Ex. 24" Caltrans |
| C-2a | 5.8 | 3.02 | 17.52 | **) | Ex. 24" Caltrans |
| A-14 | 12.77 | 3.02 | 38.57 | 38.57 | 36" |

*) Based on Area A (40.1 Ac) Hydrograph peak 100-year 1-hour = 120.95 cfs ==> 3.02 cfs/Ac
**) Low flow from Areas C-1a and C-2a drain into Sand Filter Basin A

NICHOLS ROAD

AREA "C-1"
5.5 Ac, Q100 = 16.6 cfs
LOW FLOW DRAIN TO SWF WQ BASIN A2
Q100 DRAIN TO EXISTING 24" CALTRANS CULVERT

AREA "C-2"
5.8 Ac, Q100 = 17.5 cfs
LOW FLOW DRAIN TO SWF WQ BASIN A2
Q100 DRAIN TO EXISTING 24" CALTRANS CULVERT

AREA "A"

Prop. CULVERT
Q100 = 918 cfs
Q10 = 606 cfs

AREA "B"
A = 8.4 Ac
V = 40'/s
Leq = 414'
S = 1%

Ex. 24" CALTRANS CULVERT

Ex. 24" CALTRANS CULVERT

Ex. 24" CALTRANS CULVERT

Proposed 24"/30" RCP

LEGEND

- B / C / D SOILS GROUP BOUNDARY
- SOILS GROUP
- TRACT BOUNDARY
- AREA DESIGNATION
- Drainage Sub Area Designation
- D-3 / 0.26 Sub Area Acreage
- DRAINAGE AREA A BOUNDARY
- WQ BASIN "A1"
- WQ BASIN "A2"
- DETENTION BASIN "A"
- DRAINAGE AREA B BOUNDARY
- WQ BASIN "B"

*Source(s): K&A Engineering, Inc. (June 2018)*

Figure 4.9-4

NOT TO SCALE

**PROPOSED DRAINAGE CONDITIONS**

Table 4.9-2 Existing vs. Proposed Drainage Conditions

**Drainage Area A – existing (51.4 Ac), proposed (51.4 Ac)**

| Storm Frequency | Existing $Q_2$ (cfs) [1] | Proposed $Q_2$ (cfs) | Det. Basin Outlet $Q_2$ (cfs) [2] | Different [2] – [1] (cfs) | Different [2] – [1] (%) |
|---|---|---|---|---|---|
| | | | | | |
| 2-year 24-hour | 9.37 | 13.12 | 6.75 | -2.62 | -28% |
| | | | | | |

**Drainage Area B – existing (8.4 Ac), proposed (8.4 Ac)**

| Storm Frequency | Existing $Q_2$ (cfs) [1] | Proposed $Q_2$ (cfs) | Det. Basin Outlet $Q_2$ (cfs) [2] | Different [2] – [1] (cfs) | Different [2] – [1] (%) |
|---|---|---|---|---|---|
| | | | | | |
| 2-year 24-hour | 1.52 | 1.97 | 0.95 | -0.57 | -37.5% |
| | | | | | |

(K&A, 2018a, p. 28)

***Threshold c:*** ***Would the Project 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:***

***i) Result in substantial erosion or siltation on- or off-site;***

***ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;***

***iii) 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***

***iv) Impede or redirect flood flows?***

### *A. Erosion and Siltation Impacts*

As shown on EIR Figure 3-9, *Conceptual Grading Plan*, the Project has been designed to generally maintain the existing topography of the site, with minor modifications as necessary to accommodate site development and proposed drainage conditions. Nonetheless, construction of the proposed Project would involve substantial ground disturbance during clearing and grading of the site. In addition, on-site erosion could occur if graded slopes are not stabilized prior to ultimate development or landscaping. The proposed grading activities would generate fair amounts of silt which could be carried off-site during a heavy rainfall event. Should such an event occur in the absence of any preventative measures to contain silt and other soils on-site, erosion and/or siltation downstream would result.

However, pursuant to requirements of the SWRCB, the Project Applicant would be required to obtain a NPDES permit for construction activities on-site. The NPDES permit is required for all projects that include construction activities, such as clearing, grading, and/or excavation that disturb at least one (1) acre of total

land area. Compliance with the NPDES permit involves the preparation and implementation of a SWPPP for construction-related activities. The SWPPP would specify BMPs to minimize the potential for erosion and siltation to occur and would include specific Project site measures to address the potential for the caving in of temporary excavations. Typical BMPs that are implemented at construction sites to protect water quality include the implementation of straw bale barriers, plastic sheeting/erosion control blankets, and outlet protection measures. With mandatory adherence to the SWPPP requirements, effects associated with erosion, siltation, water quality, and flooding on downstream water sources and flood control systems would be maintained at a level below significance.

With respect to the Project's proposed drainage plan, Figure 4.9-2, previously presented, depicts the Project site's existing drainage areas, while Figure 4.9-4, previously presented, presents the Project's proposed drainage areas and proposed drainage patterns. Table 4.9-2, previously presented, shows the differences in peak flow rates of discharge from the Project site (via Stovepipe Creek through an existing Caltrans 6'x14' RCB culvert and existing drainage facilities in El Toro Road) under existing and proposed conditions. As shown in Table 4.9-2, under post-development conditions, 100-year peak storm flows would be reduced compared to existing conditions. The Project's drainage plan has been designed to maintain existing drainage patterns to the maximum extent practicable, and all runoff from the Project site discharges to either the existing Caltrans RCB culvert located along the westerly Project boundary via Stovepipe Creek or existing drainage facilities in El Toro Road which both ultimately discharge to the receiving waters listed in Table 4.9-1. The proposed drainage plan was previously depicted on EIR Figure 3-4 and utilizes natural water flow patterns to the extent feasible.

The Project proposes two (2) drainage basins, an underground storm drain system, and streets with curb opening catch basins to convey storm water flows through the Project site and towards the proposed drainage basins. The four (4) drainage areas proposed on-site and the two (2) proposed drainage basins are detailed below:

- **Drainage Area A.** Drainage Area A would consist of 889.1 acres of land which would be divided into three drainage sub-areas, including Drainage Areas A, A-1, and A-2. Drainage Area A would include 837.7 acres of off-site lands northeast of the Project site including the area tributary to Stovepipe Creek. Drainage Area A-1 would include 27.03 acres tributary to the proposed residential area. Drainage Area A-2 would include 24.37 acres tributary to the proposed commercial site and proposed Nichols Road area. Under post-development conditions, the 837.7-acre portion of Drainage Area A that includes off-site areas tributary to Stovepipe Creek would continue to enter the Project site via two 24-inch pipes and over the concrete spillway and would continue to drain to the existing 6'x14' Caltrans RCB culvert. Drainage Area A-1 would drain into proposed Extended Drainage Basin A1 to mitigate water quality and peak flow rates and would outlet into Drainage Basin A. Drainage A-2 would drain into a proposed sand filter basin to mitigated water quality impacts and outlet into Detention Basin A to mitigate water quality and the increase in peak flow from the proposed Project prior to draining into Stovepipe Creek. (K&A, 2018a, p. 7)

- **Drainage Area B.** Drainage Area B would consist of approximately 8.4 acres of the southeastern portion of the Project site, south of Stovepipe Creek. Under post-development conditions, Drainage

Area B would drain into a proposed enhanced sand filter and would outlet into Drainage Basin B and would then outlet through a parkway drain to existing drainage facilities El Toro Road. (K&A, 2018a, p. 7)

- **Drainage Area C.** Drainage Area C would consist of approximately 17.2 acres of the northwestern portion of the project site, north of Stovepipe Creek. Drainage Area C is separated into two sub-areas, including Drainage Areas C-1 and C-2. Drainage Area C-1 consists of 9.2 acres, of which approximately 5.5 acres of is tributary to the proposed commercial site and 3.7 acres includes existing areas which were originally tributary to the off-site existing 24-inch Caltrans culvert. Drainage Area C-2 consists of approximately 8.0 acres, of which 5.8 acres is tributary to the proposed commercial site and 2.2 acres includes existing areas which were originally tributary to the existing off-site 24-inch Caltrans culvert. (K&A, 2018a, p. 7)

- **Drainage Area D.** Drainage Area D would consist of approximately 25.9 acres of the off-site area north of the Project site. Drainage Area D is tributary to proposed storm drain facilities in Nichols Road. (K&A, 2018a, p. 7)

Based on the proposed drainage facilities described above and the analysis demonstrating that the facilities have been designed in accordance with the requirements of the City of Lake Elsinore and the RCFCWCD, under interim construction conditions, all proposed basins and storm drain facilities would be built prior to the construction of any residential homes or commercial uses for each phase of development. Thus, during the Project's interim construction phase, storm water runoff from the site would be less than the runoff flow rates that occur under existing conditions and the storm drain facilities in place would have more capacity than needed until final Project buildout. Furthermore, upon buildout of the proposed Project, storm water runoff from the site would be less than the runoff flow rates that occur under existing conditions. As described above, Drainage Areas A through D would ultimately discharge to the existing Caltrans RCB culvert located along the westerly Project site boundary and to existing drainage facilities within El Toro Road. As shown in Table 4.9-2, peak discharge to the existing Caltrans RCB culvert located along the westerly Project site boundary under the 2-year storm 24-hour peak flow scenario would be reduced by 2.62 cubic feet per second (cfs) and peak discharge to facilities in El Toro Road would be reduced by 0.57 cfs. The Project's Drainage Plan has been designed to generally retain the site's existing topographic character, except as necessary to allow for proper drainage and sewer flows. Accordingly, with implementation of the proposed Project, runoff from the Project site would not result in substantial erosion or siltation on- or off-site, and a less-than-significant impact would occur.

In addition, with buildout of the Project, the site would generally be converted from an undeveloped site to that of a mixed-use community (including residential and commercial retail land uses) consisting of urban land uses and ornamental landscaping. As compared to existing conditions, development of the site with residential and commercial land uses would reduce the site's potential for generating substantial amounts of erosion or siltation due to the reduction in permeable surfaces. Moreover, with incorporation of drainage basins that would address water quality and would reduce the amount of siltation in site runoff, impacts due to erosion or siltation would be less than significant. The proposed drainage basins are designed according to the standards of the City of Lake Elsinore and the RCFCWCD to detain and slowly release storm water to allow particles

and associated pollutants to settle out in the basin prior to storm water leaving the Project site. The drainage basins have been designed to treat the "first flush" of a rainfall event (generally the first 0.75-inch of precipitation) that typically generates the most polluted storm water. Therefore, the proposed drainage basins would maximize storm water infiltration and evapotranspiration and minimize direct discharge of runoff to the storm drain system. Accordingly, under long-term conditions, impacts due to substantial erosion or siltation would be less than significant.

### *B. On- and Off-Site Impacts due to Flood Hazards and Flood Flows*

According to the FEMA FIRM No. 06065C2928G, dated August 28, 2008, the majority of the portions of the Project site that are proposed for development are not within a 100-year flood hazard area. The only portion of the Project site located within the 100-year flood hazard area is Stovepipe Creek, which traverses the Project site in a northeast-to-southwest orientation. Stovepipe Creek is located within 'Zone A' of the FEMA FIRM, which indicates that no base flood elevations have been determined, but that the area is within the special flood hazard areas subject to inundation by the 100-year flood. As currently mapped, the Project would result in changes to the mapped flood areas on site as needed to accommodate residential and commercial development on the site. Although no housing or structures are proposed within Stovepipe Creek, implementation of the proposed Project would adjust the hydrologic characteristics of Stovepipe Creek and would result in the modification of the existing special flood hazard area. (FEMA, 2008)

In order to address the Project's proposed modification of the existing special flood hazard area, the Project would be required to obtain a Conditional Letter of Map Revision (CLOMR) from FEMA. A CLOMR is FEMA's comment on a proposed project that would, upon construction, affect the hydrologic or hydraulic characteristics of a flooding source and result in the modification of the existing regulatory floodway or special flood hazard areas. Upon completion of construction for the proposed Project, the Project Applicant would be required to obtain a Letter of Map Revision (LOMR) from FEMA. A LOMR is FEMA's modification to an effective FIRM, and would be based on the implementation of physical measures that would affect the hydrologic or hydraulic characteristics of a flooding source and result in a modification of the existing regulatory floodway or the special flood hazard area. The LOMR would officially revise the FIRM and when appropriate, includes a description of the modifications. (FEMA, 2017b; FEMA, 2018) The required CLOMR and LOMR for the Project would serve to modify the FIRM for the Project site to modify the floodplain boundary to reflect the boundaries of Stovepipe Creek following construction of the proposed Project and no development would occur within the revised mapped flood zones. Furthermore, upon grading as proposed, areas proposed for development would be located outside of the 100-year flood zone. Therefore, following regulatory approval from FEMA, the Project would not place housing or structures within a 100-year flood hazard as mapped on a FIRM, and would not impede or direct flood flow; thus, compliance with mandatory regulatory requirements (i.e., the required CLOMR and LOMR for the site) would ensure that impacts due to flood hazards are reduced to less-than-significant levels.

Additionally, and as previously shown on Table 4.9-2, under the post-development condition, peak discharge to Drainage Area A under the 2-year storm 24-hour peak flow scenario would be reduced by 2.62 cfs and peak discharge to Drainage Area B under the 2-year storm 24-hour peak flow scenario would be reduced by 0.57 cfs. The proposed Project has been designed to include drainage basins that would reduce post-development runoff rates in accordance with the requirements of the City of Lake Elsinore and RCFCWCD. Because the

proposed Project has been designed to attenuate post-development runoff from the site, Project-related runoff would not substantially increase the rate or amount of surface runoff in downstream areas in a manner that would result in flooding on- or off-site. Additionally, the Project would not impede or redirect flood flows. A less-than-significant impact would occur.

### C. *Impacts due to Polluted Runoff and Stormwater Capacity*

Compliance with the City's NPDES permit requirements, as stipulated in the CWA, would reduce impacts to water quality associated with Project-related activities. The NPDES permit requires the preparation of a post-construction management program, such as a WQMP, to ensure ongoing protection of the watershed basin by requiring structural and programmatic controls. A WQMP (EIR *Technical Appendix I2*) was prepared for the proposed Project and identifies non-structural and structural source controls as well as Project design features and BMPs. Structural controls include planning the location of inlets; showing locations of native trees or areas of shrubs and groundcover to be undisturbed and retained; showing proposed native trees or areas of shrubs and ground cover; showing location of water feature and a sanitary sewer cleanout in an accessible area within 10 feet; proper handling, storage, and regular pickup of site refuse and recycled materials; designing roofs to discharge runoff to adjoining landscaping; avoiding roofing, gutters, and trim made of copper or other unprotected metals that may leach into runoff; implementing minimal driveway widths; protecting slopes and channels; landscaping hillsides; and effective irrigation.

Non-structural source controls include: maintenance of inlet markings; education of property owners, tenants, and occupants; limiting the use of pesticides; activity restrictions; irrigation system and landscape maintenance/management; maintenance of pools, spas, and decorative fountains; common area litter control; prohibit/prevent dumping of liquids or hazardous wastes; fire sprinkler tests; sweeping of plazas, sidewalks, and parking lots regularly; and drainage facility inspection/maintenance. The Project's WQMP also outlines the long-term funding mechanisms and contractual obligations for the operation and maintenance of the Project's water quality features. The on-site drainage basins would be maintained by the City of Lake Elsinore through a Landscape Maintenance District (LMD) and the Nichols Ranch Home Owners' Association (HOA). (K&A, 2018b, pp. 31-35)

The Project's WQMP has been prepared in accordance with the Santa Ana Region Hydromodification Management Plan and City of Lake Elsinore requirements. The proposed storm drain design is shown in Figure 3-4, *Drainage Plan*, and was developed to maintain existing drainage patterns to the maximum extent practicable. The system collects flows generated on-site and flows generated off-site that are tributary to the Project site and conveys the flows via an underground storm water drain system to two (2) on-site drainage basins for treatment. Drainage basins are proposed to capture and treat the flows from tributary areas. These primary design features minimize urban runoff, limit the impervious footprint, maximize water conservation areas, and minimize the connection of impervious areas. These design measures are intended to capture first flush flows, defined as the first 0.75-inch of precipitation from storm events, which represents the initial surface runoff from a storm event containing a typically higher concentration of pollutants. All basins and storm drain facilities necessary for each phase of development would be built prior to the construction of any residential homes or commercial uses for each phase of development. Thus, at any stage of the proposed Project, the storm drain facilities would have more capacity than needed until final Project build-out. Adherence to statutory requirements would ensure that the Project does not provide substantial additional sources of polluted

runoff and would ensure Project runoff does not exceed the capacity of any existing or planned stormwater drainage systems. As such, with respect to the potential for additional sources of polluted runoff, long-term operation of the Project would result in less-than-significant impacts.

***Threshold d:*** ***In flood hazard, tsunami, or seiche zones, would the Project risk release of pollutants due to Project inundation?***

As noted above under the discussion of Threshold c., the Project would not be subject to inundation because development proposed by the Project would be located outside the flood plain with approval of a CLOMR and LOMR. Thus, impacts due to flood hazards would be less than significant.

The Project site is located approximately 25 miles northeast of the Pacific Ocean; therefore, the potential for a tsunami to affect the Project site is non-existent (Google Earth, 2016). As such, the Project would have no impact with respect to exposing people or structures to inundation by tsunami.

The Project site is not located near any large water bodies, including reservoirs that could result in potential indirect impacts associated with a seiche. The closest water body that has the potential to produce a seiche is Lake Elsinore, which is located approximately 1.8 miles to the south of the Project site (Google Earth, 2016). Due to the 1.8-mile distance to Lake Elsinore from the Project site and the lower elevation of the lake (i.e., the Project site occurs approximately 250 feet in elevation above Lake Elsinore), the Project would not be subject to inundation by seiches associated with Lake Elsinore, and there would be no release of pollutants from the Project site as a result of any seiches. Based on the foregoing, impacts associated with inundation by seiche would be less than significant.

The Project site is located approximately 1.7 miles north of a levee associated with Lake Elsinore, and 4.7 miles northwest of the Railroad Canyon Dam. As discussed above in Subsection 4.9.1C, according to the City of Lake Elsinore General Plan EIR, the Project site is located outside of dam inundation zones (Lake Elsinore, 2011b, p. 3.9-35). Furthermore, the Project site is located at a higher elevation than Lake Elsinore and is thus not subject to inundation associated with levees associated with the Lake. Additionally, should the Railroad Canyon Dam fail, inundation would be limited to lands located between the dam and Lake Elsinore; thus, the Project site would not be subject to inundation in the event of failure of the Railroad Canyon Dam, and would have no potential for the release of pollutants in the event of failure of a dam or levee. Notwithstanding, the Project would be subject to General Plan policies related to dam inundation. The Public Safety and Welfare Chapter of the Lake Elsinore General Plan includes the following "Policy and Implementation Plan" that are specifically intended to minimize the risk of injury and residents and visitors, and property damage due to flooding.

- Policy 5.1: Continue to ensure that new construction in floodways and floodplains conforms to all applicable provisions of the National Flood Insurance Program in order to protect buildings and property from flooding. (Lake Elsinore, 2011a, p. 3-14)
- Implementation Program: Through the project review and the CEQA processes the City shall assess new development and reuse applications for potential flood hazards, and shall require compliance with FEMA Special Flood Hazard Areas where appropriate. (Lake Elsinore, 2011a, p. 3-14)

Compliance with the above-referenced City of Lake Elsinore General Plan "Policy and Implementation Plan," as well as the construction of the two (2) storm drainage basins on-site would ensure that any potential dam inundation hazards associated with future development would be less than significant and would ensure the Project would not involve the release of pollutants in the event of a failure of a levee or dam.

***Threshold e:*** ***Would the Project conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?***

The Project site is located within the Santa Ana River watershed, which is regulated by the Santa Ana Regional Water Quality Control Board (RWQCB). The RWQCB has developed a "Water Quality Control Plan" for the Santa Ana River Basin (herein, "Basin Plan"), which was most recently updated in February 2016. The Basin Plan establishes water quality standards for the ground and surface waters of the region. The Basin Plan includes an implementation plan describing the actions by the RWQCB and others that are necessary to achieve and maintain the water quality standards. The RWQCB regulates waste discharges to minimize and control their effects on the quality of the region's ground and surface water. Permits are issued under a number of programs and authorities. The terms and conditions of these discharge permits are enforced through a variety of technical, administrative, and legal means. The RWQCB ensures compliance with the Basin Plan through its issuance of National Pollutant Discharge Elimination System (NPDES) Permits, issuance of Waste Discharge Requirements (WDR), and Water Quality Certifications pursuant to Section 401 of the Clean Water Act (CWA). In conformance with these requirements, the Project Applicant has prepared a Water Quality Management Plan (WQMP) and hydrology study, which are included as *Technical Appendices I2 and I1*, respectively, which demonstrates that the Project's proposed drainage plan would meet all applicable requirements of the Basin Plan, including requirements and conditions of approval associated with NPDES permits, issuance of WDRs, and Water Quality Certifications. As such, the Project would not conflict with the Basin Plan, and impacts would be less than significant.

As indicated under the discussion and analysis of Threshold b, above, and as depicted previously on Figure 4.9-3, the Project site is not located within the Elsinore Basin Ground Water Management Zone, and the total amount of runoff leaving the site would be similar to existing conditions. The Project site also is not located within any sustainable groundwater management plans. Additionally, with implementation of the Project's WQMP and SWPPPs during construction activities, the Project would not contribute substantial amounts of polluted runoff that could adversely affect the groundwater basin. Additionally, although the rate of runoff from the site would be reduced as compared to existing conditions, the total amount of water leaving the site would be the same, thereby allowing for groundwater recharge in downstream areas. As such, the Project would not conflict with any sustainable groundwater management plans, and impacts would be less than significant.

## 4.9.5 CUMULATIVE IMPACT ANALYSIS

The cumulative impact analysis considers construction and operation of the proposed Project in conjunction with other development projects in the vicinity of the Project site and resulting from full General Plan buildout in the City of Lake Elsinore and surrounding areas that are located within the Santa Ana River watershed. The following analysis of potential cumulative impacts to hydrology and water quality is divided into five general

topics of discussion by combining Thresholds of Significance into groupings of like topics, consistent with the analysis presented in Subsection 4.9.4.

### *A. Water Quality*

During Project construction, the proposed Project and any other development projects under construction in the Elsinore Groundwater Basin have the potential to result in a cumulative water quality impact, including erosion and sedimentation. Pursuant to the requirements of the State Water Resources Board and the Santa Ana RWQCB, all construction projects that disturb one (1) or more acres of land are required to obtain a NPDES permit and obtain coverage for construction activities. In order to obtain coverage, an effective site-specific SWPPP is required to be developed and implemented for all development projects. The SWPPP must identify potential on-site pollutants and identify and implement an effective combination of erosion control and sediment control measures (i.e., BMPs) to reduce or eliminate discharge of pollutants to surface water from storm water and non-storm water discharges. In addition, the Project and all cumulative developments (refer to Table 4.0-1 of this EIR) would be required to comply with the Water Quality Control Plan for the Santa Ana Region (Basin Plan). Compliance with these mandatory regulatory requirements would ensure the Project's contribution to water quality impairments during Project construction would be less-than-cumulatively considerable and no mitigation is required.

Implementation of the proposed Project and other cumulative development projects would permanently alter the amount of impervious surfaces as a result of newly constructed roadways, structures, and other paved surfaces such as driveways, walkways, parking lots, and other hardscapes. Therefore, the implementation of the Project and other cumulative development projects would result in an increase in storm water runoff when compared with existing conditions and could result in a potential increase in urban pollutants that could contribute to the incremental degradation of the downstream water quality. However, the Project as well as other cumulative development projects would be required to comply with the NPDES permit requirements, as stipulated in the CWA, which would reduce impacts to water quality associated with the Project and other cumulative development projects. Additionally, the NPDES permit requires the preparation of a post-construction storm water management program, such as a WQMP, to ensure ongoing protection of the watershed basin by requiring structural and programmatic storm water controls. The Project and all other cumulative development projects would be required to implement these storm water controls, design features, and BMPs. Accordingly, mandatory compliance with NPDES requirements and implementation of BMPs from project-specific WQMPs would ensure the Project would result in less-than-cumulatively considerable impacts to water quality.

### *B. Groundwater Supply and Recharge*

As discussed under Threshold b, the City of Lake Elsinore obtains its potable water from EVMWD, which sources its potable water supplies primarily through purchasing water from the Metropolitan Water District, but also extracts groundwater from the Elsinore Groundwater Basin and the Coldwater Groundwater Basin. The UWMP concluded that the EVMWD currently has sufficient water supplies to meet existing and future demands, based on a review of the City's water supply entitlements, water rights, and water service contracts (EVMWD, 2016c, pp. 7-8, 7-9). Accordingly, because the Project has a reliable source of water and does not propose to operate any groundwater extraction wells, the Project would have no potential to deplete

groundwater supplies, and would therefore have no potential to have a cumulatively-considerable adverse impact to groundwater supplies. Cumulatively-considerable impacts due to groundwater demand would be less than significant.

Although development of the proposed Project (similar to other development projects throughout the City of Lake Elsinore) would increase the quantity of impervious surfaces, the Project proposes to include drainage basins and permeable landscape areas that would allow for the percolation of on-site storm water runoff into the groundwater basin. Additionally, the total amount of water leaving the site would be similar to existing conditions, thereby allowing for continued infiltration to pervious areas downstream (e.g., downstream portions of the Elsinore Groundwater Basin, the Temescal Canyon Reach, and the Santa Ana River). Accordingly, the Project would result in a less-than-cumulatively considerable impact to groundwater recharge in the Elsinore Groundwater Basin.

### C. *Erosion and Siltation*

The proposed Project incorporates design features (i.e., drainage basins) that would ensure that the Project's post-development drainage conditions closely approximate those that occur under existing conditions, in a manner consistent with City of Lake Elsinore and RCFCWCD requirements. In addition, the proposed Project's grading plan seeks to generally retain the site's existing topographic character. These characteristics would ensure that substantial erosion and siltation do not occur on- or off-site, and that Project-related drainage would not exceed the capacity of existing drainage systems. The Project would have less-than-significant impacts with respect to erosion and siltation. Other cumulative projects in the vicinity of the proposed Project also would be required to comply with regulatory requirements and implement design features and mitigation measures to reduce potential impacts associated with erosion and siltation. Accordingly, the Project would result in less-than-cumulatively considerable impacts due to erosion and siltation.

### D. *Flood Hazards*

The proposed Project would generally maintain the existing drainage pattern of the Project site and the proposed Project would not affect the course of any streams or rivers. In addition, the Project's storm water drainage system is designed to ensure that peak storm water runoff discharge flows are decreased compared to existing conditions and can be adequately accommodated by existing, proposed, and planned master storm drain facilities. Accordingly, because the Project would result in a decrease in the peak storm water runoff discharge flow compared to existing conditions, the Project would not have the potential to contribute to increased flooding hazards on- or off-site. Therefore, there is no potential for the Project to result in cumulatively-considerable impacts to flooding on- or off-site when considered with other cumulative development projects (see Table 4.0-1 of this EIR). Accordingly, the Project would have a less-than-cumulatively considerable impact associated with flooding.

The FEMA FIRM for the Project site indicates that Stovepipe Creek is located within a special flood hazard area. The Project would be required to obtain a CLOMR and LOMR from FEMA to modify the floodplain boundaries. Following the modification of the floodplain boundaries on-site, no development would occur within the revised flood zones. Any other cumulative developments that seek to revise mapped floodplains would similarly be required to obtain a CLOMR and LOMR. Accordingly, the Project's potential to contribute

to a cumulatively-considerable impact associated with placing housing or structures within a 100-year flood zone would be less than significant.

### *E. Construction of Storm Water Drainage Facilities*

Cumulative impacts associated with the provision of storm water drainage facilities are evaluated throughout the appropriate issue areas in this EIR. In all cases, where cumulatively significant impacts associated with any Project component are identified, mitigation measures have been imposed to reduce such impacts to the maximum feasible extent. Accordingly, impacts associated with the provision of stormwater drainage facilities to serve the proposed Project would be less-than-cumulatively considerable.

### *F. Levee or Dam Failure*

According to the City of Lake Elsinore General Plan EIR, the Project site is located outside of dam inundation zones. Furthermore, compliance with the City of Lake Elsinore General Plan "Policy and Implementation Plan" as well as the construction of the two (2) storm water drainage basins on-site, would ensure that any potential dam inundation hazards associated with future development would be less than significant. Other cumulative development projects that are located within dam inundation zones also would be required to comply with applicable regulatory requirements addressing dam inundation flood hazards, as well as implement on-site flood control measures (such as drainage basins) in accordance with the requirements of their respective jurisdictions. There are no components of the proposed Project that would result in a cumulatively-considerable increase in the risk of levee or dam failures. As such, the Project would result in a less-than-cumulatively considerable impact associated with the failure of a levee or a dam.

### *G. Seiches and Tsunamis*

Due to the distance of the Project site from large bodies of water that could be affected by a seiche or tsunami (including the Pacific Ocean), the Project is not subject to hazards associated with seiches or tsunamis. There are no components of the proposed Project that would increase the potential for seiches or tsunamis. Accordingly, the proposed Project has no potential to contribute to a cumulatively-considerable impact associated with seiches or tsunamis.

### *H. Water Quality Control Plans and Sustainable Groundwater Management Plans*

As indicated under the analysis of Threshold e., the Project site is not subject to any sustainable groundwater management plans, and the Project would not affect the total amount of runoff from the site and would not result in substantial amounts of polluted runoff that could affect local aquifers. Additionally, the Project and other cumulative developments would be subject to NPDES permits, issuance of WDRs, and Water Quality Certifications pursuant to Section 401 of the CWA. As such, cumulatively-considerable impacts would be less than significant.

## 4.9.6 Significance of Impacts Before Mitigation

Threshold a: Less-than-Significant Impact. With implementation of the BMPs from the SWPPP and the Project-specific WQMP, included as an applicable City Regulation below, as well as implementation of the

Project's drainage plan that includes two (2) drainage basins, included as an applicable City Regulation below, the Project would result in less-than-significant impacts with respect to water quality.

Threshold b: Less-than-Significant Impact. The Project has a reliable source of domestic water and does not propose any new potable water wells that would directly extract groundwater. Groundwater recharge would occur in on-site drainage basins and landscaped areas, and water conveyed off-site would have the ability to percolate into the groundwater table. The Project would not substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level, and the impact would be less than significant.

Threshold c: Less-than-Significant Impact. Implementation of the BMPs from the Project-specific SWPPP and the on-site drainage basins, included as applicable City Regulations, would ensure that construction and operation of the Project would not result in substantial erosion or siltation on- or off-site or contribute runoff storm water which would exceed the capacity of existing or planned storm water drainage systems, provide substantial additional sources of polluted runoff, or impede or redirect flood flows.

With implementation of the Project's proposed drainage plan (including the two [2] proposed drainage basins) included as an applicable City Regulation, the Project would result in the reduction of peak storm water discharge flows compared to existing conditions. Because the proposed Project has been designed to attenuate post-development runoff from the site, Project-related runoff would not substantially increase the rate or amount of surface runoff in downstream areas in a manner that would result in flooding on- or off-site. A less-than-significant impact would occur.

The FEMA FIRM for the Project site indicates that the majority of the Project site is not located within a special flood hazard area, except for Stovepipe Creek which is located within a special flood hazard area. The Project proposes minor modifications to the flood plain limits and the Project Applicant would be required to obtain a CLOMR and LOMR from FEMA to modify the mapped floodplain boundaries. Following the modification of the floodplain boundaries on-site, no development would occur within the revised flood zones. Thus, with implementation of regulatory requirements the Project would not place housing or structures within a 100-year flood hazard area and would not impede or redirect flood flows. Accordingly, the Project's potential to contribute to an impact associated with placing housing or structures within a 100-year flood zone would be less than significant.

Threshold d: Less-than-Significant Impact. Development as proposed by the Project would not occur within any areas that are mapped by FEMA as occurring within a floodplain. As such, the Project would not result in the release of pollutants due to Project inundation. The Project site is located approximately 1.7 miles north of a levee associated with Lake Elsinore, and 4.7 miles northwest of the Railroad Canyon Dam. According to the City of Lake Elsinore General Plan EIR, the Project site is located outside of dam inundation zones. Furthermore, compliance with the City of Lake Elsinore General Plan "Policy and Implementation Plan" applicable to dam inundation included as an applicable City Regulation as well as the construction of the two (2) drainage basins on-site included as an applicable City Regulation would ensure that the Project does not result in the release of pollutants due to any potential dam inundation hazards associated with future development, and impacts would be less than significant. Based on the 1.8-mile distance and change in topography between Lake Elsinore (the nearest large body of water) and the Project site, the Project would not

be subject to inundation by seiches associated with the body of water. Impacts associated with inundation by seiche would be less than significant. Additionally, due to the approximately 25-mile distance of the Project site from the Pacific Ocean, there is no potential for a tsunami to affect the Project site, and no impact would occur.

Threshold e: Less-than-Significant Impact. The proposed Project would require an NPDES Permit, issuance of a WDR by the RWQCB, and Water Quality Certification, which would ensure the Project does not conflict with the Basin Plan. Additionally, the Project site is not located within any sustainable groundwater management plans, and the Project would not affect water quality or the amount of water discharged to local aquifers. Impacts would be less than significant.

## 4.9.7 City Regulations, Design Requirements, and Mitigation

### *Applicable City Regulations and Design Requirements*

The following are application regulations and design requirements within the City of Lake Elsinore. Although these requirements technically do not meet CEQA's definition for mitigation, they are imposed herein to ensure Project compliance with applicable City regulations and design requirements.

- The Project is required to comply with the provisions of the Project's NPDES permit, and the Project's SWPPP. Compliance with the NPDES permit and the SWPPP would identify and implement an effective combination of erosion control and sediment control measures (i.e., Best Management Practices) to reduce or eliminate discharge to surface water from storm water and non-storm water discharges.
- The Project shall be required to comply with the provisions of the Project's Drainage Study and the provisions of the proposed Specific Plan No. 2018-01. Compliance with these provisions would be assured by the City's future review of the Final Map and implementing grading and building permits for compliance with the provisions that require the development of two (2) drainage basins in order to properly attenuate Project-related drainage flows. These provisions would serve to reduce and/or avoid impacts related to hydrology and water quality.
- The Project was reviewed for compliance with General Plan Policy 5.1 and Implementation Program through the preparation of the Project's WQMP. The Project was found to be consistent with General Plan Policy 5.1 and Implementation Program as stated below.
- Policy 5.1: Continue to ensure that new construction in floodways and floodplains conforms to all applicable provisions of the National Flood Insurance Program in order to protect buildings and property from flooding. (Lake Elsinore, 2011a, p. 3-14)
- Implementation Program: Through the project review and the CEQA processes the City shall assess new development and reuse applications for potential flood hazards, and shall require compliance with FEMA Special Flood Hazard Areas where appropriate. (Lake Elsinore, 2011a, p. 3-14)
- The Project shall comply with EIR Mitigation Measure MM 4.4-1, which is presented in EIR Subsection 4.4, *Geology and Soils*, and incorporates all of the requirements listed in the Project's Geotechnical Evaluation (EIR *Technical Appendix D*).

- The Project shall comply with City of Lake Elsinore Municipal Code Chapter 14.08, Stormwater/Urban Runoff Management and Discharge Controls, which intends to protect and enhance the water quality of City watercourses, water bodies, groundwater, and wetlands.
- The Project shall comply with City of Lake Elsinore Municipal Code Chapter 15.64, Flood Damage Prevention, which includes flood construction requirements to minimize flood hazards.
- Prior to issuance of grading permits, the Project Applicant shall obtain a Conditional Letter of Map Revision (CLOMR) from FEMA to modify the floodplain boundaries as shown in FEMA FIRM No. 06065C2928G, dated August 28, 2008. Prior to issuance of building permits, the Project Applicant shall obtain a Letter of Map Revision (LOMR) to reflect the modified flood plain limits resulting from Project implementation.

### *Mitigation*

As discussed in the analysis under Threshold k above, Mitigation Measure MM 4.4-1 from EIR Subsection 4.4, *Geology and Soils*, would apply. Otherwise, impacts to hydrology and water quality as a result of Project implementation would be less than significant, and no additional mitigation is required.

# 4.10 LAND USE AND PLANNING

This Subsection discusses consistency of the Project with applicable land use and planning policies adopted by the City of Lake Elsinore and other governing agencies for the purpose of reducing adverse effects on the physical environment. Information used to support the analysis in this Subsection was obtained from the City of Lake Elsinore General Plan (Lake Elsinore, 2011a), the Lake Elsinore Municipal Code (Lake Elsinore, 2017), the Southern California Association of Governments' (SCAG's) Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) (SCAG, 2016); and the Regional Conservation Authority (RCA) (RCA, 2003). Refer to EIR Section 7.0, *References*, for a complete list of reference sources.

## 4.10.1 EXISTING CONDITIONS

### A. *Existing On-Site Land Uses*

Under existing conditions, the southern 27.1 acres of the Project site are vacant while the northern 45.4 acres of the Project site are currently undergoing reclamation activities, pursuant to Amendment No. 2 to Reclamation Plan No. 2006-01 (RP 2006-01A2). Reclamation activities include grading and benching of slopes subject to mining, implementation of erosion control measures, and restoration of the site to a more natural appearance. The current topography of the site ranges from approximately 1,294 feet above mean sea level (amsl) in the southwestern portion of the 72.5-acre site to approximately 1,370 feet amsl in the eastern portion of the site; however, following reclamation elevations on-site would range from 1,294 to 1,323 feet amsl. For purposes of analysis herein, the existing condition of the northern 45.4 acres of the Project site is the reclaimed condition of the Project site because no development may occur on this portion of the site until reclamation activities have been completed to the satisfaction of the Division of Mine Reclamation (DMR). Impacts associated with reclamation activities on the northern portions of the site were fully evaluated in a previously-certified EIR for Surface Mining Permit No. 2015-01 and RP 2006-01A1 (SCH No. 2006051034), which is herein incorporated by reference pursuant to CEQA Guidelines § 15150 and is available for review at the City of Lake Elsinore Planning Division 120 South Main Street, Lake Elsinore, CA 92530. Additionally, the Project site is traversed by Stovepipe Creek, which generally crosses the site in a northeast-to-southwest orientation.

### B. *Existing Land Use Designations*

As previously illustrated in Figure 2-5, *Existing General Plan Land Use Designations*, the City of Lake Elsinore General Plan Land Use Map applies land uses over the entire 72.5-acre propriety. As shown, the City's General Plan designates the northern 45.4 acres of the Project site as "Specific Plan" with an "Extractive Overlay" applied to the majority of the northern portions of the site. The northern 45.4 acres of the Project site are located within the Alberhill Ranch Specific Plan (ARSP), which designates the site for "Commercial – Specific Plan" land uses and allows for up to 380,000 s.f. of commercial retail uses. The southern 27.1 acres of the Project site are designated by the General Plan for "General Commercial" land uses which allows for retail, services, restaurants, professional and administrative offices, hotels and motels, mixed-use projects, public and quasi-public uses, and similar and compatible uses. (Lake Elsinore, 2011a, Figure 2.1A; Lake Elsniore, 1997, p. 7)

At the time the General Plan EIR was certified in 2011, the northern 45.4 acres of the Project site were located in within the City of Lake Elsinore, while the southern 27.1 acres were located within Riverside County. The southern 27.1 acres of the Project site were annexed along with other lands into the City of Lake Elsinore on November 10, 2016 (Annexation No. 83) (RLAFCO, 2016). Per the requirements of Government Code § 56375(e), there is a two-year prohibition on changing the land use on an area annexed into a city. Thus, the earliest the land use could be redesignated for the southern 27.1 acres of the Project site would be November 10, 2018.

As previously illustrated in Figure 2-6, *Existing Zoning Designations*, the City of Lake Elsinore Zoning Map designates the northern 45.4 acres of the Project site as "Alberhill Ranch Specific Plan," which pursuant to the ARSP allows for up to 380,000 s.f. regional general commercial uses. The southern 27.1 acres of the Project site are zoned for "Commercial Mixed Use (CMU)," which allows for "a mix of land uses in a compact, high quality, pedestrian-friendly, interactive pattern." (Lake Elsinore, 2014; Lake Elsinore, 2017, Chapter 17.134; Lake Elsniore, 1997, p. 7)

### C. Surrounding Land Uses

Surrounding land uses were shown previously on Figure 2-4, *Aerial Photograph*. The Project site is located in a portion of the City that contains vacant lands, residential, school, and commercial land uses. Immediately north of the Project site is Nichols Road, beyond which is an active mining operation and open space. To the west of the site is I-15 freeway, beyond which is the Lake Elsinore Outlet Center. To the south of the site is the Temescal Canyon High School. To the east of the site are single-family homes. (Google Earth, 2016)

Existing General Plan land use designations north of the Project site include "Specific Plan," "Open Space," and "Hillside Residential." Lands to the east of the Project site are designated as "Hillside Residential" and "Low Density Residential" by the Riverside County General Plan. Properties located to the west of the Project site are designated as "Specific Plan." Lands to the south of the Project site are designated as "Public Institutional" and "Specific Plan" (Lake Elsinore, 2011a, Figure 2.1A)

Figure 2-6 depicts the existing zoning classifications at the site, and shows lands to the north and west of the Project site are zoned as "Alberhill Ranch Specific Plan." Properties to the south of the Project sire are zoned as "Public/Institutional". Properties located east of the Project site are within unincorporated Riverside County and are zoned as "Residential Agricultural (R-A-10)" and "Residential Agricultural (R-A-2000)." (Lake Elsinore, 2014)

### D. Applicable Land Use and Planning Policies

#### 1. City of Lake Elsinore General Plan

The City of Lake Elsinore General Plan, approved in 2011, is a policy document that reflects the City's vision for the future of Lake Elsinore. The General Plan is organized into four overall Chapters, including: Introduction; Community Form; Public Safety and Welfare; and Resource Protection and Preservation. Each General Plan Chapter is instrumental to achieving the City's long-term development goals. Each Chapter contains a series of policies that guide the course of action the City must take to achieve the City's vision for future development.

In addition, the General Plan divides the City into 16 District Plans. The purpose of these District Plans is to provide more detailed land use and policy direction regarding local issues such as land use, circulation, open space, and other topical areas. The northern 45.4 acres of the Project site are located within the Alberhill District, while the southern 27.1 acres of the Project site are located within the North Central Sphere District. The following sections provides a summary of each General Plan Chapter, the Alberhill District Plan, and the North Central Sphere District Plan.

### *Community Form*

The General Plan Community Form Chapter functions as a guide to planners, the general public, and decision makers as to the ultimate pattern of development within the City. The Community Form Chapter contains a "Strategic Framework for 2030" which provides an overall structure to identify polices that guide the City. The Strategic Framework provides a mechanism to explain how the individual elements of the General Plan fit together, how the General Plan is to be implemented through regulatory framework to achieve its policies, and provides a vision for the foreseeable future. The Strategic Framework includes the following Elements: Land Use; Circulation; Growth Management; Housing Element; Community Facilities and Protection Services (included in Chapter 2 of the General Plan); Parks and Recreation; and Historic Preservation (included in Chapter 4 of the General Plan).

The Land Use Element designates the general distribution, general location, and extent of land uses, such as housing, business, industry, open space, agriculture, natural resources, recreation, and public/quasi-public uses. For each of the various land use designations, the General Plan provides standards for residential density and non-residential intensity, and provides specific policies intended to ensure that residential product types, densities, and intensities respond to a multitude of market segments. The Land Use Element governs how land is to be utilized; therefore, many of the issues and policies contained in other plan elements are linked in some degree to this element. The northern 45.4 acres of the Project site are located within the ARSP which designates the site for "Commercial – Specific Plan" land uses and allows for up to 380,000 s.f. of commercial retail uses. The southern 27.1 acres of the Project site are designated by the General Plan for "General Commercial" land uses which allows for retail, services, restaurants, professional and administrative offices, hotels and motels, mixed-use projects, public and quasi-public uses, and similar and compatible uses. (Lake Elsinore, 2011a, p. 2-2)

The purpose of the Circulation Element is to provide for the movement of goods and people, including pedestrians, bicycles, transit, train, air, and automobile traffic flows within and through the community. The Circulation Element designates future road improvements and extensions; addresses non-motorized transportation alternatives; and identifies funding options. The various roadway improvements and extensions contemplated by the Circulation Element are reflected on the General Plan Circulation Plan. The various roadway classifications depicted on the Circulation Plan correspond to specific roadway cross-sections, which provide specific standards for right-of-way widths, lane configurations, medians, and landscaping requirements. The only roadway in the immediate Project vicinity that is designated as part of the General Plan Circulation Element is Nichols Road, which is classified as an "Urban Arterial (6-Lanes/120-foot ROW)." The Circulation Element also identifies

the location of all existing and planned trails in the Project's vicinity and includes a bikeway plan. The Circulation Element identifies a "Riverside County Regional Trail" within the southern portion of the Project site along Stovepipe Creek and a "Lake Elsinore Regional Trail" along Nichols Road abutting the Project's northern boundary. The Circulation Element also identifies a Class II bike lane along Nichols Road which abuts the Project's northern boundary. (Lake Elsinore, 2011a, Figure 2.3)

The Growth Management Element provides goals and policies to ensure that public services do not lag behind population growth and the concomitant demands created by a larger population. The Growth Management Element aids in anticipating the demands for public services and infrastructure to establish adequate services and infrastructure at a rate that meets the rate of new construction in the City. The goals and policies in this section are designed to provide the framework for a growth management strategy that promotes and maximizes mobility, livability, prosperity, and sustainability in the City. (Lake Elsinore, 2011a, pp. 2-41, 2-42)

The 2014-2021 Housing Element identifies and establishes City policies intended to fulfill the housing needs of existing and future residents in the City of Lake Elsinore. It establishes policies that guide City decision making and set forth an action plan to implement its housing goals. The Housing Element includes policies, programs, and incentives including: identification of existing and projected housing needs; resources and constraints; a statement of goals, policies, quantified objectives and scheduled programs for preservations, improvements, and development of housing; adequate provision for existing and projected needs of all economic segments of the community; and identification of adequate sites for housing. (Lake Elsinore, 2013, p. 1)

The Parks and Recreation Element includes goals and polices designed to provide the City with the tools and opportunities necessary to create a recreational destination and foster community building for the City of Lake Elsinore. The City acknowledges the relationship of recreation to aspects of social, cultural, and economic benefits to the community and the role of these benefits in the planning process for parks and recreational facilities and programs. Historically, Lake Elsinore has been regarded as a recreational destination for the Inland Empire partly because of the City's natural resources such as the lake, mountains, and rugged hillsides. The goals and policies in this section are designed to provide adequate parks and recreational facilities for residents and visitors. (Lake Elsinore, 2011a, pp. 2-43 to 2-48)

### *Public Safety and Welfare*

The Public Safety and Welfare Chapter of the General Plan addresses public safety and welfare issues within the City and the Sphere of Influence (SOI), including: air quality; fire and police/law enforcement; community facilities and services; hazards; and noise. The focus is on maintaining a healthy and safe physical environment and ensuring community welfare through access to effective and efficient high-quality public services. (Lake Elsinore, 2011a, p. 3-1)

### *Resource Protection and Preservation*

The Resource Protection and Preservation Chapter of the General Plan addresses resource protection and preservation issues within the City and the SOI related to biological resources; open space; water resources; cultural and paleontological resources; and aesthetic resources. The Resource Protection and Preservation Chapter also contains discussion and figures that detail the locations of water resources, vegetation communities, mineral resources, and cultural resources within the City. Together with the Multiple Species Habitat Conservation Plan (described below), the Resources Protection and Preservation Chapter seeks to preserve and protect identified resources in order to maintain or improve environmental quality. (Lake Elsinore, 2011a, Chapter 4.0)

### *Alberhill District Plan*

The northern 45.4 acres of the Project site is located within the Alberhill District Plan. The Alberhill District is a component of the Lake Elsinore General Plan, bordered by the Lake View District, Country Club Heights District, and Business District to the south; the North Central Sphere to the east; and Northwest Sphere District to the west and north. The Alberhill District is planned to transition from a concentrated mining area into a network of residential, commercial, industrial, and mixed-use communities. The main concept of the Alberhill District Plan is a coordinated and balanced set of communities with supporting uses that maintain a high quality of life. The goals and policies contained within the Alberhill District Plan reflect the general intentions of the City adopted specific plans for those areas. (Lake Elsinore, 2011a, p. AH-1)

As shown on Alberhill District Plan Figure AH-1, *Alberhill District Land Use Plan*, the portion of the Project site within the Alberhill District Plan is designated for Specific Plan uses and the majority of the area is also located within the Extractive Overlay (Lake Elsinore, 2011a, Figure AH-1). The purpose of the Extractive Overlay is to provide for continued operations of extractive uses, such as aggregates, coal, clay mining, and certain ancillary uses. (Lake Elsinore, 2011a, p. 2-18)

### *North Central Sphere District*

The southern 27.1 acres of the Project site are located within the North Central Sphere District Plan. The North Central Sphere District is a component of the Lake Elsinore General Plan, bordered by the North Peak, Lake Elsinore Hills, Business, and Alberhill Districts to the east, south, southeast, and west, respectively. The area north of the North Central Sphere District falls outside of the Sphere of Influence of the City. The main focus of the North Central Sphere District Plan is to preserve existing natural resources, ensure residential development incorporates the surrounding landscape, and ensure that business activities in the District are compatible with surrounding land uses. The goals and policies contained within the North Central Sphere District Plan focus on supporting development while preserving the topography and views in the North Central Sphere District. As shown on North Central Sphere District Plan Figure NCS-1, *North Central Sphere District Land Use Plan*, the portion of the Project site within the North Central Sphere District Plan is designated for General Commercial uses. (Lake Elsinore, 2011a, p. NCS-1 and Figure NCS-1)

### 2. City of Lake Elsinore Zoning Ordinance

The City of Lake Elsinore Zoning Ordinance, which is part of the City's Municipal Code, assigns a zoning classification to all properties inside the City's boundaries. The Zoning Ordinance is intended to implement the City of Lake Elsinore General Plan's Land Use Plan. As previously indicated and as shown on Figure 2-6, the City of Lake Elsinore Zoning Map designates the northern 45.4 acres of the Project site as "Alberhill Ranch Specific Plan," which pursuant to the ARSP allows for up to 380,000 s.f. regional general commercial uses. The southern 27.1 acres of the Project site are zoned for "Commercial Mixed Use (CMU)," which allows for "a mix of land uses in a compact, high quality, pedestrian-friendly, interactive pattern." (Lake Elsinore, 2014; Lake Elsinore, 2017, Chapter 17.134; Lake Elsniore, 1997, p. 7)

### 3. Southern California of Association of Governments (SCAG)

The Southern California Association of Governments (SCAG) is a regional agency established pursuant to CA Gov. Code § 6500, Joint Powers Authority law. SCAG is designated as a Council of Governments (COG), a Regional Transportation Planning Agency (RTPA), and a Metropolitan Planning Organization (MPO). SCAG serves as an area-wide clearinghouse for regionally significant projects. SCAG reviews the consistency of local plans, projects, and programs with regional plans. Guidance provided by this review process is intended to assist local agencies and project sponsors to take actions that contribute to the attainment of regional goals and policies.

The Project site is located within the Western Riverside Council of Governments (WRCOG) sub-region of SCAG. The applicable SCAG policy documents include the Regional Comprehensive Plan and Guide (2016), the Regional Transportation Plan and Sustainable Communities Strategy (RTP/SCS), and Compass Growth Vision. Because the proposed Project meets the CEQA definition of having a statewide, regional, or area-wide significance, the proposed Project is subject to an individual consistency evaluation with regional plans such as those published by SCAG.

### 4. South Coast Air Quality Management District Air Quality Management Plan (SCAQMD AQMP)

California Health & Safety Code § 40702 et seq., the California Clean Air Act, requires that an Air Quality Management Plan (AQMP) be developed and then updated every three years for air basins with non-attainment status. As discussed in EIR Section 4.2, *Air Quality*, the Project site is located in the South Coast Air Basin (SCAB). The SCAB is within the jurisdiction of the South Coast Air Quality Management District (SCAQMD), the agency charged with bringing air quality in the SCAB into conformity with federal and State air quality standards. Air quality within the SCAB is regulated by the SCAQMD and standards for air quality are documented in the SCAQMD's 2016 AQMP. Although air quality in the SCAB has improved over the past several decades, according to the SCAQMD, the SCAB currently does not meet the National Air Quality Standards (NAAQS) attainment status for ozone ($O_3$) and particulate matter less than 2.5 microns ($PM_{2.5}$). The SCAB's designation for lead is currently nonattainment (partial) and a revaluation of attainment status was requested, with the final determination pending. The SCAB does not meet the California Ambient Air Quality Standards (CAAQS) attainment status for ozone ($O_3$), particulate matter <2.5 microns ($PM_{2.5}$), and particulate matter <10 microns ($PM_{10}$) as nonattainment. (SCAQMD, 2017a)

The SCAQMD AQMP is a plan for the regional improvement of air quality. Projects such as the proposed Project relate to the air quality planning process through the growth forecasts that were used as inputs into the regional transportation model. If a proposed project is consistent with these growth forecasts, and if all available emissions reduction strategies are implemented as effectively as possible on a project-specific basis, then the project is consistent with the AQMP.

## 4.10.2 APPLICABLE ENVIRONMENTAL REGULATIONS

The following is a brief description of the federal, State, and local environmental laws and related regulations associated with land use and planning.

### *B. Federal Regulations*

#### *1. Clean Water Act*

The Clean Water Act (CWA) establishes the basic structure for regulating discharges of pollutants into the waters of the United States and regulating quality standards for surface waters. The basis of the CWA was enacted in 1948 and was called the Federal Water Pollution Control Act, but the Act was significantly reorganized and expanded in 1972. "Clean Water Act" became the Act's common name with amendments in 1972. Under the CWA, the Environmental Protection Agency (EPA) has implemented pollution control programs such as setting wastewater standards for industry, and also has set water quality standards for all contaminants in surface waters. The CWA made it unlawful to discharge any pollutant from a point source into navigable waters, unless a permit was obtained. EPA's National Pollutant Discharge Elimination System (NPDES) permit program controls discharges. Point sources are discrete conveyances such as pipes or man-made ditches. Individual homes that are connected to a municipal system, use a septic system, or do not have a surface discharge do not need an NPDES permit; however, industrial, municipal, and other facilities must obtain permits if their discharges go directly to surface waters. (EPA, 2018a)

#### *2. Federal Aviation Regulations Part 77*

Federal Regulation Title 14 Part 77 establishes standards and notification requirements for objects affecting navigable airspace. This notification serves as the basis for:

- Evaluating the effect of the construction or alteration on operating procedures;
- Determining the potential hazardous effect of the proposed construction on air navigation;
- Identifying mitigating measures to enhance safe air navigation; and
- Charting of new objects. (FAA, 2017)

Notification allows the Federal Aviation Administration (FAA) to identify potential aeronautical hazards in advance to prevent or minimize the adverse impacts to the safe and efficient use of navigable airspace. Any person/organization who intends to sponsor any of the following construction or alterations must notify the Administrator of the FAA (FAA, 2017):

- Any construction or alteration exceeding 200 feet above ground level.
- Any construction or alteration:

  - within 20,000 feet of a public use or military airport which exceeds a 100:1 surface from any point on the runway of each airport with at least one runway more than 3,200 feet.
  - within 10,000 feet of a public use or military airport which exceeds a 50:1 surface from any point on the runway of each airport with its longest runway no more than 3,200 feet.
  - within 5,000 feet of a public use heliport which exceeds a 25:1 surface.
- Any highway, railroad, or other traverse way whose prescribed adjusted height would exceed that above noted standards.
- When requested by the FAA.
- Any construction or alteration located on a public use airport or heliport regardless of height or location. (FAA, 2017)

Persons failing to comply with the provisions of FAR Part 77 are subject to Civil Penalty under Section 902 of the Federal Aviation Act of 1958, as amended and pursuant to 49 U.S.C. Section 46301(a). (FAA, 2017)

## *C. State Regulations*

### *1. Porter-Cologne Water Control Act*

The Porter-Cologne Act is the principal law governing water quality regulation in California. It establishes a comprehensive program to protect water quality and the beneficial uses of water. The Porter-Cologne Act applies to surface waters, wetlands, and ground water and to both point and nonpoint sources of pollution. Pursuant to the Porter-Cologne Act (California Water Code § 13000 et seq.), the policy of the State is as follows:

- That the quality of all the waters of the State shall be protected;
- That all activities and factors affecting the quality of water shall be regulated to attain the highest water quality within reason; and
- That the State must be prepared to exercise its full power and jurisdiction to protect the quality of water in the State from degradation. (SWRCB, 2014)

The Porter-Cologne Act established nine Regional Water Boards (based on hydrogeologic barriers) and the State Water Board, which are charged with implementing its provisions and which have primary responsibility for protecting water quality in California. The State Water Board provides program guidance and oversight, allocates funds, and reviews Regional Water Boards decisions. In addition, the State Water Board allocates rights to the use of surface water. The Regional Water Boards have primary responsibility for individual permitting, inspection, and enforcement actions within each of nine hydrologic regions. The State Water Board and Regional Water Boards have numerous non-point source (NPS) related responsibilities, including monitoring and assessment, planning, financial assistance, and management. (SWRCB, 2014)

The Regional Water Boards regulate discharges under the Porter-Cologne Act primarily through issuance of NPDES permits for point source discharges and waste discharge requirements (WDRs) for NPS discharges. Anyone discharging or proposing to discharge materials that could affect water quality (other than to a community sanitary sewer system regulated by an NPDES permit) must file a report of waste discharge. The Storm Water Resources Control Board (SWRCB) and the Regional Water Quality Control Boards (RWQCBs)

can make their own investigations or may require dischargers to carry out water quality investigations and report on water quality issues. The Porter-Cologne Act provides several options for enforcing WDRs and other orders, including cease and desist orders, cleanup and abatement orders, administrative civil liability orders, civil court actions, and criminal prosecutions. (SWRCB, 2014)

The Porter-Cologne Act also implements many provisions of the Clean Water Act, such as the NPDES permitting program. The Porter-Cologne Act also requires adoption of water quality control plans that contain the guiding policies of water pollution management in California. In addition, regional water quality control plans (basin plans) have been adopted by each of the Regional Water Boards and get updated as necessary and practical. These plans identify the existing and potential beneficial uses of waters of the State and establish water quality objectives to protect these uses. The basin plans also contain implementation, surveillance, and monitoring plans. (SWRCB, 2014)

### *2. California Water Code*

The California Water Code is the principle state law regulating water quality in California. Water quality provisions must be complied with as contained in numerous code sections including: 1) the Health and Safety Code for the protection of ground and surface waters from hazardous waste and other toxic substances; 2) the Fish and Game Code for the prevention of unauthorized diversions of any surface water and discharge of any substance that may be deleterious to fish, plant, animal, or bird life; 3) the Harbors and Navigation Code for the prevention of the unauthorized discharge of waste from vessels into surface waters; and 4) the Food and Agriculture Code for the protection of groundwater which may be used for drinking water supplies. The California Department of Fish and Wildlife (CDFW), through provisions of the Fish & Game Code (§§ 1601 - 1603) is empowered to issue agreements for any alteration of a river, stream, or lake where fish or wildlife resources may be adversely affected. CDFW regulates wetland areas only to the extent that those wetlands are part of a river, stream, or lake as defined by CDFW.

Surface water quality is the responsibility of the Regional Water Quality Control Board (RWQCB), water supply and wastewater treatment agencies, and city and county governments. The principal means of enforcement by the RWQCB is through the development, adoption, and issuance of water discharge permits. RWQCB basin plans establish water quality objectives that are defined as the limits or levels of water quality constituents or characteristics for the reasonable protection of beneficial uses of water.

### *3. California Planning and Zoning Law*

The legal framework in which California cities and counties exercise local planning and land use functions is set forth in the California Planning and Zoning Law, §§ 65000 - 66499.58. Under State of California planning law, each city and county must adopt a comprehensive, long-term general plan. State law gives cities and counties wide latitude in how a jurisdiction may create a general plan, but there are fundamental requirements that must be met. These requirements include the inclusion of seven mandatory elements described in the Government Code, including a section on land use. Each of the elements must contain text and descriptions setting forth objectives, principles, standards, policies, and plan proposals; diagrams and maps that incorporate data and analysis; and mitigation measures.

### *4. Subdivision Map Act*

The Subdivision Map Act ("Map Act") vests in the cities and counties the power to regulate and control the design and improvement of subdivisions within its boundaries. Each city must adopt an ordinance regulating and controlling subdivisions for which the Map Act requires a tentative and final or parcel map. The authority for a city or county to regulate land use, including subdivisions, flows from the general police power. However, the Map Act sets forth certain mandates that must be followed for subdivision processing. A city can impose conditions on the subdivision process when the Map Act is silent, but it cannot regulate contrary to specific provisions contained in the Map Act. (Curtin, Jr. & Merritt, 2002, p. 1) The Map Act's primary goals are:

- To encourage orderly community development by providing for the regulation and control of the design and improvement of the subdivision, with a proper consideration of its relation to adjoining areas;
- To ensure that the areas within the subdivision that are dedicated for public purposes will be properly improved by the subdivider so that they will not become an undue burden on the community; and
- To protect the public and individual transferees from fraud and exploitation. (Curtin, Jr. & Merritt, 2002, p. 1)

The Map Act is applied in conjunction with other state land use laws such as the general plan, specific plans, zoning, CEQA, and the Permit Streamlining Act. The Map Act provides for regulation of land divisions by a city or county and is interpreted and enforced by the city or county. (Curtin, Jr. & Merritt, 2002, p. 2)

### *5. Office of Planning and Research (OPR) General Plan Guidelines*

Each city and county in California must prepare a comprehensive, long term general plan to guide its future. To assist local governments in meeting this responsibility, the Governor's Office of Planning and Research (OPR) is required to adopt and periodically revise guidelines for the preparation and content of local general plans pursuant to Government Code § 65040.2. The General Plan Guidelines is advisory, not mandatory. Nevertheless, it is the state's only official document explaining California's legal requirements for general plans. Planners, decision-making bodies, and the public depend upon the General Plan Guidelines for help when preparing local general plans. The courts have periodically referred to the General Plan Guidelines for assistance in determining compliance with planning law. For this reason, the General Plan Guidelines closely adheres to statute and case law. It also relies upon commonly accepted principles of contemporary planning practice. (OPR, 2017, p. 1)

### *6. State Aeronautics Act*

The State Aeronautics Commission Act of 1947 created the Division of Aeronautics ("Division"), and was later amended by statute to read the State Aeronautics Act (Aeronautics Act) in 1961. As a result of this legislation, the Division's first priorities are those mandated by the Aeronautics Act, then Caltrans guidance, then Division guidance as expressed through its Policy Element. As directed by the Aeronautics Act, the Division is a steward and advocate of aviation in California. To that end, its efforts are focused on activities that "protect the public interest in aeronautics and aeronautical progress." (§ 21002) (Caltrans, 2016, p. 1-2)

The Aeronautics Act itself is divided into six chapters, the first five of which have not received significant cleanup legislation since its enabling in 1947. The first chapter begins with general provisions and definitions and explains the Legislature's intent for a State aviation program. Chapter two explains Caltrans' role in administering the Division, and explains the role of the California Transportation Commission (CTC). Chapter three includes many of the safety considerations from Federal Aviation Administration (FAA) regulations that help keep airports and the surrounding communities safe and compatible with flight operations. Chapter four deals with airport and heliport permitting, air navigation facilities, noise guidelines, funding, and importantly, the formation and authority of Airport Land Use Commissions (ALUC). Chapter five covers the investigations and hearings on matters covered in the Aeronautics Act. Finally, Chapter six introduces airport planning and specifically introduces the intent of the CASP and how it can be used to support California aviation. (Caltrans, 2016, p. 1-2)

### *D. Local Regulations*

#### *1. Lake Elsinore Municipal Code (LEMC) – Title 14, Chapter 14.08*

The purpose of this chapter is to ensure the future health, safety, and general welfare of City citizens by:

- Reducing pollutants in stormwater discharges to the maximum extent practicable;
- Regulating illegal connections and discharges to the storm drain system; and
- Regulating non-stormwater discharges to the storm drain system.

The intent of this chapter is to protect and enhance the water quality of City watercourses, water bodies, groundwater, and wetlands in a manner pursuant to and consistent with the Federal Clean Water Act (33 USC 1342). [Ord. 1004 Art. I § 2, 1995]. (Lake Elsinore, 2011b, p. 3.8-34)

#### *2. Lake Elsinore Municipal Code (LEMC) – Title 5, Chapter 5.116*

The City has in place a palm tree preservation program, which was adopted as City Ordinance No. 1044. and codified as Chapter 5.116 of the Lake Elsinore Municipal Code. The purpose of the program is for the protection of the City's plant life heritage for the benefit of all citizens in Lake Elsinore. The City recognizes the value of significant palm trees (Canary Island Date Palm, California Fan Palm, Windmill Palm, Mediterranean Fan Palm, Senegal Date Palm, Pindo Palm and Pygmy Palm) within the City of Lake Elsinore as natural aesthetic resources, which help define the history and character of the City. All residents who wish to remove a palm tree that exceeds five feet in height measured from the ground at the base of the trunk to the base of the crown must obtain a palm tree removal permit prior to removal of the tree. (Lake Elsinore, 2011b, p. 3.8-34)

## 4.10.3 BASIS FOR DETERMINING SIGNIFICANCE

The proposed Project would result in a significant impact to land use and planning if the Project or any Project-related component would:

*a. Physically divide an established community;*

*b. Cause a significant environmental impact due to a conflict with any applicable land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect; or*

The above listed thresholds are derived directly from Section XI of Appendix G to the CEQA Guidelines and address typical adverse effects to land use and planning (OPR, 2018).

## 4.10.4 IMPACT ANALYSIS

***Threshold a:*** ***Would the Project physically divide an established community?***

Under existing conditions, the southern 27.1 acres of the Project site are vacant while the northern 45.4 acres of the Project site are currently undergoing reclamation activities. Under existing conditions, residential uses occur only to the east of the Project site. Future residential development as proposed by the Project would not result in the physical division of any of the existing nearby residential neighborhoods to the east, as the future development of up to 168 residential dwelling units and commercial uses on-site would provide public roadways and pedestrian/bicycle connections within and through the Project site. Additionally, no residential neighborhoods occur to the north, west, or south. Accordingly, the proposed Project would have no potential to physically divide an established community, and no impact would occur.

***Threshold b:*** ***Would the Project cause a significant environmental impact due to a conflict with any applicable land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect***

The proposed Project has the potential to conflict with the City of Lake Elsinore General Plan, City of Lake Elsinore Zoning Ordinance, and the SCAG 2016-2040 RTP/SCS. Each is discussed below. Project consistency with the SCAQMD AQMP was addressed under EIR Subsection 4.2, *Air Quality*, under the discussion and analysis of Threshold a., and is not discussed below.

### ❑ City of Lake Elsinore General Plan

A discussion of the Project's consistency with each Chapter and Element of the City of Lake Elsinore General Plan is provided below.

#### *Community Form-Land Use Element*

The Land Use Element designates the general distribution, general location, and extent of land uses, such as housing, business, industry, open space, agriculture, natural resources, recreation, and public/quasi-public uses. The General Plan Land Use Map (General Plan Figure 2.1A) designates the northern 45.4 acres of the Project site as "Specific Plan" with an "Extractive Overlay" applied to the majority of the northern portions of the site. The northern 45.4 acres of the Project site are located within the Alberhill Ranch Specific Plan (ARSP), which designates the site for "Commercial – Specific Plan" land uses. The southern 27.1 acres of the Project site are designated by the General Plan for "General Commercial" land uses. As previously noted under Subsection A.1, the southern 27.1 acres of the Project site were annexed into the City of Lake Elsinore in 2016. The Project proposes development of 168 single-family residential homes, 14.5 acres of commercial uses, and 8.3 acres of recreational uses. Although the proposed Project would be inconsistent with the General

Plan Land Uses for the Project site, the Project proposes a General Plan Amendment (GPA No. 2018-01). Environmental impacts associated with GPA 2018-01 have been evaluated under the relevant issue areas throughout this EIR. Under each of these topics, the Project's impacts are determined to be less than significant, or mitigation measures have been imposed to reduce impacts to the maximum feasible extent. There are no components of GPA 2018-01 that have not already been addressed and accounted for throughout this EIR.

Per the requirements of Government Code § 56375(e), there is a two-year moratorium on changing the land use within an area annexed into a city. Thus, the earliest the land use could be redesignated for the southern 27.1 acres of the Project site would be November 10, 2018. The Project is not be anticipated to be presented at a public hearing until after November 10, 2018, at which time the Project's proposed General Plan Amendment (GPA No. 2018-01) application could be considered.

Thus, although the Project proposes dwelling units and less retail space than assumed by the General Plan, there are no adverse environmental effects associated with such changes that have not already been evaluated and addressed throughout this EIR. The Project would be consistent with all of the policies contained within the Land Use Element. Accordingly, the Project would not conflict with the General Plan Land Use Element exhibits or policies, and impacts would be less than significant. (Lake Elsinore, 2011a, p. 2-2)

### *Community Form-Circulation Element*

The purpose of the Circulation Element is to provide for the movement of goods and people, including pedestrians, bicycles, transit, train, air and automobile traffic flows within and through the community. The Circulation Element designates future road improvements and extensions; addresses non-motorized transportation alternatives; and identifies funding options. The various roadway improvements and extensions contemplated by the Circulation Element are reflected on Figure 2.3 of the Community Form Chapter. Roadway facilities in the immediate Project vicinity that are designated as part of the General Plan Circulation Element include Nichols Road, which is classified as an "Urban Arterial (6-Lanes/120-foot ROW) (Lake Elsinore, 2011a, Figure 2.3). As shown previously on Figure 3-3, the Project proposes to construct half width improvements to Nichols Road along the Project's frontage, and would provide for 48 feet of drive lanes, a six-foot wide curb-adjacent sidewalk within a 12-foot landscaped parkway, and an asphalt and concrete berm along the northern edge of the proposed improvements. As proposed by the Project, a transition from the half-width of the ultimate ROW to the two-lane roadway would be constructed between planned improvements along most of the Project's frontage and the existing improved section of roadway adjacent to Planning Areas 2 and 10. The Project would construct 30-feet of interim ROW within the southern half of the Nichols Road ROW. The Project would construct two 15-foot travel lanes, a 5-foot sidewalk on the southern side of the ROW, and a proposed interim rock channel, 1.5:1 ratio slope, and a proposed brow ditch. Improvements to the northern edge of Nichols Road and east of the site would occur by others in the future. Thus, the Project would be fully consistent with Figure 2.3 of the Community Form Chapter.

The Circulation Element also contemplates improvements to bicycle and pedestrian facilities, which are reflected in Figure 2.5 and 2.6 of the Community Form Chapter, respectively. The General Plan Circulation Element plans for a Class II bicycle lane along both sides of Nichols Road, directly north of the Project. The Circulation Element identifies a "Riverside County Regional Trail" within the southern portion of the Project

site along Stovepipe Creek and a "Lake Elsinore Regional Trail" along Nichols Road abutting the Project's northern boundary. The Project accommodates half-width frontage improvements including a 6-foot wide Class II bicycle lane on the southern edge of the roadway. The Class II bicycle lane along the northern edge of Nichols Road would be built by others in the future. Thus, the Project would be fully consistent with Figure 2.5 of the Community Form Chapter. The Project includes a curb-separated sidewalk along Nichols Road abutting the Project's northern boundary, a trail along Stovepipe Creek within Planning Area 8, and a trail along Stovepipe Creek within Planning Area 10. The trail within Planning Area 8 would connect to planned pedestrian facilities on "B" Street and would provide pedestrian connectivity north to the trail in Planning Area 10, and further north to the pedestrian facilities in Nichols Road. The regional trail within the Project site would provide connection to Nichols Road which would provide a connection to future regional trail projects in accordance with Figure 2.6 of the Circulation Element.

The Project would be consistent with or otherwise would not conflict with the goals and policies set forth in the Circulation Element. Accordingly, the Project would not conflict with the Circulation Element, and impacts would be less than significant. (Lake Elsinore, 2011a)

### *Community Form-Growth Management Element*

The Growth Management Element provides goals and policies to ensure that public services do not lag behind population growth and the concomitant demands created by a larger population. The Growth Management Element aids in anticipating the demands for public services and infrastructure to establish adequate services and infrastructure at a rate that meets the rate of new construction in the City. The Project's impacts to public services have been evaluated in EIR Subsection 4.13, *Public Services*, and where potential impacts associated with public services are identified, the EIR identifies mitigation measures, standard regulatory requirements, or Project design features that would reduce impacts to less-than-significant levels. There are no potential impacts to public services affecting the Project site that have not already been discussed by this EIR. Additionally, the Project would be consistent with or otherwise would not conflict with the goals and policies of the Growth Management Element. Therefore, impacts due to a conflict with the Growth Management Element would be less than significant. (Lake Elsinore, 2011a, pp. 2-41, 2-42)

### *Community Form-Housing Element*

The 2014-2021 Housing Element identifies and establishes City policies intended to fulfill the housing needs of existing and future residents in the City of Lake Elsinore. The Housing Element is separated into five key sections Community Profile and Housing Needs Assessment; Housing Constraints Analysis; Housing Resources-Site Inventory and Analysis; Housing Element Plan; and Review of Past (2008-2014) Accomplishments. The proposed Project would relate directly to the Housing Element Plan portion of the Housing Element. Included within the Housing Element Plan are a series of goals relating to housing diversity, neighborhood quality, and housing assistance. The Project would be consistent with or otherwise would not conflict with any of the adopted Housing Element goals. Additionally, the Project would provide for up to 168 single-family residential homes, which would assist the City in meeting its share of the regional housing need. Accordingly, the Project would not conflict with the Housing Element, and impacts would be less than significant. (Lake Elsinore, 2013, p. 1)

### *Community Form-Parks and Recreation Element*

The Parks and Recreation Element includes goals and polices designed to provide the City with the tools and opportunities necessary to create a recreational destination and foster community building for the City of Lake Elsinore. Policy 8.2 of the Community Form Chapter requires 5.0 acres of useable park land be provided per 1,000 residents in the City of Lake Elsinore. The Project would construct parks on-site in compliance with the requirements of Policy 8.2. Specifically, the Project is anticipated to generate approximately 628 future residents (refer to EIR subsection 3.3.2), which would generate a demand for 3.1 acres of parkland (628 persons x 5.0 acres parkland/1,000 persons = 3.1 acres). The Project accommodates approximately 8.3 acres of recreation uses, and therefore exceeds the population-based requirements of Policy 8.2. Figure 2.8 of the Community Form Chapter identifies existing and proposed parks throughout the City; however, the Project site is not identified as a location for any existing or proposed parks. Additionally, the Project would be consistent with or otherwise would not conflict with the goals and policies of the Parks and Recreation Element, and impacts would be less than significant. (Lake Elsinore, 2011a, pp. 2-43 to 2-48)

### *Public Safety and Welfare*

The Public Safety and Welfare Chapter of the General Plan addresses public safety and welfare issues, including: air quality; fire and police/law enforcement; community facilities and services; hazards; and noise within the City and the Sphere of Influence. These topical areas have been evaluated throughout this EIR, and where potential impacts associated with safety hazards are identified the EIR identifies mitigation measures, standard regulatory requirements, and/or Project design features that would reduce impacts to less-than-significant levels. There are no potential safety hazards affecting the Project site or surrounding areas that have not already been addressed by this EIR. Additionally, the Project would be consistent with or otherwise would not conflict with the goals and policies of the Public Safety and Welfare Chapter. Therefore, impacts due to a conflict with the Public Safety and Welfare Chapter would be less than significant. (Lake Elsinore, 2011a, p. 3-1)

### *Resource Protection and Preservation*

The Resource Protection and Preservation Chapter of the General Plan addresses resource protection and preservation issues related to biological resources; open space; water resources; cultural and paleontological resources; and aesthetic resources within the City and the SOI. These topical areas have been evaluated throughout this EIR, and where potential impacts associated with resource protection and preservation are identified, the EIR identifies mitigation measures, standard regulatory requirements, or Project design features that would reduce impacts to the maximum feasible extent. There are no potential resource protection and preservation policies affecting the Project site or surrounding areas that have not already been addressed by this EIR. Additionally, the Project would be consistent with or otherwise would not conflict with the goals and policies of the Resource Protection and Preservation Chapter. Therefore, impacts due to a conflict with the Resource Protection and Preservation Chapter would be less than significant. (Lake Elsinore, 2011a, Chapter 4.0)

### *Alberhill District Plan*

The main concept of the Alberhill District Plan is a coordinated and balanced set of communities with supporting uses that maintain a high quality of life. The goals and policies contained within the Alberhill District Plan reflect the general intentions of the City adopted specific plans for those areas. The northern 45.4 acres of the Project site are located within the ARSP, which designates the site for "Commercial – Specific Plan" land uses. Although the Project proposes more dwelling units and less retail space than assumed by the General Plan. The Project proposes a General Plan Amendment (GPA 2018-01), Specific Plan Amendment (SPA No. 2017-03), and Specific Plan (SP No. 2018-01) to change the site's land use designation to allow for residential and commercial uses. There are no adverse environmental effects associated with such changes that have not already been evaluated and addressed throughout this EIR. The Project would be consistent with the goals of the Alberhill District Plan, including the goal to support and maintain a healthy transition from extractive/mining activities to a network of residential communities with a balanced mixed of residential and commercial uses. The Project would be consistent with or otherwise would not conflict with the goals and policies of the Alberhill District Plan. Therefore, impacts due to a conflict with the Alberhill District Plan would be less than significant. (Lake Elsinore, 2011a, p. AH-1)

### *North Central Sphere District*

The main focus of the North Central Sphere District Plan is to preserve existing natural resources, ensure residential development incorporates the surrounding landscape, and ensure that business activities in the District are compatible with surrounding land uses. The goals and policies contained within the North Central Sphere District Plan focus on supporting development while preserving the topography and views in the North Central Sphere District. The southern 27.1 acres of the Project site are located within the North Central Sphere District Plan, which designates the site for "General Commercial" land uses. Although the Project proposes more dwelling units and less retail space than assumed by the General Plan. The Project proposes a General Plan Amendment (GPA 2018-01) and Specific Plan (SP No. 2018-01) to change the site's land use designation to allow for residential, commercial, and recreational uses. There are no adverse environmental effects associated with such changes that have not already been evaluated and addressed throughout this EIR. The Project would be consistent with the goals of the North Central Sphere District Plan, including the goal to make planned residential and professional uses compatible with the surrounding development. The Project would be consistent with or otherwise would not conflict with the goals and policies of the North Central Sphere District Plan. Therefore, impacts due to a conflict with the North Central Sphere District Plan would be less than significant. (Lake Elsinore, 2011a, p. NCS-1)

### *Conclusion*

As demonstrated in the preceding analysis, the Project would not conflict with any General Plan goals, policies, or requirements. Additionally, the Project would not result in any significant environmental impacts resulting from a conflict with the General Plan. Accordingly, impacts due to a conflict with the General Plan would be less than significant.

## ❑ Project Consistency with City of Lake Elsinore Municipal Code

Zone Change (ZC 2018-01) proposes to modify the zoning designation on the southern 27.1 acres of the site from "Commercial Mixed Use (CMU)" to "Nichols Ranch Specific Plan." ZC No. 2018-01 also would change the zoning designation of the northern 45.4 acres of the site from "Alberhill Ranch Specific Plan" to "Nichols Ranch Specific Plan." Additionally, ZC No. 2018-01 would establish allowable uses and development standards for the 72.5-acre proposed Nichols Ranch Specific Plan area.

Although the proposed Project would be inconsistent with the Zoning Ordinance's existing "Alberhill Ranch Specific Plan" and "Commercial Mixed Use" zoning designations, such inconsistencies would only be significant if it were to result in significant, adverse physical effects to the environment that would not likely otherwise occur with implementation of the proposed Zone Change. As disclosed in this EIR, implementation of the proposed Project would develop the subject property with residential, commercial, and recreational uses, which would result in adverse effects to the environment. This EIR provides mitigation measures for each EIR issue area where necessary to reduce the Project's effects to the environment to the maximum feasible extent. Accordingly, the Project's inconsistency with the City of Lake Elsinore Zoning Ordinance's "Alberhill Ranch Specific Plan" and "Commercial Mixed Use" zoning designations is considered less than significant.

## ❑ Project Consistency with the SCAG 2016-2040 RTP/SCS

The SCAG Regional Council adopted the 2016-2040 RTP/SCS in April 2016. The 2016 RTP/SCS seeks to improve mobility, promote sustainability, facilitate economic development and preserve the quality of life for the residents in the region. The long-range visioning plan balances future mobility and housing needs with goals for the environment, the regional economy, social equity and environmental justice, and public health. The goals included in the 2016 RTP/SCS are pertinent to the proposed Project. These goals are meant to provide guidance for considering the proposed Project within the context of regional goals and policies. An analysis of the Project's consistency with the relevant goals of the 2016 RTP/SCS are presented below in Table 4.10-1, *Analysis of Consistency with SCAG 2016-2040 RTP/SCS Goals*. As indicated the Project would not conflict with any of the RTP/SCS goals and impacts due to a conflict would be less than significant.

**Table 4.10-1 Analysis of Consistency with SCAG 2016-2040 RTP/SCS Goals**

| RTP/SCS Goal | Goal Statement | Project Consistency Discussion |
|---|---|---|
| G1 | Align the plan investments and policies with improving regional economic development and competitiveness. | No inconsistency identified. This policy would be implemented by cities and the counties within the SCAG region as part of comprehensive local and regional planning efforts. |
| G2 | Maximize mobility and accessibility for all people and goods in the region. | No inconsistency identified. EIR Subsection 4.14, *Transportation and Traffic*, evaluates Project-related traffic impacts and specifies mitigation measures to ensure that roadway and intersection and intersection improvements needed to accommodate Project traffic volumes are implemented concurrent with proposed development, to the extent feasible. |

| RTP/SCS GOAL | GOAL STATEMENT | PROJECT CONSISTENCY DISCUSSION |
|---|---|---|
| G3 | Ensure travel safety and reliability for all people and goods in the region. | No inconsistency identified. As disclosed in Subsection 4.15, *Transportation and Traffic*, there is no component of the proposed Project that would result in a substantial safety hazard to motorists (refer to analysis under Threshold d in subsection 4.15.4.) Furthermore, EIR Subsection 4.15 specifies mitigation measures to ensure that roadway and intersection improvements meet safety standards and operate as efficiently as is feasible. |
| G4 | Preserve and ensure a sustainable regional transportation system. | No inconsistency identified. This policy would be implemented by cities and the counties within the SCAG region as part of the overall planning and maintenance of the regional transportation system. The Project would have no adverse effect on such planning or maintenance efforts. |
| G5 | Maximize the productivity of our transportation system. | No inconsistency identified. This policy would be implemented by cities and the counties within the SCAG region as part of comprehensive transportation planning efforts. The Project would be consistent with the City of Lake Elsinore General Plan Circulation Element, which meets this goal to maximize productivity. |
| G6 | Protect the environment and health for our residents by improving air quality and encouraging active transportation (non-motorized transportation, such as bicycling and walking). | No inconsistency identified. An analysis of the Project's environmental impacts is provided throughout this EIR, and mitigation measures are specified where warranted. Air quality is addressed in EIR Subsection 4.2, *Air Quality*, and mitigation measures are specified to reduce the Project's air quality impacts to the extent feasible. Additionally, and as discussed in EIR Subsection 4.5, *Greenhouse Gas Emissions*, the Project proposes to incorporate various measures related to building design, landscaping, and energy systems to promote the efficient use of energy. Additionally, the Project proposes to implement sidewalk and bike lane improvements along public roadway rights-of-way in a manner that is consistent with the City of Lake Elsinore General Plan. The Project study area is within the service area of the Riverside Transit Authority (RTA), a public transit agency serving various jurisdictions within Riverside County, although no bus service exists in the immediate Project vicinity under existing conditions. As described in EIR Subsection 4.15, Threshold f., the Project would not conflict with any existing or planned RTA routes. |
| G7 | Actively encourage and create incentives for energy efficiency, where possible. | No inconsistency identified. This policy provides guidance to City staff to establish local incentive programs to encourage and promote energy efficient development. The Project's proposed design features related to building design, landscaping, and energy systems to promote the efficient use of energy are discussed throughout this EIR. |
| G8 | Encourage land use and growth patterns that facilitate transit and non-motorized transportation. | No inconsistency identified. This policy provides guidance to the City to establish a regional land use plan that facilitates the use of transit and non-motorized forms of transportation. The Project proposes to implement sidewalk and bike lane improvements along public roadway rights-of-way in a manner that is consistent with the City of Lake Elsinore General Plan. Based on the foregoing analysis, the Project would not conflict with this RTP/SCS goal. |

| RTP/SCS Goal | Goal Statement | Project Consistency Discussion |
|---|---|---|
| G9 | Maximize the security of the regional transportation system through improved system monitoring, rapid recovery planning, and coordination with other security agencies. | No inconsistency identified. This policy provides guidance to the City of Lake Elsinore to monitor the transportation network and to coordinate with other agencies as appropriate. |

## 4.10.5 Cumulative Impact Analysis

This cumulative impact analysis considers development of the proposed Project in conjunction with other development projects and planned development in the vicinity of the Project site, including build-out of the City of Lake Elsinore General Plan Land Use Plan.

The entire Project site consists of vacant land under existing conditions. There are no components of the proposed Project with the potential to physically divide any of these existing communities, and the Project would provide pedestrian pathways and public roadways throughout the development that would ensure access to and between surrounding residential neighborhoods would not be affected. As such, the Project has no potential to result in cumulatively-considerable impacts associated with the physical arrangement of an established community.

As discussed in the analysis discussion under Threshold b. above, the Project would be consistent with SCAG's RTP/SCS, and the policies of the City of Lake Elsinore General Plan. Other projects in the vicinity would also be required to be consistent with SCAG's RTP/SCS and the policies of the Lake Elsinore General Plan or the general plans of other jurisdictions. As such, the Project has no potential to result in cumulatively-considerable impacts due to a conflict with applicable land use policies, and impacts would be less than significant.

## 4.10.6 Significance of Impacts Before Mitigation

Threshold a: No Impact. The Project would not physically disrupt or divide any established communities, and no impact would occur.

Threshold b: Less-than-Significant Impact. Although the Project would change the site's existing General Plan land use and zoning classifications, the Project would not result in a significant environmental effect due to an inconsistency with the site's existing or proposed zoning. Furthermore, the Project would be consistent with the General Plan and SCAG RTP/SCS goals. Impacts due to a conflict with the land use designations and policies of the General Plan and other planning documents would be less than significant.

## 4.10.7 City Regulations, Design Requirements, and Mitigation

Impacts to land use and planning would be less than significant; therefore, mitigation is not required.

# 4.11 NOISE

This Subsection addresses the environmental issue of noise. The information in this Subsection is based in part on a technical report prepared by Urban Crossroads, Inc., titled, "Nichols Ranch Noise Impact Analysis" (NIA), dated January 2, 2019, and appended to this EIR as *Technical Appendix J*. (Urban Crossroads, 2019)

## 4.11.1 ACOUSTICAL FUNDAMENTALS

### *A. Noise Definitions*

Noise has been simply defined as "unwanted sound." Sound becomes unwanted when it interferes with normal activities, when it causes actual physical harm or when it has adverse effects on health. Noise is measured on a logarithmic scale of sound pressure level known as a decibel (dB). A-weighted decibels (dBA) approximate the subjective response of the human ear to broad frequency noise source by discriminating against very low and very high frequencies of the audible spectrum. They are adjusted to reflect only those frequencies which are audible to the human ear. Figure 4.11-1, *Typical Noise Levels*, presents a summary of the typical noise levels and their subjective loudness and effects that are described in more detail below. (Urban Crossroads, 2019, p. 13)

**Figure 4.11-1 Typical Noise Levels**

| COMMON OUTDOOR ACTIVITIES | COMMON INDOOR ACTIVITIES | A - WEIGHTED SOUND LEVEL dBA | SUBJECTIVE LOUDNESS | EFFECTS OF NOISE |
|---|---|---|---|---|
| THRESHOLD OF PAIN | | 140 | INTOLERABLE OR DEAFENING | HEARING LOSS |
| NEAR JET ENGINE | | 130 | | |
| | | 120 | | |
| JET FLY-OVER AT 300m (1000 ft) | ROCK BAND | 110 | | |
| LOUD AUTO HORN | | 100 | VERY NOISY | |
| GAS LAWN MOWER AT 1m (3 ft) | | 90 | | |
| DIESEL TRUCK AT 15m (50 ft), at 80 km/hr (50 mph) | FOOD BLENDER AT 1m (3 ft) | 80 | | SPEECH INTERFERENCE |
| NOISY URBAN AREA, DAYTIME | VACUUM CLEANER AT 3m (10 ft) | 70 | LOUD | |
| HEAVY TRAFFIC AT 90m (300 ft) | NORMAL SPEECH AT 1m (3 ft) | 60 | | |
| QUIET URBAN DAYTIME | LARGE BUSINESS OFFICE | 50 | MODERATE | SLEEP DISTURBANCE |
| QUIET URBAN NIGHTTIME | THEATER, LARGE CONFERENCE ROOM (BACKGROUND) | 40 | | |
| QUIET SUBURBAN NIGHTTIME | LIBRARY | 30 | FAINT | NO EFFECT |
| QUIET RURAL NIGHTTIME | BEDROOM AT NIGHT, CONCERT HALL (BACKGROUND) | 20 | | |
| | BROADCAST/RECORDING STUDIO | 10 | VERY FAINT | |
| LOWEST THRESHOLD OF HUMAN HEARING | LOWEST THRESHOLD OF HUMAN HEARING | 0 | | |

*Source: Environmental Protection Agency Office of Noise Abatement and Control, Information on Levels of Environmental Noise Requisite to Protect Public Health and Welfare with an Adequate Margin of Safety (EPA/ONAC 550/9-74-004) March 1974.*
(Urban Crossroads, 2019, Exhibit 2-A)

### B. Range of Noise

Since the range of intensities that the human ear can detect is so large, the scale frequently used to measure intensity is a scale based on multiples of 10, the logarithmic scale. The scale for measuring intensity is the decibel scale. Each interval of 10 decibels indicates a sound energy ten times greater than before, which is perceived by the human ear as being roughly twice as loud. The most common sounds vary between 40 dBA (very quiet) to 100 dBA (very loud). Normal conversation at three feet is roughly at 60 dBA, while loud jet engine noises equate to 110 dBA at approximately 100 feet, which can cause serious discomfort. Another important aspect of noise is the duration of the sound and the way it is described and distributed in time. (Urban Crossroads, 2019, pp. 13-14)

### C. Noise Descriptors

Environmental noise descriptors are generally based on averages, rather than instantaneous, noise levels. The most commonly used figure is the equivalent level (Leq). Equivalent sound levels are not measured directly but are calculated from sound pressure levels typically measured in A-weighted decibels (dBA). The equivalent sound level (Leq) represents a steady state sound level containing the same total energy as a time varying signal over a given sample period and is commonly used to describe the "average" noise levels within the environment. (Urban Crossroads, 2019, p. 14)

Peak hour or average noise levels, while useful, do not completely describe a given noise environment. Noise levels lower than peak hour may be disturbing if they occur during times when quiet is most desirable, namely evening and nighttime (sleeping) hours. To account for this, the Community Noise Equivalent Level (CNEL), representing a composite 24-hour noise level is utilized. The CNEL is the weighted average of the intensity of a sound, with corrections for time of day, and averaged over 24 hours. The time of day corrections require the addition of 5 decibels to dBA Leq sound levels in the evening from 7:00 p.m. to 10:00 p.m., and the addition of 10 decibels to dBA Leq sound levels at night between 10:00 p.m. and 7:00 a.m. These additions are made to account for the noise sensitive time periods during the evening and night hours when sound appears louder. CNEL does not represent the actual sound level heard at any time, but rather represents the total sound exposure. The City of Lake Elsinore relies on the 24-hour CNEL level to assess land use compatibility with transportation-related noise sources. (Urban Crossroads, 2019, p. 14)

### D. Sound Propagation

When sound propagates over a distance, it changes in level and frequency content. The way noise reduces with distance depends on the following factors. (Urban Crossroads, 2019, p. 14)

#### 1. Geometric Spreading

Sound from a localized source (i.e., a stationary point source) propagates uniformly outward in a spherical pattern. The sound level attenuates (or decreases) at a rate of 6 dB for each doubling of distance from a point source. Highways 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 dB for each doubling of distance from a line source. (Urban Crossroads, 2019, p. 14)

### 2. Ground Absorption

The propagation path of noise from a highway to a receiver 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 ft. For acoustically hard sites (i.e., sites with a reflective surface between the source and the receiver, 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 receiver such as soft dirt, grass, or scattered bushes and trees), an excess ground attenuation value of 1.5 dB 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 dB per doubling of distance from a line source. (Urban Crossroads, 2019, pp. 14-15)

### 3. Atmospheric Effects

Receivers 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) 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. (Urban Crossroads, 2019, p. 15)

### 4. Shielding

A large object or barrier in the path between a noise source and a receiver can substantially attenuate noise levels at the receiver. The amount of attenuation provided by shielding depends on the size of the object and the frequency content of the noise source. Shielding by trees and other such vegetation typically only has an "out of sight, out of mind" effect. That is, the perception of noise impact tends to decrease when vegetation blocks the line-of-sight to nearby resident. However, for vegetation to provide a substantial, or even noticeable, noise reduction, the vegetation area must be at least 15 feet in height, 100 feet wide, and dense enough to completely obstruct the line-of sight between the source and the receiver. This size of vegetation may provide up to 5 dBA of noise reduction. The Federal Highway Administration (FHWA) does not consider the planting of vegetation to be a noise abatement measure. (Urban Crossroads, 2019, p. 15)

## E. Noise Control

Noise control is the process of obtaining an acceptable noise environment for an observation point or receiver by controlling the noise source, transmission path, receiver, or all three. This concept is known as the source-path-receiver concept. In general, noise control measures can be applied to these three elements. (Urban Crossroads, 2019, p. 15)

## F. Noise Barrier Attenuation

Effective noise barriers can reduce noise levels by 10 to 15 dBA, cutting the loudness of traffic noise in half. A noise barrier is most effective when placed close to the noise source or receiver. Noise barriers, however, do have limitations. For a noise barrier to work, it must be high enough and long enough to block the path of the noise source. (Urban Crossroads, 2019, p. 15)

## G. Land Use Compatibility with Noise

Some land uses are more tolerant of noise than others. For example, schools, hospitals, churches, and residences are more sensitive to noise intrusion than are commercial or industrial developments and related activities. As ambient noise levels affect the perceived amenity or livability of a development, so too can the mismanagement of noise impacts impair the economic health and growth potential of a community by reducing the area's desirability as a place to live, shop, and work. For this reason, land use compatibility with the noise environment is an important consideration in the planning and design process. The FHWA encourages state and local governments to regulate land development in such a way that noise-sensitive land uses are either prohibited from being located adjacent to a highway, or that the developments are planned, designed, and constructed in such a way that noise impacts are minimized. (Urban Crossroads, 2019, p. 16)

## H. Community Response to Noise

Community responses to noise may range from registering a complaint by telephone or letter, to initiating court action, depending upon everyone's susceptibility to noise and personal attitudes about noise. Several factors are related to the level of community annoyance including: (Urban Crossroads, 2019, p. 16)

- Fear associated with noise producing activities;
- Socio-economic status and educational level;
- Perception that those affected are being unfairly treated;
- Attitudes regarding the usefulness of the noise-producing activity;
- Belief that the noise source can be controlled.

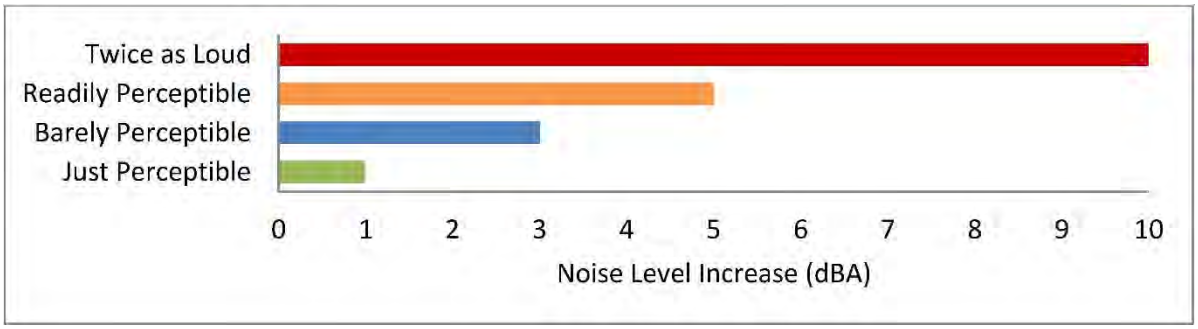
Approximately ten percent of the population has a very low tolerance for noise and will object to any noise not of their making. Consequently, even in the quietest environment, some complaints will occur. Another twenty-five percent of the population will not complain even in very severe noise environments. Thus, a variety of reactions can be expected from people exposed to any given noise environment. Surveys have shown that about ten percent of the people exposed to traffic noise of 60 dBA will report being highly annoyed with the noise, and each increase of one dBA is associated with approximately two percent more people being highly annoyed. When traffic noise exceeds 60 dBA or aircraft noise exceeds 55 dBA, people may begin to complain. Despite this variability in behavior on an individual level, the population can be expected to exhibit the responses to changes in noise levels as shown on Figure 4.11-2, *Noise Level Increase Perception*. An increase or decrease of 1 dBA cannot be perceived except in carefully controlled laboratory experiments, a change of 3 dBA are considered barely perceptible, and changes of 5 dBA are considered readily perceptible. (Urban Crossroads, 2019, p. 16)

## I. Vibration

Per the Federal Transit Administration (FTA) Transit Noise Impact and Vibration Assessment, vibration is the periodic oscillation of a medium or object. The rumbling sound caused by the vibration of room surfaces is called structure-borne noise. Sources of ground-borne vibrations include natural phenomena (e.g., earthquakes, volcanic eruptions, sea waves, landslides) or human-made causes (e.g., explosions, machinery, traffic, trains, construction equipment). Vibration sources may be continuous, such as factory machinery, or

transient, such as explosions. As is the case with airborne sound, ground-borne vibrations may be described by amplitude and frequency. (Urban Crossroads, 2019, p. 17)

**Figure 4.11-2 Noise Level Increase Perception**




(Urban Crossroads, 2019, Exhibit 2-B)

There are several different methods that are used to quantify vibration. The peak particle velocity (PPV) is defined as the maximum instantaneous peak of the vibration signal. The PPV is most frequently used to describe vibration impacts to buildings, but is not always suitable for evaluating human response (annoyance) because it takes some time for the human body to respond to vibration signals. Instead, the human body responds to average vibration amplitude often described as the root mean square (RMS). The RMS amplitude is defined as the average of the squared amplitude of the signal, and is most frequently used to describe the effect of vibration on the human body. Decibel notation (VdB) is commonly used to measure RMS. Decibel notation (VdB) serves to reduce the range of numbers used to describe human response to vibration. Typically, ground-borne vibration generated by man-made activities attenuates rapidly with distance from the source of the vibration. Sensitive receivers for vibration include structures (especially older masonry structures), people (especially residents, the elderly, and sick), and vibration-sensitive equipment. (Urban Crossroads, 2019, p. 17)

The background vibration-velocity level in residential areas is generally 50 VdB. Ground-borne vibration is normally perceptible to humans at approximately 65 VdB. For most people, a vibration-velocity level of 75 VdB is the approximate dividing line between barely perceptible and distinctly perceptible levels. Typical outdoor sources of perceptible ground-borne vibration are construction equipment, steel-wheeled trains, and traffic on rough roads. If a roadway is smooth, the ground-borne vibration is rarely perceptible. The range of interest is from approximately 50 VdB, which is the typical background vibration-velocity level, to 100 VdB, which is the general threshold where minor damage can occur in fragile buildings. Exhibit 2-C of the Project's NIA (*Technical Appendix J*) illustrates common vibration sources and the human and structural response to ground-borne vibration. (Urban Crossroads, 2019, p. 17)

## 4.11.2 Existing Noise Conditions

### *A. Existing Ambient Noise Environment*

To assess the existing noise level environment, six 24-hour noise level measurements were taken at sensitive receiver locations in the Project study area. The receiver locations were selected to describe and document the existing noise environment within the Project study area. Figure 4.11-3, *Noise Measurement Locations*,

provides the boundaries of the Project study area and the noise level measurement locations. To fully describe the existing noise conditions, noise level measurements were collected by Urban Crossroads, Inc. on Friday, May 12th, 2017. The 24-hour noise level measurements were taken in coordination with the Project Applicant so that no on-site reclamation activities were occurring at the Project site during the noise measurements. (Urban Crossroads, 2019, p. 33)

To describe the existing noise environment, the hourly noise levels were measured during typical weekday conditions over a 24-hour period. By collecting individual hourly noise level measurements, it is possible to describe the daytime and nighttime hourly noise levels and calculate the 24-hour CNEL. The long-term noise readings were recorded using Piccolo Type 2 integrating sound level meter and dataloggers. The Piccolo sound level meters were calibrated using a Larson-Davis calibrator, Model CAL 150. All noise meters were programmed in "slow" mode to record noise levels in "A" weighted form. The sound level meters and microphones were equipped with a windscreen during all measurements. All noise level measurement equipment satisfies the American National Standards Institute (ANSI) standard specifications for sound level meters ANSI S1.4-2014/IEC 61672-1:2013. (Urban Crossroads, 2019, p. 33)

The long-term noise level measurements were positioned as close to the nearest sensitive receiver locations as possible to assess the existing ambient hourly noise levels surrounding the Project site. Both Caltrans and the FTA recognize that it is not reasonable to collect noise level measurements that can fully represent any part of a private yard, patio, deck, or balcony normally used for human activity when estimating impacts for new development projects. This is demonstrated in the Caltrans general site location guidelines which indicate that, sites must be free of noise contamination by sources other than sources of interest. Avoid sites located near sources such as barking dogs, lawnmowers, pool pumps, and air conditioners unless it is the express intent of the analyst to measure these sources. Further, FTA guidance states that it is not necessary nor recommended that existing noise exposure be determined by measuring at every noise-sensitive location in the project area. Rather, the recommended approach is to characterize the noise environment for clusters of sites based on measurements or estimates at representative locations in the community. (Urban Crossroads, 2019, p. 33)

Based on recommendations of Caltrans and the FTA, it is not necessary to collect measurements at each individual building or residence, because each receiver measurement represents a group of buildings that share acoustical equivalence. In other words, the area represented by the receiver shares similar shielding, terrain, and geometric relationship to the reference noise source. Receivers represent a location of noise sensitive areas and are used to estimate the future noise level impacts. Collecting reference ambient noise level measurements at the nearby sensitive receiver locations allows for a comparison of the before and after Project noise levels and is necessary to assess potential noise impacts due to the Project's contribution to the ambient noise levels. (Urban Crossroads, 2019, pp. 33-34)

The noise measurements presented below focus on the average or equivalent sound levels (Leq). The equivalent sound level (Leq) represents a steady state sound level containing the same total energy as a time varying signal over a given sample period. Table 4.11-1, *24-Hour Ambient Noise Level Measurements*, identifies the hourly daytime (7:00 a.m. to 10:00 p.m.) and nighttime (10:00 p.m. to 7:00 a.m.) noise levels at each noise level measurement location. Appendix 5.2 of the Project's NIA (*Technical Appendix J*) provides a summary of the existing hourly ambient noise levels described below. (Urban Crossroads, 2019, p. 34)




Source(s): Urban Crossroads (08-28-2018)

Figure 4.11-3

NOT TO SCALE

**NOISE MEASUREMENT LOCATIONS**

## Table 4.11-1 24-Hour Ambient Noise Level Measurements

| Location[1] | Distance to Project Boundary (Feet) | Description | Energy Average Noise Level (dBA $L_{eq}$)[2] | | Median Noise Level (dBA $L_{50}$)[2] | | CNEL |
|---|---|---|---|---|---|---|---|
| | | | Daytime | Nighttime | Daytime | Nighttime | |
| L1 | 0' | Located on Nichols Road adjacent to the northern Project site boundary, south of existing Chandler Aggregates activity. | 61.4 | 61.4 | 50.6 | 46.2 | 68.0 |
| L2 | 0' | Located on Nichols Road at the northern Project site boundary. | 58.3 | 56.5 | 49.1 | 45.7 | 63.4 |
| L3 | 600' | Located east of the Project site, north of Nichols Road, near existing residential homes. | 68.4 | 65.1 | 62.7 | 59.2 | 72.3 |
| L4 | 0' | Located at the eastern Project site boundary on Wood Mesa Court near existing residential homes. | 56.0 | 53.9 | 50.9 | 49.9 | 60.9 |
| L5 | 130' | Located southeast of the Project site on El Toro Road near existing residential homes and Temescal Canyon High School. | 64.8 | 62.3 | 54.7 | 53.7 | 69.8 |
| L6 | 610' | Located south of the Project site on El Toro Road near existing residential homes and Temescal Canyon High School. | 71.9 | 68.9 | 61.5 | 57.8 | 76.1 |

1 See Figure 4.11-3 for the noise level measurement locations.
2 The long-term 24-hour measurement printouts are included in Appendix 5.2 of the Project's NIA (*Technical Appendix J*). "Daytime" = 7:00 a.m. to 10:00 p.m.; "Nighttime" = 10:00 p.m. to 7:00 a.m.
(Urban Crossroads, 2019, Table 5-1)

- Location L1 represents the noise levels on Nichols Road adjacent to the northern Project site boundary, south of the existing mining operation located north of Nichols Road. The noise level measurements collected show an overall 24-hour exterior noise level of 68.0 dBA CNEL. The energy (logarithmic) average daytime noise level was calculated at 61.4 dBA Leq with an average nighttime noise level of 61.4 dBA Leq. (Urban Crossroads, 2019, p. 34)

- Location L2 represents the noise levels on Nichols Road at the northern Project site boundary. The noise level measurements collected show an overall 24-hour exterior noise level of 63.4 dBA CNEL. The energy (logarithmic) average daytime noise level was calculated at 58.3 dBA Leq with an average nighttime noise level of 56.5 dBA Leq. (Urban Crossroads, 2019, p. 34)

- Location L3 represents the noise levels east of the Project site, north of Nichols Road, near existing residential homes. The 24-hour CNEL indicates that the overall exterior noise level is 72.3 dBA

CNEL. The energy (logarithmic) average daytime noise level was calculated at 68.4 dBA Leq with an average nighttime noise level of 65.1 dBA Leq. (Urban Crossroads, 2019, p. 34)

- Location L4 represents the noise levels at the eastern Project site boundary on Wood Mesa Court near existing residential homes. The noise level measurements collected show an overall 24-hour exterior noise level of 60.9 dBA CNEL. The energy (logarithmic) average daytime noise level was calculated at 56.0 dBA Leq with an average nighttime noise level of 53.9 dBA Leq. (Urban Crossroads, 2019, p. 34)

- Location L5 represents the noise levels southeast of the Project site on El Toro Road near existing residential homes and Temescal Canyon High School. The noise level measurements collected show an overall 24-hour exterior noise level of 69.8 dBA CNEL. The energy (logarithmic) average daytime noise level was calculated at 64.8 dBA Leq with an average nighttime noise level of 62.3 dBA Leq. (Urban Crossroads, 2019, p. 34)

- Location L6 represents the noise levels south of the Project site on El Toro Road near existing residential homes and Temescal Canyon High School. The 24-hour CNEL indicates that the overall exterior noise level is 76.1 dBA CNEL. The energy (logarithmic) average daytime noise level was calculated at 71.9 dBA Leq with an average nighttime noise level of 68.9 dBA Leq. (Urban Crossroads, 2019, p. 34)

Table 4.11-1 provides the (energy average) noise levels used to describe the daytime and nighttime ambient conditions. These daytime and nighttime energy average noise levels represent the average of all hourly noise levels observed during these time periods expressed as a single number. Appendix 5.2 of the Project's NIA (*Technical Appendix J*) provides summary worksheets of the noise levels for each hour as well as the minimum, maximum, L1, L2, L5, L8, L25, L50, L90, L95, and L99 percentile noise levels observed during the daytime and nighttime periods. (Urban Crossroads, 2019, p. 35)

The background ambient noise levels in the Project study area are dominated by the transportation-related noise associated with the arterial roadway network. This includes the auto and heavy truck activities on I-15 near the noise level measurement locations. Additional background noise sources include activities at the existing mining operation north of the Project site. The 24-hour existing noise level measurements shown on Table 4.11-1 present the existing ambient noise conditions. (Urban Crossroads, 2019, p. 35)

### *B. Existing Ground-borne Vibration*

Ground-borne vibration levels from automobile traffic are generally overshadowed by vibration generated by heavy trucks that roll over the same uneven roadway surfaces. However, due to the rapid drop-off rate of ground-borne vibration and the short duration of the associated events, vehicular traffic-induced ground-borne vibration is rarely perceptible beyond the roadway right-of-way, and rarely results in vibration levels that cause damage to buildings in the vicinity. Under existing conditions, mining equipment associated with on-going reclamation activities produces ground-borne vibration; however, these sources of ground-borne vibration are expected to cease upon completion of reclamation activities and prior to buildout of the proposed Project.

### C. *Airport-Related Noise*

The Project site is located approximately 12 miles southwest of the March Air Reserve Base, which is the nearest public airport facility within the Project site's vicinity. The nearest airport to the proposed Project is Skylark Field, a private use airport located 5.7 miles southeast of the Project site. The Project site does not occur within the Airport Influence Area (AIA) for either of these airports, which indicates that the Project site is not subject to substantial airport-related noise under existing conditions.

## 4.11.3 APPLICABLE ENVIRONMENTAL REGULATIONS

Federal, state, and local agencies regulate different aspects of environmental noise. Federal and state agencies generally set noise standards for mobile sources such as aircraft and motor vehicles, while regulation of stationary sources is left to local agencies. Local noise standards and guidelines are often based on the broader guidelines established by state and federal agencies. The following is a brief description of the federal, state, and local environmental laws and related regulations related to noise. (Urban Crossroads, 2019, p. 19)

### A. *Federal Regulations*

#### 1. *Noise Control Act of 1972*

The Noise Control Act of 1972 establishes a national policy to promote an environment for all Americans free from noise that jeopardizes their health and welfare. The Act also serves to (1) establish a means for effective coordination of Federal research and activities in noise control; (2) authorize the establishment of Federal noise emission standards for products distributed in commerce; and (3) provide information to the public respecting the noise emission and noise reduction characteristics of such products. (EPA, 2017h)

While primary responsibility for control of noise rests with State and local governments, Federal action is essential to deal with major noise sources in commerce, control of which require national uniformity of treatment. The Environmental Protection Agency (EPA) is directed by Congress to coordinate the programs of all Federal agencies relating to noise research and noise control. (EPA, 2017h)

#### 2. *Federal Transit Administration*

The Federal Transit Administration (FTA) has published a Noise and Vibration Impact Assessment (NVIA), which provides guidance for preparing and reviewing the noise and vibration sections of environmental documents. In the interest of promoting quality and uniformity in assessments, the manual is used by project sponsors and consultants in performing noise and vibration analyses for inclusion in environmental documents. The manual sets forth the methods and procedures for determining the level of noise and vibration impact resulting from most federally-funded transit projects and for determining what can be done to mitigate such impact. (FTA, 2006, p. 1-1)

The NVIA also establishes criteria for acceptable ground-borne vibration, which are expressed in terms of root mean square (rms) velocity levels in decibels and the criteria for acceptable ground-borne noise are expressed in terms of A-weighted sound levels. As shown in Table 4.11-2, *Ground-Borne Vibration and Ground-Borne Noise Impact Criteria for General Assessment*, the FTA identifies three categories of land uses and provides

Ground-Based Vibration (GBV) and Ground-Based Noise (GBN) criteria for each category of land use. (FTA, 2006, pp. 8-3 and 8-4)

**Table 4.11-2 Ground-Borne Vibration and Ground-Borne Noise Impact Criteria for General Assessment**

| Land Use Category | GBV Impact Levels (VdB re 1 micro-inch /sec) | | | GBN Impact Levels (dB re 20 micro Pascals) | | |
|---|---|---|---|---|---|---|
| | Frequent Events[1] | Occasional Events[2] | Infrequent Events[3] | Frequent Events[1] | Occasional Events[2] | Infrequent Events[3] |
| **Category 1**: Buildings where vibration would interfere with interior operations. | 65 VdB[4] | 65 VdB[4] | 65 VdB[4] | N/A[4] | N/A[4] | N/A[4] |
| **Category 2**: Residences and buildings where people normally sleep. | 72 VdB | 75 VdB | 80 VdB | 35 dBA | 38 dBA | 43 dBA |
| **Category 3**: Institutional land uses with primarily daytime use. | 75 VdB | 78 VdB | 83 VdB | 40 dBA | 43 dBA | 48 dBA |

**Notes:**

1. "Frequent Events" is defined as more than 70 vibration events of the same source per day. Most rapid transit projects fall into this category.
2. "Occasional Events" is defined as between 30 and 70 vibration events of the same source per day. Most commuter trunk lines have this many operations.
3. "Infrequent Events" is defined as fewer than 30 vibration events of the same kind per day. This category includes most commuter rail branch lines.
4. This criterion limit is based on levels that are acceptable for most moderately sensitive equipment such as optical microscopes. Vibration-sensitive manufacturing or research will require detailed evaluation to define the acceptable vibration levels. Ensuring lower vibration levels in a building often requires special design of the HVAC systems and stiffened floors.
5. Vibration-sensitive equipment is generally not sensitive to ground-borne noise.

(FTA, 2006, Table 8-1)

### *3. Federal Aviation Administration*

The Federal Aviation Administration (FAA) regulates the maximum noise level that an individual civil aircraft can emit through requiring aircraft to meet certain noise certification standards. These standards designate changes in maximum noise level requirements by "stage" designation. The standard requires that the aircraft meet or fall below designated noise levels. For civil jet aircraft, there are four stages identified, with Stage 1 being the loudest and Stage 4 being the quietest. For helicopters, two different stages exist, Stage 1 and Stage 2. As with civil jet aircraft, Stage 2 is quieter than Stage 1. In addition, the FAA is currently working to adopt the latest international standards for helicopters, which will be called Stage 3 and will be quieter than Stage 2.

The FAA has undertaken a phase out of older, noisier civil aircraft, resulting in some stages of aircraft no longer being in the fleet. Currently within the contiguous US, civil jet aircraft over 75,000 pounds maximum take-off weight must meet Stage 3 and Stage 4 to fly. In addition, aircraft at or under 75,000 pounds maximum

take-off weight must meet Stage 2, 3, or 4 to operate within the U.S. In addition, by December 31, 2015, all civil jet aircraft, regardless of weight must meet Stage 3 or Stage 4 to fly within the contiguous U.S. Both Stage 1 and Stage 2 helicopters are allowed to fly within the U.S. (FAA, 2018)

The U.S. noise standards are defined in the Code of Federal Regulations (CFR) Title 14 Part 36 – *Noise Standards: Aircraft Type and Airworthiness Certification* (14 CFR Part 36). The FAA publishes certificated noise levels in the advisory circular, *Noise Levels for U.S Certificated and Foreign Aircraft*. This advisory circular provides noise level data for aircraft certificated under 14 CFR Part 36 and categorizes aircraft into their appropriate "stages." Any aircraft that is certified for airworthiness in the U.S. needs to also comply with noise standard requirements to receive a noise certification. The purpose of the noise certification process is to ensure that the latest available safe and airworthy noise reduction technology is incorporated into aircraft design and enables the noise reductions offered by those technologies to be reflected in reductions of noise experienced by communities. As noise reduction technology matures, the FAA works with the international community to determine if a new stringent noise standard is needed. If so, the international community through the International Civil Aviation Organization (ICAO) embarks on a comprehensive analysis to determine what that new standard will be. (FAA, 2016)

The current FAA noise standards applicable to new type certifications of jet and large turboprop aircraft is Stage 4. It is equivalent to the ICAO Annex 16, Volume 1 Chapter 4 standards. Recently, the international community has established and approved a more stringent standard within the ICAO Annex 16, Volume 1 Chapter 14, which became effective July 14, 2014. The FAA is adopting this standard and promulgating the rule for Stage 5 that is anticipated to be effective for new type certificates after December 31, 2017 and December 31, 2020, depending on the weight of the aircraft. The Notice of Proposed Rule Making (NPRM) for Stage 5 was published on January 14, 2016. (FAA, 2016)

For helicopters, the FAA has noise standards for a Stage 3 helicopter that became effective on May 5, 2014. These more stringent standards apply to new type helicopters and are consistent with ICAO Annex 16, Volume 1 Chapter 8 and Chapter 11. (FAA, 2016)

The FAA Modernization and Reform Act of 2012, in Section 513, had a prohibition on operating certain aircraft weighing 75,000 pounds or less not complying with Stage 3 noise levels, and on July 2, 2013, the FAA published a Final Rule in the Federal Register for the *Adoption of Statutory Prohibition the Operation of Jets Weighing 75,000 Pounds or Less That Are Not Stage 3 Noise Compliant*. In 1990, Congress passed the Aviation Noise and Capacity Act, which required that by the year 2000 all jet and large turboprop aircraft at civilian airports be Stage 3. (FAA, 2016)

### *4. Federal Highway Administration*

The Federal Highway Administration (FHWA) is the agency responsible for administering the Federal-aid highway program in accordance with Federal statutes and regulations. The FHWA developed the noise regulations as required by the Federal-Aid Highway Act of 1970 (Public Law 91-605, 84 Stat. 1713). The regulation, 23 CFR 772 *Procedures for Abatement of Highway Traffic Noise and Construction Noise*, applies to highway construction projects where a State department of transportation has requested Federal funding for participation in the project. The regulation requires the highway agency to investigate traffic noise impacts in

areas adjacent to federally-aided highways for proposed construction of a highway on a new location or the reconstruction of an existing highway to either significantly change the horizontal or vertical alignment or increase the number of through-traffic lanes. If the highway agency identifies impacts, it must consider abatement. The highway agency must incorporate all feasible and reasonable noise abatement into the project design. (FHWA, 2017)

The FHWA regulations for mitigation of highway traffic noise in the planning and design of federally aided highways are contained in Title 23 of the United States Code of Federal Regulations Part 772. The regulations require the following during the planning and design of a highway project:

- Identification of traffic noise impacts;
- Examination of potential mitigation measures;
- The incorporation of reasonable and feasible noise mitigation measures into the highway project; and
- Coordination with local officials to provide helpful information on compatible land use planning and control. (FHWA, 2017)

The regulations contain noise abatement criteria, which represent the upper limit of acceptable highway traffic noise for different types of land uses and human activities. The regulations do not require meeting the abatement criteria in every instance. Rather, they require highway agencies make every reasonable and feasible effort to provide noise mitigation when the criteria are approached or exceeded. Compliance with the noise regulations is a prerequisite for the granting of Federal-aid highway funds for construction or reconstruction of a highway. (FHWA, 2017)

#### *5. Construction-Related Hearing Conservation*

The Occupational Safety and Health Administration (OSHA) hearing conservation program is designed to protect workers with significant occupational noise exposures from hearing impairment even if they are subject to such noise exposures over their entire working lifetimes. Standard 29 CFR, Part 1910 indicates the noise levels under which a hearing conservation program is required to be provided to workers exposed to high noise levels. (OSHA, 2002) This analysis does not evaluate the noise exposure of construction workers within the Project site based on CEQA requirements, and instead, evaluates the Project-related construction noise levels at the nearby sensitive receiver locations in the Project study area. Further, periodic exposure to high noise levels in short duration, such as Project construction, is typically considered an annoyance and not impactful to human health. It would take several years of exposure to high noise levels to result in hearing impairment.

### *B. State Regulations*

#### *1. State of California Noise Requirements*

The State of California regulates freeway noise, sets standards for sound transmission, provides occupational noise control criteria, identifies noise standards, and provides guidance for local land use compatibility. State law requires that each county and city adopt a General Plan that includes a Noise Element which is to be prepared according to guidelines adopted by the Governor's Office of Planning and Research. The purpose of the Noise Element is to limit the exposure of the community to excessive noise levels.

### 2. Building Standards Code

The State of California's noise insulation standards are codified in the California Code of Regulations, Title 24, Building Standards Administrative Code, Part 2, and the California Building Standards Code. These noise standards are applied to new construction in California for the purpose of controlling interior noise levels resulting from exterior noise sources. The regulations specify that acoustical studies must be prepared when noise-sensitive structures, such as residential buildings, schools, or hospitals, are developed near major transportation noise sources, and where such noise sources create an exterior noise level of 60 dBA CNEL or higher. Acoustical studies that accompany building plans for noise-sensitive land uses must demonstrate that the structure has been designed to limit interior noise in habitable rooms to acceptable noise levels. For new residential buildings, schools, and hospitals, the acceptable interior noise limit for new construction is 45 dBA CNEL.

### 3. California Noise Insulation Standards

The California Noise Insulation Standards (CCR Title 25 Section 1092) establish uniform minimum noise insulation performance standards for new hotels, motels, dormitories, apartment houses, and dwellings other than detached single-family dwellings. Specifically, Title 25 specifies that interior noise levels attributable to exterior sources shall not exceed 45 dBA Ldn/CNEL (i.e., the same levels that the EPA recommends for residential interiors) in any habitable room of a new dwelling. An acoustical study must be prepared for proposed multiple unit residential and hotel/motel structures where outdoor Ldn/CNEL is 60 dBA or greater. The study must demonstrate that the design of the building would reduce interior noise to 45 dBA Ldn/CNEL or lower. Because noise levels can increase over time in developing areas, Title 25 also specifies that dwellings are to be designed so that interior noise levels will meet this standard for at least ten years from the time of building permit application.

### 4. OPR General Plan Guidelines

Though not adopted by law, the 2017 California General Plan Guidelines, published by the California Governor's Office of Planning and Research (OPR), provides guidance for local agencies in preparing or updating General Plans. The Guidelines provide direction on the required Noise Element portion of the General Plans. The purpose of the Noise Element is to limit the exposure of the community to excessive noise levels. Local governments must "analyze and quantify" noise levels and the extent of noise exposure through actual measurement or the use of noise modeling. Technical data relating to mobile and point sources must be collected and synthesized into a set of noise control policies and programs that "minimizes the exposure of community residents to excessive noise." Noise level contours must be mapped and the conclusions of the element used as a basis for land use decisions. The element must include implementation measures and possible solutions to existing and foreseeable noise problems. Furthermore, the policies and standards must be sufficient to serve as a guideline for compliance with sound transmission control requirements. The noise element directly correlates to the Land Use, Circulation, and Housing Elements. The Noise Element must be used to guide decisions concerning land use and the location of new roads and transit facilities since these are common sources of excessive noise levels. The noise levels from existing land uses, including mining, agricultural, and industrial activities, must be closely analyzed to ensure compatibility, especially where residential and other sensitive receptors have encroached into areas previously occupied by these uses. (OPR, 2017, pp. 131-132)

## C. Local Regulations

### 1. City of Lake Elsinore General Plan

The City of Lake Elsinore has adopted Section 3.7, Noise, of the Public Safety and Welfare Element of the General Plan to control and abate environmental noise, and to protect the citizens of Lake Elsinore from excessive exposure to noise. The Noise section specifies the maximum exterior noise levels allowable for new developments impacted by transportation noise sources such as arterial roads, freeways, airports, and railroads. In addition, the Noise section identifies noise polices designed to protect, create, and maintain an environment free from noise that may jeopardize the health or welfare of sensitive receivers, or degrade quality of life. To protect City of Lake Elsinore residents from excessive noise, the Noise section contains the following goal related to the Project: (Urban Crossroads, 2019, p. 20)

> *Goal 7 Maintain an environment for all City residents and visitors free of unhealthy, obtrusive, or otherwise excessive noise.*

To ensure noise-sensitive land uses are protected from excessive noise levels (Goal 7), the Noise section identifies the following policies: (Urban Crossroads, 2019, p. 20)

- *7.1 Apply the noise standards set forth in the Lake Elsinore Noise and Land Use Compatibility Matrix (see Table 4.11-3, Operational Exterior Noise Level Standards) and Interior and Exterior Noise Standards (see Table 4.11-4, Mobile Equipment Noise Level Limits) when considering all new development and redevelopment proposed within the City.*
- *7.2 Require that mixed-use structures and areas be designed to prevent transfer of noise and vibration from commercial areas to residential areas.*
- *7.3 Strive to reduce the effect of transportation noise on the I-15.*
- *7.4 Consider estimated roadway noise contours based upon Figure 3.6, Noise Contours, when making land use design decisions along busy roadways throughout the City.*
- *7.5 Participate and cooperate with other agencies and jurisdictions in the development of noise abatement plans for highways.*

#### Land Use Compatibility

The *Noise and Land Use Compatibility Matrix* (Table 4.11-3) in the City of Lake Elsinore General Plan Noise section provides guidelines to evaluate the land use compatibility of transportation related noise. The compatibility criteria, shown on Figure 4.11-4, *Noise and Land Use Compatibility Matrix*, provides the City with a planning tool to gauge the compatibility of land uses relative to existing and future exterior noise levels. (Urban Crossroads, 2019, p. 20)

The *Noise and Land Use Compatibility Matrix* describes categories of compatibility and not specific noise standards. According to these categories of compatibility, the Project's proposed residential land uses are considered clearly compatible with exterior noise levels below 60 dBA CNEL and normally compatible with exterior noise levels below 70 dBA CNEL. Commercial land use is considered clearly compatible with exterior noise levels below 70 dBA CNEL and normally compatible with noise levels below 80 dBA CNEL. For

normally compatible 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. (Urban Crossroads, 2019, p. 21)

### Table 4.11-3 Operational Exterior Noise Level Standards

| Land Use | Condition | Based Exterior Noise Level Standards (dBA)[2] | | | | |
|---|---|---|---|---|---|---|
| | | $L_{50}$ (30 mins) | $L_{25}$ (15 mins) | $L_8$ (5 mins) | $L_2$ (1 min) | $L_{max}$ (Anytime) |
| Single-Family Residential | Daytime | 50 | 55 | 60 | 65 | 70 |
| | Nighttime | 40 | 45 | 50 | 55 | 60 |
| Multi-Family Residential | Daytime | 50 | 55 | 60 | 65 | 70 |
| | Nighttime | 45 | 50 | 55 | 60 | 65 |
| Public Space/ Light Comm. | Daytime | 60 | 65 | 70 | 75 | 80 |
| | Nighttime | 55 | 60 | 65 | 70 | 75 |
| General Commercial | Daytime | 65 | 70 | 75 | 80 | 85 |
| | Nighttime | 60 | 65 | 70 | 75 | 80 |
| Light Industrial | Anytime | 70 | 75 | 80 | 85 | 90 |
| Heavy Industrial | Anytime | 75 | 80 | 85 | 90 | 95 |

1. Source: City of Lake Elsinore Municipal Code, Section 17.176.060(A)(2) & Table 1.
"Daytime" = 7:00 a.m. to 10:00 p.m.; "Nighttime" = 10:00 p.m. to 7:00 a.m.
(Urban Crossroads, 2019, Table 3-1)

### Table 4.11-4 Mobile Equipment Noise Level Limits

| Type | Receiving Land Use Category | Time Period | Maximum Noise Levels (dBA $L_{max}$)[1] |
|---|---|---|---|
| I | Single-Family Residential | Daytime (7:00 a.m. - 7:00 p.m.) | 75 |
| | | Nighttime (7:00 p.m. - 7:00 a.m.) | 60 |
| II | Multi-Family Residential | Daytime (7:00 a.m. - 7:00 p.m.) | 80 |
| | | Nighttime (7:00 p.m. - 7:00 a.m.) | 65 |
| III | Semi-Residential/ Commercial | Daytime (7:00 a.m. - 7:00 p.m.) | 85 |
| | | Nighttime (7:00 p.m. - 7:00 a.m.) | 70 |

1. Maximum noise levels for repetitively scheduled and relatively long-term operation (period of 10 days or more) of stationary equipment, City of Lake Elsinore Municipal Code 17.176.080 (F).
(Urban Crossroads, 2019, Table 3-2)

## Figure 4.11-4 Noise and Land Use Compatibility Matrix

| Land Use Categories | | Day-Night Noise Level (LDN) | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Categories | Uses | ≤55 | 60 | 65 | 70 | 75 | 80≥ | |
| Residential | Single, Family, Duplex, Multiple Family | A | A | B | B | C | D | D |
| Residential | Mobile Homes | A | A | B | C | C | D | D |
| Commercial Regional District | Hotel, Motel, Transient Lodging | A | A | B | B | C | C | D |
| Commercial Regional Village, District Special | Commercial, Retail, Bank, Restaurant, Movie Theatre | A | A | A | A | B | B | C |
| Commercial Industrial Institutional | Office Building, Research and Development, Professional Offices, City Office Building | A | A | A | B | B | C | D |
| Commercial Regional Institutional Civic Center | Amphitheatre, Concert Hall<br>Auditorium, Meeting Hall | B | B | C | C | D | D | D |
| Commercial Recreation | Children's Amusement Park, Miniature Golf Course, Go-cart Track, Equestrian Center, Sports Club | A | A | A | B | B | D | D |
| Commercial General, Special Industrial Institutional | Automobile Service Station, Auto Dealership, Manufacturing, Warehousing, Wholesale, Utilities | A | A | A | A | B | B | B |
| Institutional General | Hospital, Church, Library, Schools, Classroom | A | A | B | C | C | D | D |
| Open Space | Parks | A | A | A | B | C | D | D |
| Open Space | Golf Course, Cemeteries, Nature Centers, Wildlife Reserves, Wildlife Habitat | A | A | A | A | B | C | C |
| Agriculture | Agriculture | A | A | A | A | A | A | A |

| Interpretation | |
|---|---|
| Zone A Clearly Compatible | Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction without any special noise insulation requirements. |
| Zone B Normally Compatible | New construction or development should be undertaken only after detailed analysis of the noise reduction requirements are made and needed nose insulation features in the design are determined. Conventional construction, with closed windows and fresh air supply systems or air conditioning, will normally suffice. |
| Zone C Normally Incompatible | 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 the design. |
| Zone D Clearly Incompatible | New construction or development should generally not be undertaken. |

*Source: City of Lake Elsinore General Plan, Public Safety and Welfare Element, Table 3-1.*

(Urban Crossroads, 2019, Exhibit 3-A)

### *Transportation Noise Standards*

The City of Lake Elsinore General Plan Noise section specifies the noise levels allowable for new developments. The interior and exterior noise standards shown previously Table 4.11-4 identify an exterior noise level of 60 dBA CNEL for noise-sensitive residential land uses, and no exterior noise level standards for commercial and hotel land uses. In addition, the City requires that certain commercial and institutional land uses achieve an indoor noise standard of 45 dBA CNEL with windows closed consistent with the California Building Code requirements. The City of Lake Elsinore General Plan Noise section standards are shown on Table 4.11-5, *Interior and Exterior Noise Standards*. These standards typically apply to transportation-related (mobile) noise sources, while the City's Municipal Code, as discussed below, identifies the noise level limits for stationary sources of noise. (Urban Crossroads, 2019, p. 21)

**Table 4.11-5 Interior and Exterior Noise Standards**

| Land Use Categories | | Energy Average LDN | |
|---|---|---|---|
| **Categories** | **Uses** | **Interior** | **Exterior** |
| Residential | Single Family, Duplex, Multiple Family | 45 [3, 5] | 60 |
| | Mobile Homes | – | 60 [4] |
| Commercial, Institutional | Hotel, Motel, Transient Lodging | 45 [5] | – |
| | Hospital, School's classroom | 45 | – |
| | Church, Library | 45 | – |

**Interpretation**

1. Indoor environment excluding: Bathrooms, toilets, closets, corridors.

2. Outdoor environment limited to: Private yard of single family, multi-family private patio or balcony which is served by a means of exit from inside, Mobile Home Park.

3. Noise level requirement with closed windows. Mechanical ventilating system or other means of natural ventilation shall be provided as of Chapter 12, Section 1205 of UBC.

4. Exterior noise level should be such that interior noise level will not exceed 45 CNEL.

5. As per California Administrative Code, Title 24, Part 6, Division T25, Chapter 1, Subchapter 1, Article 4, Section T25-28.

*Source: City of Lake Elsinore General Plan, Public Safety and Welfare Element, Table 3-2.*
(Urban Crossroads, 2019, Exhibit 3-B)

## *2. City of Lake Elsinore Municipal Code*

### *Operational Noise Standards*

Section 17.176.060 of the City of Lake Elsinore Municipal Code states the following: *No person shall, operate or cause to be operated, any source of sound at any location within the incorporated City or allow the creation of any noise on property owned, leased, occupied or otherwise controlled by such person which causes the noise level when measured on any other property, either incorporated or unincorporated to exceed…the maximum permissible sound levels by receiving land use.* For noise-sensitive residential properties, the

Municipal Code identifies base exterior noise level limits for the daytime (7:00 a.m. to 10:00 p.m.) hours of 50 dBA L50 and 40 dBA L50 during the nighttime (10:00 p.m. to 7:00 a.m.) hours. These standards shall apply for a cumulative period of 30 minutes in any hour ($L_{50}$), as well as the standard plus 5 dBA cannot be exceeded for a cumulative period of more than 15 minutes in any hour ($L_{25}$), or the standard plus 10 dBA for a cumulative period of more than 5 minutes in any hour (L8), or the standard plus 15 dBA for a cumulative period of more than 1 minute in any hour (L2), or the standard plus 20 dBA for any period of time (Lmax). Table 4.11-3 shows the City of Lake Elsinore noise standards by land use. (Urban Crossroads, 2019, pp. 23-24)

### *Construction Noise Standards*

The City of Lake Elsinore has set restrictions to control noise impacts associated with construction activities. Section 17.176.080(F), *Construction/Demolition*, indicates that operating or causing the operation of any tools or equipment used in construction, drilling, repair, alteration or demolition work between the weekday hours of 7:00 p.m. and 7:00 a.m., or at any time on weekends or holidays, such that the sound therefrom creates a noise disturbance across a residential or commercial real property line, except for emergency work by public service utilities or by variance issued by the City is prohibited. The Municipal code further requires construction activities to be conducted in such a manner that the maximum (Lmax) noise levels at affected residential and commercial properties will not exceed the mobile (less than 10-day duration) and stationary equipment (greater than 10-day duration) noise standards provided on Table 4.11-4 (previously presented) and Table 4.11-6, *Stationary Equipment Noise Level Limits*, respectively. (Urban Crossroads, 2019, p. 24)

**Table 4.11-6 Stationary Equipment Noise Level Limits**

| Type | Receiving Land Use Category | Time Period | Maximum Noise Levels (dBA $L_{max}$)[1] |
|---|---|---|---|
| I | Single-Family Residential | Daytime (7:00 a.m. - 7:00 p.m.) | 60 |
| | | Nighttime (7:00 p.m. - 7:00 a.m.) | 50 |
| II | Multi-Family Residential | Daytime (7:00 a.m. - 7:00 p.m.) | 65 |
| | | Nighttime (7:00 p.m. - 7:00 a.m.) | 55 |
| III | Semi-Residential/ Commercial | Daytime (7:00 a.m. - 7:00 p.m.) | 70 |
| | | Nighttime (7:00 p.m. - 7:00 a.m.) | 60 |

1. Maximum noise levels for repetitively scheduled and relatively long-term operation (period of 10 days or more) of stationary equipment, City of Lake Elsinore Municipal Code 17.176.080(F).

(Urban Crossroads, 2019, Table 3-3)

In addition to the construction noise level standards identified on Table 4.11-4 and Table 4.11-6, the City of Lake Elsinore Municipal Code establishes standards for the noise levels received at business properties. Both the mobile equipment noise level limit of 85 dBA Lmax and stationary equipment noise level limit of 75 dBA Lmax shall apply at nearby business properties during all hours on a daily basis, including Sundays and legal holidays. (Urban Crossroads, 2019, p. 25)

### *Construction Vibration Standards*

The City of Lake Elsinore Municipal Code, Section 17.176.080(G), states that operating or permitting the operation of any device that creates a vibration which is above the vibration perception threshold of any individual at or beyond the property boundary of the source if on private property or at 150 feet (46 meters) from the source if on public space or public right-of-way is prohibited. The Municipal Code defines the vibration perception threshold to be a motion velocity of 0.01 in/sec over the range of one to 100 Hz, as shown on Table 4.11-7, *Construction Vibration Standards*. (Urban Crossroads, 2019, p. 26)

**Table 4.11-7 Construction Vibration Standards**

| Jurisdiction | Root-Mean-Square (RMS) Velocity (in/sec) |
|---|---|
| City of Lake Elsinore[1] | 0.01 |

1. Source: City of Lake Elsinore Municipal Code, Section 17.176.080(G). (Urban Crossroads, 2019, Table 3-4)

## 4.11.4 BASIS FOR DETERMINING SIGNIFICANCE

The proposed Project would result in a significant impact to noise if the Project or any Project-related component would result in any of the following:

a. *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;*

b. *Generation of excessive ground borne vibration or ground borne noise levels;*

c. *For a project located within the vicinity of a private air strip 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; or*

The above-listed thresholds are derived directly from Section XIII of Appendix G to the CEQA Guidelines and address typical adverse effects to noise (OPR, 2018).

While the CEQA Guidelines and the City of Lake Elsinore General Plan Guidelines provide direction on noise compatibility and establish noise standards by land use type, they do not define the levels at which increases are considered substantial or excessive for use under Thresholds a. and b.. The significance criteria for evaluating these thresholds is discussed below. (Urban Crossroads, 2019, p. 27).

Threshold c. evaluates whether the Project would subject future Project residents or employees to substantial noise levels associated with public or private airports. The Riverside County Airport Land Use Compatibility Plan (ALUCP) indicates that residential development would be "clearly acceptable" with aircraft-related noise levels up to 55 dBA CNEL, and marginally acceptable up to 60 dBA CNEL. Commercial office uses are identified by the ALUCP as "clearly acceptable" with aircraft noise levels up to 55 dBA CNEL, and "marginally acceptable" with aircraft-related noise levels up to 60 dBA CNEL. Commercial retail uses are

considered "clearly acceptable" with aircraft-related noise levels up to 65 dBA CNEL, and "marginally acceptable" with aircraft-related noise levels up to 75 dBA CNEL. (ALUC, 2004, Table 2B)

### *A. Noise Sensitive Receivers*

Noise-level increases resulting from the Project are evaluated based on the Appendix G CEQA Guidelines described above at the closest sensitive receiver locations. Under CEQA, consideration must be given to the magnitude of the increase, the existing ambient noise levels, and the location of noise-sensitive receivers to determine if a noise increase represents a significant adverse environmental impact. This approach recognizes that there is no single noise increase that renders the noise impact significant. Unfortunately, there is no completely satisfactory way to measure the subjective effects of noise or of the corresponding human reactions of annoyance and dissatisfaction. This is primarily because of the wide variation in individual thresholds of annoyance and differing individual experiences with noise. Thus, an important way of determining a person's subjective reaction to a new noise is the comparison of it to the existing environment to which one has adapted – the so-called ambient environment. (Urban Crossroads, 2019, pp. 27-28)

In general, the more a new noise exceeds the previously existing ambient noise level, the less acceptable the new noise will typically be judged. The Federal Interagency Committee on Noise (FICON) developed guidance to be used for the assessment of project-generated increases in noise levels that consider the ambient noise level. The FICON recommendations are based on studies that relate aircraft noise levels to the percentage of persons highly annoyed by aircraft noise. Although the FICON recommendations were specifically developed to assess aircraft noise impacts, these recommendations are often used in environmental noise impact assessments involving the use of cumulative noise exposure metrics, such as the average-daily noise level (i.e., CNEL). (Urban Crossroads, 2019, p. 28)

For example, if the ambient noise environment is quiet (<60 dBA) and the new noise source greatly increases the noise levels, an impact may occur if the noise criteria may be exceeded. Therefore, for this analysis, FICON considers a readily perceptible 5 dBA or greater project-related noise level increase to comprise a significant impact when the noise criteria for a given land use is exceeded. Per FICON, in areas where the without project noise levels range from 60 to 65 dBA, a 3 dBA barely perceptible noise level increase appears to be appropriate for most people. When the without project noise levels already exceed 65 dBA, any increase in community noise louder than 1.5 dBA or greater is considered a significant impact if the noise criteria for a given land use is exceeded, since it likely contributes to an existing noise exposure exceedance. Table 4.11-8, *Significance of Noise Impacts at Noise-Sensitive Receivers*, provides a summary of the potential noise impact significance criteria, based on guidance from FICON. (Urban Crossroads, 2019, p. 28)

**Table 4.11-8 Significance of Noise Impacts at Noise-Sensitive Receivers**

| Without Project Noise Level | Potential Significant Impact |
|---|---|
| < 60 dBA | 5 dBA or more |
| 60 - 65 dBA | 3 dBA or more |
| > 65 dBA | 1.5 dBA or more |

Federal Interagency Committee on Noise (FICON), 1992.
(Urban Crossroads, 2019, Table 4-1)

### B. Non-Noise-Sensitive Receivers

The City of Lake Elsinore General Plan *Noise and Land Use Compatibility Matrix*, previously presented in Table 4.11-3, is used to establish the satisfactory noise levels of significance for non-noise-sensitive land uses in the Project study area. As previously shown on Figure 4.11-4, the normally compatible exterior noise levels for non-noise-sensitive land uses (e.g., commercial, industrial) is 70 dBA CNEL. Noise levels greater than 70 dBA CNEL are considered normally incompatible. (Urban Crossroads, 2019, p. 29)

To determine if Project-related traffic noise level increases are significant at off-site non-noise-sensitive land uses, a readily perceptible 5 dBA and barely perceptible 3 dBA criteria were used. When the without Project noise levels at the non-noise-sensitive land uses are below the normally acceptable 70 dBA CNEL compatibility criteria, a readily perceptible 5 dBA or greater noise level increase is considered a significant impact. When the without Project noise levels are greater than the normally acceptable 70 dBA CNEL land use compatibility criteria, a barely perceptible 3 dBA or greater noise level increase is considered a significant impact since the noise level criteria is already exceeded. The noise level increases used to determine significant impacts for non-noise-sensitive land uses is generally consistent with the FICON noise level increase thresholds for noise-sensitive land uses but instead rely on the City of Lake Elsinore General Plan off-site 70 dBA CNEL exterior noise level criteria. (Urban Crossroads, 2019, p. 29)

### C. Significance Criteria Summary

Table 4.11-9, *Significance Criteria Summary*, provides a summary of the significance criteria utilized herein to evaluate the Project's potential impacts due to noise. As shown in Table 4.11-9, noise impacts would be considered significant if any of the following occur as a result of the proposed Project. (Urban Crossroads, 2019, pp. 29-30)

#### Off-Site Traffic Noise

- When the noise levels at existing and future noise-sensitive land uses (e.g. residential, school, etc.):
  - are less than 60 dBA and the Project creates a readily perceptible 5 dBA or greater Project-related noise level increase; or
  - range from 60 to 65 dBA and the Project creates a barely perceptible 3 dBA or greater Project-related noise level increase; or
  - already exceed 65 dBA, and the Project creates a community noise level impact of greater than 1.5 dBA (FICON, 1992).

- When the noise levels at existing and future non-noise-sensitive land uses (e.g., commercial, industrial):
  - are less than the 70 dBA CNEL criteria and the Project creates a readily perceptible 5 dBA CNEL or greater Project related noise level increase; or
  - are greater than the 70 dBA CNEL criteria and the Project creates a barely perceptible 3 dBA CNEL or greater Project noise level increase.

## Table 4.11-9 Significance Criteria Summary

| Analysis | Receiving Land Use | Condition(s) | Significance Criteria | |
|---|---|---|---|---|
| | | | Daytime | Nighttime |
| Off-Site | Noise-Sensitive[1] | If ambient is < 60 dBA CNEL | ≥ 5 dBA CNEL Project increase | |
| | | If ambient is 60 - 65 dBA CNEL | ≥ 3 dBA CNEL Project increase | |
| | | If ambient is > 65 dBA CNEL | ≥ 1.5 dBA CNEL Project increase | |
| | Non-Noise-Sensitive[2] | If ambient is < 70 dBA CNEL | ≥ 5 dBA CNEL Project increase | |
| | | If ambient is > 70 dBA CNEL | ≥ 3 dBA CNEL Project increase | |
| On-Site[2] | Residential | Exterior Noise Level Standard | 60 dBA CNEL | |
| | | Interior Noise Level Standard | 45 dBA CNEL | |
| | Hotel | Interior Noise Level Standard | 45 dBA CNEL | |
| Operational | Varied[3] | ≥ 30 Minutes $L_{50}$ | See Table 4.11-3 for the Exterior Noise Level Standards by Land Use | |
| | | ≥ 15 Minutes $L_{25}$ | | |
| | | ≥ 5 Minutes $L_8$ | | |
| | | ≥ 1 Minute $L_2$ | | |
| | | Anytime $L_{max}$ | | |
| | Noise-Sensitive[1] | if ambient is < 60 dBA | ≥ 5 dBA Project increase | |
| | | if ambient is 60 - 65 dBA | ≥ 3 dBA Project increase | |
| | | if ambient is > 65 dBA | ≥ 1.5 dBA Project increase | |
| Construction | Noise-Sensitive | Permitted hours of 7:00 a.m. to 7:00 p.m. weekdays; with no activity allowed on weekends or holidays.[4] | | |
| | | Noise Level Threshold (<10 Days)[4] | See Table 4.11-4 | |
| | | Noise Level Threshold (>10 Days)[4] | See Table 4.11-6 | |
| | | Vibration Level Threshold[5] | 0.01 in/sec RMS | n/a |

1 Source: FICON, 1992.
2 Source: City of Lake Elsinore General Plan, Public Health and Safety Element, Section 3.7 Noise, Tables 3-1 & 3-2.
3 Source: City of Lake Elsinore Municipal Code, Chapter 17.176 Noise Control.
4 Source: City of Lake Elsinore Municipal Code, Section 17.176.080(F).
5 Source: City of Lake Elsinore Municipal Code, Section 17.176.080(G).
"Daytime" = 7:00 a.m. to 10:00 p.m.; "Nighttime" = 10:00 p.m. to 7:00 a.m.; "n/a" = No nighttime construction activity is permitted, so no nighttime construction noise level limits are identified.
(Urban Crossroads, 2019, Table 4-2)

### *On-Site Traffic Noise*

- If the on-site traffic noise levels exceed:
  - the exterior 60 dBA CNEL noise level standard for single-family residential outdoor areas of frequent human use (e.g., backyards); or
  - the interior 45 dBA CNEL noise level standard for residential and hotel uses (City of Lake Elsinore General Plan, Public Health and Safety Element, Section 3.7 Noise, Table 3-2).

### *Operational Noise*

- If Project-related operational (stationary-source) noise levels exceed the exterior noise level standard at nearby sensitive receiver locations identified on Table 4.11-3 by land use category (City of Lake Elsinore Municipal Code, Chapter 17.176 Noise Control).

- If the existing ambient noise levels at the nearby noise-sensitive receivers near the Project site:
  - are less than 60 dBA $L_{50}$ and the Project creates a readily perceptible 5 dBA $L_{50}$ or greater Project-related noise level increase; or
  - range from 60 to 65 dBA $L_{50}$ and the Project creates a barely perceptible 3 dBA $L_{50}$ or greater Project-related noise level increase; or
  - already exceed 65 dBA $L_{50}$, and the Project creates a community noise level impact of greater than 1.5 dBA $L_{50}$ (FICON, 1992).

### *Construction Noise and Vibration*

- If Project-related construction activities generate noise levels which exceed the mobile or stationary equipment noise level limits described on Table 4.11-4 and Table 4.11-6 (City of Lake Elsinore Municipal Code, Section 17.176.080(F)).

- If short-term Project generated construction vibration levels exceed the City of Lake Elsinore maximum acceptable vibration standard of 0.01 in/sec (RMS) at sensitive receiver locations (City of Lake Elsinore Municipal Code, Section 17.176.080(G)).

## 4.11.5 METHODOLOGY FOR CALCULATING PROJECT-RELATED NOISE IMPACTS

### *A. Sensitive Receptors*

Sensitive receivers are generally defined as locations where people reside or where the presence of unwanted sound could otherwise adversely affect the use of the land. Noise-sensitive land uses are generally considered to include: schools, hospitals, single-family dwellings, mobile home parks, churches, libraries, and recreation areas. Moderately noise-sensitive land uses typically include: multi-family dwellings, hotels, motels, dormitories, out-patient clinics, cemeteries, golf courses, country clubs, athletic/tennis clubs, and equestrian clubs. Land uses that are considered relatively insensitive to noise include business, commercial, and professional developments. Land uses that are typically not affected by noise include: industrial, manufacturing, utilities, agriculture, natural open space, undeveloped land, parking lots, warehousing, liquid and solid waste facilities, salvage yards, and transit terminals. (Urban Crossroads, 2019, p. 79)

Sensitive receivers near the Project site include existing residential homes and Temescal Canyon High School, as described below and depicted on Figure 4.11-5, *Receiver Locations*. Other sensitive land uses in the Project study area that are located at greater distances than those identified in the Project's NIA would experience lower noise levels than those presented in this report due to the additional attenuation from distance and the shielding of intervening structures. (Urban Crossroads, 2019, p. 79)

- R1: Located approximately 191 feet east of the Project site, R1 represents an existing residential home south of Nichols Road. A 24-hour noise level measurement was taken near this location, L4, to describe the existing ambient noise environment.

- R2: Location R2 represents existing residential homes located approximately 56 feet east of the Project site on Wood Mesa Court. A 24-hour noise level measurement was taken near this location, L4, to describe the existing ambient noise environment.

- R3: Location R3 represents the existing residential home located southeast across El Toro Road at roughly 85 feet. A 24-hour noise level measurement was taken near this location, L5, to describe the existing ambient noise environment.

- R4: Location R4 represents the closest existing Temescal Canyon High School building to the Project site located roughly 76 feet south. A 24-hour noise level measurement was taken near this location, L6, to describe the existing ambient noise environment.

- R5: Location R5 represents the existing baseball field south of the Project site within Temescal Canyon High School at roughly 122 feet. A 24-hour noise level measurement was taken near this location, L6, to describe the existing ambient noise environment.

- R6: Location R6 represents an existing baseball field south of the Project site within Temescal Canyon High School at roughly 60 feet. A 24-hour noise level measurement was taken near this location, L6, to describe the existing ambient noise environment.

### *B. Federal Highway Administration Traffic Noise Prediction Model*

The estimated roadway noise impacts from vehicular traffic were calculated using a computer program that replicates the Federal Highway Administration (FHWA) Traffic Noise Prediction Model- FHWA-RD-77-108. The FHWA Model arrives at a predicted noise level through a series of adjustments to the Reference Energy Mean Emission Level (REMEL). In California the national REMELs are substituted with the California Vehicle Noise (Calveno) Emission Levels. Adjustments are then made to the REMEL to account for: the roadway classification (e.g., collector, secondary, major, or arterial); the roadway active width (i.e., the distance between the center of the outermost travel lanes on each side of the roadway); the total average daily traffic (ADT); the travel speed; the percentages of automobiles, medium trucks, and heavy trucks in the traffic volume; the roadway grade; the angle of view (e.g., whether the roadway view is blocked); the site conditions ("hard" or "soft" relates to the absorption of the ground, pavement, or landscaping); and the percentage of total ADT which flows each hour throughout a 24-hour period. (Urban Crossroads, 2019, p. 37)

#### *1. Off-Site Traffic Noise Prediction Model Inputs*

Table 6-1 of the Project's NIA (*Technical Appendix J*) presents the roadway parameters used to assess the Project's off-site transportation noise impacts. NIA Table 6-1 identifies the 21 study area roadway segments, the distance from the centerline to adjacent land use based on the functional roadway classifications per the




Source(s): Urban Crossroads (08-28-2018)

Figure 4.11-5

NOT TO SCALE

**RECEIVER LOCATIONS**

City of Lake Elsinore General Plan Community Form Element, and the posted vehicle speeds. For this analysis, soft site conditions are used to analyze the traffic noise impacts within the Project study area. Soft site conditions account for the sound propagation loss over natural surfaces such as normal earth and ground vegetation. Research conducted by Caltrans has shown that the use of soft site conditions is appropriate for the application of the FHWA traffic noise prediction model used in this noise study. (Urban Crossroads, 2019, p. 37)

The average daily traffic volumes used in the NIA are presented on Tables 6-2 to 6-4 of the Project's NIA (*Technical Appendix J*), and are provided by the Project's Traffic Impact Analysis ("TIA," EIR *Technical Appendix L*) for each of the scenarios listed in Subsection 6.1.1 of the NIA (Urban Crossroads, 2019, pp. 37-38):

Table 6-5 of the Project's NIA (*Technical Appendix J*) presents the time of day vehicle splits and Table 6-6 of the NIA presents the traffic flow distributions (vehicle mix) used for the analysis. The vehicle mix provides the hourly distribution percentages of automobile, medium trucks, and heavy trucks for input into the FHWA noise prediction model. (Urban Crossroads, 2019, p. 41)

### *2. On-Site Traffic Noise Prediction Model Inputs*

The on-site roadway parameters including the average daily traffic (ADT) volumes used for the analysis are presented on Table 6-1 of the Project's NIA (*Technical Appendix J*). Based on the City of Lake Elsinore General Plan Community Form Element, Nichols Road is classified as a 6-lane Urban Arterial. To predict the future on-site noise environment at the Project site, average daily volumes were obtained from the County of Riverside Office of Industrial Hygiene requirements for noise studies. Future traffic volumes for I-15 were based on an assumed 10-percent growth over 2016 conditions found in the Caltrans Traffic Data Branch Annual Average Daily Truck Traffic on the California Highways System. The traffic volumes shown on Table 6-1 of the NIA reflect future long-range traffic conditions needed to assess the future on-site traffic noise environment and to identify the appropriate noise mitigation measures, if any, that address the worst-case future conditions. Soft site conditions were used to analyze the traffic noise impacts within the Project study area which account for the sound propagation loss over natural surfaces such as normal earth and ground vegetation. Research conducted by Caltrans has shown that the use of soft site conditions is appropriate for the application of the FHWA traffic noise prediction model used in the Project's NIA. (Urban Crossroads, 2019, p. 42)

Table 6-5 of the Project's NIA (*Technical Appendix J*) presents the time of day vehicle splits by vehicle type, and NIA Table 6-6 presents the total traffic flow distributions (vehicle mixes) used for the analysis. The vehicle mix provides the hourly distribution percentages of automobile, medium trucks, and heavy trucks for input into the FHWA Model based on roadway types. To predict the future noise environment at each building within the Project site, coordinate information was collected to identify the noise transmission path between the noise source and receiver. The coordinate information is based on the Project site plan showing the plotting of each Project building in relationship to I-15 and Nichols Road, as shown on Exhibit 1-B of the Project's NIA. (Urban Crossroads, 2019, p. 43)

### C. Construction Noise Methodology

Noise generated by the Project construction equipment will include a combination of trucks, power tools, concrete mixers, and portable generators that when combined can reach high levels. The number and mix of construction equipment are expected to occur in the following stages: (Urban Crossroads, 2019, p. 93)

- Site Preparation
- Mass & Fine Grading
- Building Construction
- Paving
- Architectural Coating

The construction noise analysis provided in the Project's NIA (*Technical Appendix J*) was prepared using reference noise level measurements taken by Urban Crossroads, Inc. to describe the typical construction activity noise levels for each stage of Project construction. The construction reference noise level measurements represent a list of typical construction activity noise levels. Noise levels generated by heavy construction equipment can range from approximately 68 dBA to in excess of 80 dBA when measured at 50 feet. Hard site conditions are used in the construction noise analysis which result in noise levels that attenuate (or decrease) at a rate of 6 dBA for each doubling of distance from a point source (i.e. construction equipment). For example, a noise level of 80 dBA measured at 50 feet from the noise source to the receiver would be reduced to 74 dBA at 100 feet from the source to the receiver, and would be further reduced to 68 dBA at 200 feet from the source to the receiver. The construction stages used in this analysis are consistent with the data used to support the construction emissions in the Project's Air Quality Impact Analysis ("AQIA," EIR *Technical Appendix B*). (Urban Crossroads, 2019, p. 93)

To describe the Project construction noise levels, measurements were collected by Urban Crossroads for similar activities at several construction sites. Table 4.11-10, *Construction Reference Noise Levels*, provides a summary of the construction reference noise level measurements. Since the reference noise levels were collected at varying distances, all construction noise level measurements presented on Table 4.11-10 have been adjusted to describe a common reference distance of 50 feet. (Urban Crossroads, 2019, p. 93)

### D. Construction Vibration Assessment Methodology

The construction vibration analysis focuses on the potential ground-borne vibration associated with vehicular traffic and construction activities. Ground-borne vibration levels from automobile traffic are generally overshadowed by vibration generated by heavy trucks that roll over the same uneven roadway surfaces. However, due to the rapid drop-off rate of ground-borne vibration and the short duration of the associated events, vehicular traffic-induced ground-borne vibration is rarely perceptible beyond the roadway right-of-way, and rarely results in vibration levels that cause damage to buildings in the vicinity. (Urban Crossroads, 2019, p. 43)

## Table 4.11-10 Construction Reference Noise Levels

| ID | Noise Source | Reference Distance From Source (Feet) | Reference Noise Levels @ Reference Distance (dBA $L_{max}$) | Reference Noise Levels @ 50 Feet (dBA $L_{max}$)[6] |
|---|---|---|---|---|
| 1 | Truck Pass-Bys & Dozer Activity[1] | 30' | 68.1 | 63.7 |
| 2 | Dozer Activity[1] | 30' | 76.4 | 72.0 |
| 3 | Construction Vehicle Maintenance Activities[2] | 30' | 74.8 | 70.4 |
| 4 | Foundation Trenching[2] | 30' | 74.9 | 70.5 |
| 5 | Rough Grading Activities[2] | 30' | 84.8 | 80.4 |
| 6 | Framing[3] | 30' | 76.7 | 72.3 |
| 7 | Two Scrapers Pass-By[4] | 30' | 86.9 | 82.5 |
| 8 | Concrete Mixer Truck Movements[5] | 50' | 73.1 | 73.1 |
| 9 | Concrete Paver Activities[5] | 30' | 75.7 | 71.3 |
| 10 | Concrete Mixer Pour & Paving Activities[5] | 30' | 76.3 | 71.9 |
| 11 | Concrete Mixer Backup Alarms & Air Brakes[5] | 50' | 78.8 | 78.8 |
| 12 | Concrete Mixer Pour Activities[5] | 50' | 79.2 | 79.2 |

[1] As measured by Urban Crossroads, Inc. on 10/14/15 at a business park construction site located at the northwest corner of Barranca Parkway and Alton Parkway in the City of Irvine.
[2] As measured by Urban Crossroads, Inc. on 10/20/15 at a construction site located in Rancho Mission Viejo.
[3] As measured by Urban Crossroads, Inc. on 10/20/15 at a residential construction site located in Rancho Mission Viejo.
[4] As measured by Urban Crossroads, Inc. on 10/30/15 during grading operations within an industrial construction site located in the City of Ontario.
[5] Reference noise level measurements were collected from a nighttime concrete pour at an industrial construction site, located at 27334 San Bernardino Avenue in the City of Redlands, between 1:00 a.m. to 2:00 a.m. on 7/1/15.
[6] Reference noise levels are calculated at 50 feet using a drop off rate of 6 dBA per doubling of distance (point source).

(Urban Crossroads, 2019, Table 11-1)

While vehicular traffic is rarely perceptible, construction has the potential to result in varying degrees of temporary ground vibration, depending on the specific construction activities and equipment used. Ground vibration levels associated with various types of construction equipment are summarized on Table 4.11-11, *Vibration Source Levels for Construction* Equipment. Based on the representative vibration levels presented for various construction equipment types, it is possible to estimate the human response (annoyance) using the following vibration assessment methods defined by the FTA. To describe the human response (annoyance) associated with vibration impacts the FTA provides the following equation: $PPV_{equip} = PPV_{ref} \times (25/D)^{1.5}$. (Urban Crossroads, 2019, p. 43)

**Table 4.11-11 Vibration Source Levels for Construction Equipment**

| Equipment | PPV (in/sec) at 25 feet |
|---|---|
| Small bulldozer | 0.003 |
| Jackhammer | 0.035 |
| Loaded Trucks | 0.076 |
| Large bulldozer | 0.089 |

Source: Federal Transit Administration, Transit Noise and Vibration Impact Assessment, May 2006.
(Urban Crossroads, 2019, Table 6-8)

## 4.11.6 IMPACT ANALYSIS

***Threshold a.:*** ***Would the Project result in the generation of a substantial temporary or permanent increase in ambient noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?***

Implementation of the proposed Project has the potential to result in significant noise level impacts associated with Project construction and long-term operation that could exceed the City's noise standards. Each is discussed below.

### *A. Construction Noise Analysis*

Tables 11-2 to 11-6 of the Project's NIA (*Technical Appendix J*) show the Project construction stages and the reference construction noise levels used for each stage. Table 4.11-12, *Unmitigated Construction Equipment Noise Level Summary*, provides a summary of the noise levels from each stage of construction at each of the sensitive receiver locations. Based on the reference construction noise levels, the Project-related construction noise levels when the highest reference noise level is operating at a single point nearest the sensitive receiver location would range from 59.8 to 80.1 dBA Lmax, as shown on Table 4.11-12.

**Table 4.11-12 Unmitigated Construction Equipment Noise Level Summary**

| Receiver Location[1] | Construction Stage Hourly Noise Level (dBA Lmax) | | | | | |
|---|---|---|---|---|---|---|
| | Site Preparation | Mass & Fine Grading | Building Construction | Paving | Architectural Coating | Peak Activity[2] |
| R1 | 59.8 | 70.3 | 60.1 | 67.0 | 60.1 | 70.3 |
| R2 | 69.6 | 80.1 | 69.9 | 76.8 | 69.9 | 80.1 |
| R3 | 69.0 | 79.5 | 69.3 | 76.3 | 69.3 | 79.5 |
| R4 | 67.2 | 77.7 | 67.5 | 74.4 | 67.5 | 77.7 |
| R5 | 63.5 | 74.0 | 63.8 | 70.8 | 63.8 | 74.0 |
| R6 | 69.0 | 79.5 | 69.3 | 76.3 | 69.3 | 79.5 |

1. Noise receiver locations are shown on Figure 4.11-6, *Construction Activity and Receiver Locations.*
2. Estimated construction noise levels during peak operating conditions.
(Urban Crossroads, 2019, Table 11-7)

The construction noise analysis shows that the highest construction noise levels would occur when construction activities take place at the closest point from primary Project construction activity to each of the nearby receiver locations. As shown on Table 4.11-12, the unmitigated construction noise levels are expected to range from 59.8 to 80.1 dBA Lmax at the receiver locations. To evaluate whether the Project would generate potentially significant short-term noise levels at offsite sensitive receiver locations the City of Lake Elsinore stationary construction equipment noise level standard of 60 dBA Lmax is used as the acceptable construction noise threshold at the nearby sensitive receiver locations since Project construction would occur for greater than 10 consecutive days. (Urban Crossroads, 2019, p. 100)

Table 4.11-13, *Unmitigated Construction Equipment Noise Level Compliance*, shows the highest construction noise levels at the potentially impacted receiver locations are expected to approach 80.1 dBA Lmax and would exceed the City of Lake Elsinore stationary construction equipment noise level standards for residential and semi-residential (school) uses during temporary Project construction activities at receiver locations R1 to R6 (refer to Figure 4.11-6, *Construction Activity and Receiver Locations*). Project-related noise impacts due to unmitigated Project construction noise levels affecting nearby sensitive receptors therefore represent a potentially significant impact prior to mitigation at receiver locations R1 to R6. (Urban Crossroads, 2019, p. 101)

### *B. Operational Noise Analysis*

Long-term operation of the proposed Project has the potential to cause or contribute to significant traffic-related impacts affecting nearby sensitive receptors. Future residential and commercial structures on site also may be exposed to interior and/or exterior noise levels that exceed the City's noise standards. Additionally, operation of the proposed Project, and in particular the proposed commercial retail uses, has the potential to expose nearby sensitive receptors to noise levels that exceed the City's noise standards and/or result in a substantial increase in noise levels affecting sensitive receptors as compared to ambient noise levels. Each is discussed below.

#### *1. Off-Site Transportation Noise Impacts*

To assess the off-site transportation CNEL noise level impacts associated with development of the proposed Project, noise contours were developed based on the Project's TIA (*Technical Appendix L*). Noise contour boundaries represent the equal levels of noise exposure and are measured in CNEL from the center of the roadway. Noise contours were developed for each of the traffic study scenarios listed above in subsection 4.11.5.B.1. (Urban Crossroads, 2019, p. 45)

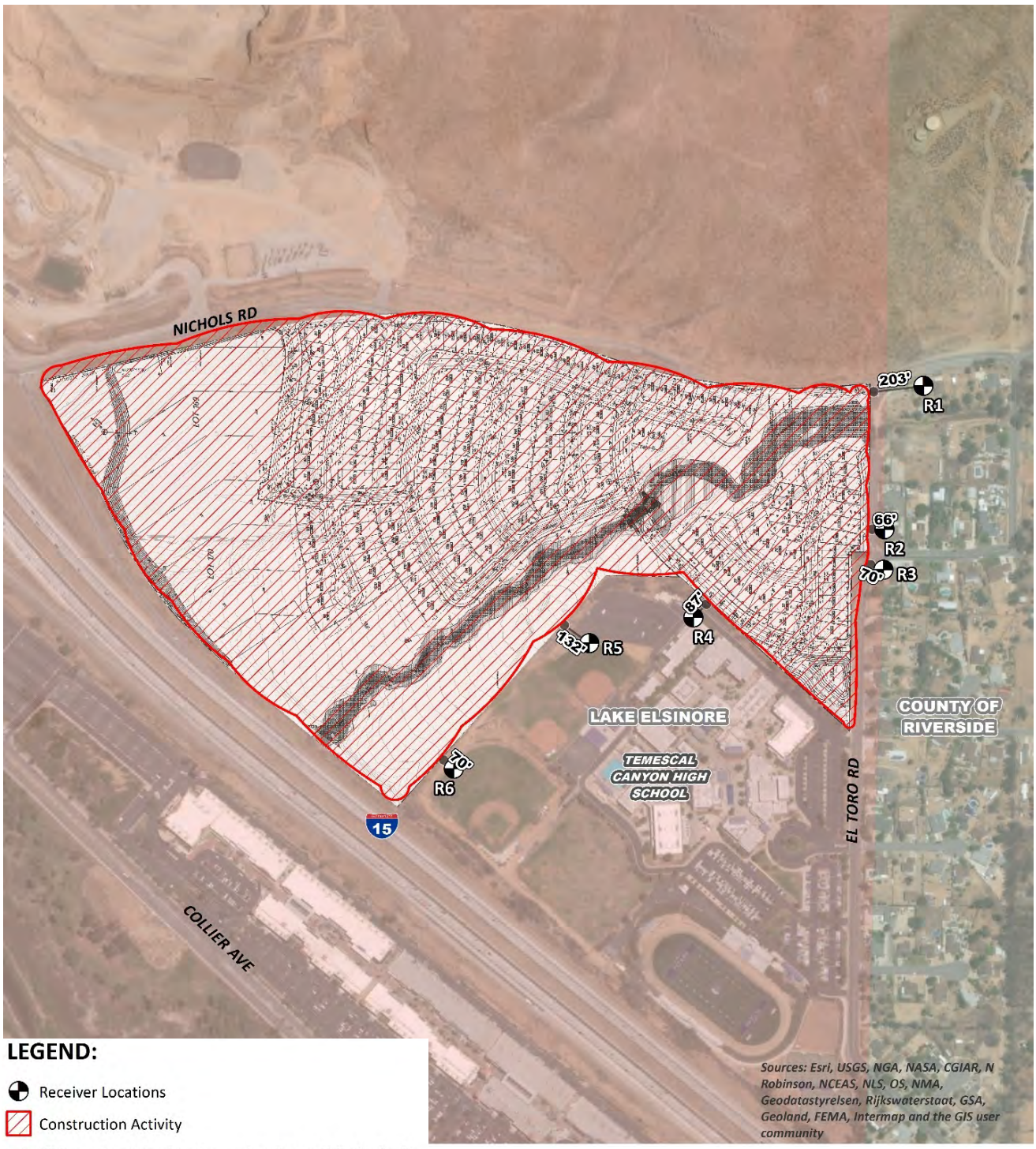
#### ❑ Traffic Noise Contours

Noise contours were used to assess the Project's incremental traffic-related noise impacts at land uses adjacent to roadways conveying Project traffic. The noise contours represent the distance to noise levels of a constant value and are measured from the center of the roadway for the 70, 65, and 60 dBA noise levels. The noise contours do not consider the effect of any existing noise barriers or topography that may attenuate ambient noise levels. In addition, because the noise contours reflect modeling of vehicular noise on area roadways,

## Table 4.11-13 Unmitigated Construction Equipment Noise Level Compliance

| Receiver Location[1] | Land Use Category | Peak Construction Activity Noise Levels[2] | Threshold[3] | Threshold Exceeded?[4] |
|---|---|---|---|---|
| R1 | Single-Family Residential | 70.3 | 60 | Yes |
| R2 | Single-Family Residential | 80.1 | 60 | Yes |
| R3 | Single-Family Residential | 79.5 | 60 | Yes |
| R4 | Semi-Residential/ Commercial | 77.7 | 70 | Yes |
| R5 | Semi-Residential/ Commercial | 74.0 | 70 | Yes |
| R5 | Semi-Residential/ Commercial | 79.5 | 70 | Yes |

1. Noise receiver locations are shown on Figure 4.11-6.
2. Estimated construction noise levels during peak operating conditions, as shown on Table 4.11-12.
3. Construction noise standards as shown on Table 4.11-6 for construction lasting greater than 10 days.
4. Do the estimated Project construction noise levels meet the construction noise level thresholds?
(Urban Crossroads, 2019, Table 11-8)




Source(s): Urban Crossroads (08-28-2018)

Figure 4.11-6

NOT TO SCALE

**CONSTRUCTION ACTIVITY AND RECEIVER LOCATIONS**

they appropriately do not reflect noise contributions from the surrounding stationary noise sources within the Project study area. Tables 7-1 through 7-16 of the Project's NIA (*Technical Appendix J*) present a summary of the exterior traffic noise levels, without barrier attenuation, for the study area roadway segments analyzed from the without Project to the with Project conditions in each traffic scenarios. Appendix 7.1 to the Project's NIA includes a summary of the traffic noise level contours for each of the 16 traffic scenarios. (Urban Crossroads, 2019, pp. 45-46)

### ❑ Existing Condition Project Traffic Noise Levels

Table 7-1 of the Project's NIA (*Technical Appendix J*) presents the Existing without Project conditions CNEL noise levels. As shown, the exterior noise levels are shown to range from 49.9 to 74.7 dBA CNEL, without accounting for any noise attenuation features such as noise barriers or topography. (Urban Crossroads, 2019, p. 62)

#### *Existing Plus Project Phase 1 Traffic Noise Levels*

Table 7-2 of the Project's NIA (*Technical Appendix J*) shows the Existing with Phase 1 Project conditions would range from 49.9 to 74.7 dBA CNEL. As shown on Table 4.11-14, *Existing Plus Project Phase 1-Related Traffic Noise Impacts*, the Project would generate a noise level increase of up to 0.1 dBA CNEL on the study area roadway segments. Based on the significance criteria in subsection 4.11.4, the Project-related noise level increases are considered less than significant under Existing with Phase 1 conditions at the land uses adjacent to roadways conveying Project traffic. (Urban Crossroads, 2019, p. 62)

#### *Existing Plus Project Phase 2 Traffic Noise Levels*

Table 7-3 of the Project's NIA (*Technical Appendix J*) shows the Existing with Phase 2 Project conditions would range from 49.9 to 74.7 dBA CNEL. As shown on Table 4.11-15, *Existing Plus Project Phase 2-Related Traffic Noise Impacts*, the Project would generate a noise level increase of up to 0.2 dBA CNEL on the study area roadway segments. Based on the significance criteria in subsection 4.11.4, the Project-related noise level increases are considered less than significant under Existing with Phase 2 conditions at the land uses adjacent to roadways conveying Project traffic. (Urban Crossroads, 2019, p. 62)

#### *Existing Plus Project Buildout Traffic Noise Levels*

Table 7-4 of the Project's NIA (*Technical Appendix J*) shows the Existing with Project Buildout conditions would range from 52.9 to 74.7 dBA CNEL. As shown on Table 4.11-16, *Existing Plus Project Buildout-Related Traffic Noise Impacts*, the Project would generate a noise level increase of up to 3.0 dBA CNEL on the study area roadway segments. Based on the significance criteria in subsection 4.11.4, the Project-related noise level increases are considered less than significant under Existing with Project Buildout conditions at the land uses adjacent to roadways conveying Project traffic. (Urban Crossroads, 2019, p. 62)

## Table 4.11-14 Existing Plus Project Phase 1-Related Traffic Noise Impacts

| ID | Road | Segment | CNEL at Adjacent Land Use (dBA)[2] | | | Noise-Sensitive? | Threshold Exceeded?[3] |
|---|---|---|---|---|---|---|---|
| | | | No Project | With Project | Project Addition | | |
| 1 | Lake St. | n/o Nichols Rd. | 69.3 | 69.4 | 0.1 | Yes | No |
| 2 | Lake St. | s/o Nichols Rd. | 70.4 | 70.4 | 0.0 | Yes | No |
| 3 | Lake St. | s/o Alberhill Ranch Rd. | 70.3 | 70.3 | 0.0 | Yes | No |
| 4 | Alberhill Ranch Rd. | s/o Nichols Rd. | 58.2 | 58.2 | 0.0 | Yes | No |
| 5 | Strickland Av. | s/o Riverside Dr. | 49.9 | 49.9 | 0.0 | Yes | No |
| 6 | Collier Av. | s/o Nichols Rd. | 67.0 | 67.0 | 0.0 | No | No |
| 7 | Collier Av. | s/o Riverside Dr. | 70.3 | 70.3 | 0.0 | Yes | No |
| 8 | Collier Av. | s/o Central Av. | 67.5 | 67.5 | 0.0 | No | No |
| 9 | El Toro Rd. | s/o Tereticornis Av. | 60.1 | 60.1 | 0.0 | Yes | No |
| 10 | Dexter Av. | n/o Central Av. | 71.3 | 71.3 | 0.0 | No | No |
| 11 | Nichols Rd. | e/o Lake St. | 64.8 | 64.8 | 0.0 | Yes | No |
| 12 | Nichols Rd. | e/o Alberhill Ranch Rd. | 65.8 | 65.8 | 0.0 | Yes | No |
| 13 | Nichols Rd. | w/o Collier Av. | 65.9 | 65.9 | 0.0 | Yes | No |
| 14 | Tereticornis Av. | e/o El Toro Rd. | 55.1 | 55.1 | 0.0 | Yes | No |
| 15 | Riverside Dr. | w/o Lakeshore Dr. | 67.9 | 67.9 | 0.0 | No | No |
| 16 | Riverside Dr. | e/o Lakeshore Dr. | 68.7 | 68.7 | 0.0 | No | No |
| 17 | Riverside Dr. | e/o Strickland Av. | 68.6 | 68.6 | 0.0 | Yes | No |
| 18 | Riverside Dr. | w/o Collier Av. | 68.6 | 68.6 | 0.0 | No | No |
| 19 | Central Av. | w/o Collier Av. | 62.8 | 62.8 | 0.0 | No | No |
| 20 | Central Av. | e/o Dexter Av. | 74.6 | 74.6 | 0.0 | No | No |
| 21 | Central Av. | e/o Cambern Av. | 74.7 | 74.7 | 0.0 | Yes | No |

1. The CNEL is calculated at the boundary of the right-of-way of each roadway and the property line of the nearest adjacent land use.
2. Significance Criteria (subsection 4.11.4).

(Urban Crossroads, 2019, Table 7-17)

## Table 4.11-15 Existing Plus Project Phase 2-Related Traffic Noise Impacts

| ID | Road | Segment | CNEL at Adjacent Land Use (dBA)[2] | | | Noise-Sensitive? | Threshold Exceeded?[3] |
|---|---|---|---|---|---|---|---|
| | | | No Project | With Project | Project Addition | | |
| 1 | Lake St. | n/o Nichols Rd. | 69.3 | 69.4 | 0.1 | Yes | No |
| 2 | Lake St. | s/o Nichols Rd. | 70.4 | 70.4 | 0.0 | Yes | No |
| 3 | Lake St. | s/o Alberhill Ranch Rd. | 70.3 | 70.3 | 0.0 | Yes | No |
| 4 | Alberhill Ranch Rd. | s/o Nichols Rd. | 58.2 | 58.2 | 0.0 | Yes | No |
| 5 | Strickland Av. | s/o Riverside Dr. | 49.9 | 49.9 | 0.0 | Yes | No |
| 6 | Collier Av. | s/o Nichols Rd. | 67.0 | 67.2 | 0.2 | No | No |
| 7 | Collier Av. | s/o Riverside Dr. | 70.3 | 70.4 | 0.1 | Yes | No |
| 8 | Collier Av. | s/o Central Av. | 67.5 | 67.5 | 0.0 | No | No |
| 9 | El Toro Rd. | s/o Tereticornis Av. | 60.1 | 60.3 | 0.2 | Yes | No |
| 10 | Dexter Av. | n/o Central Av. | 71.3 | 71.4 | 0.1 | No | No |
| 11 | Nichols Rd. | e/o Lake St. | 64.8 | 64.9 | 0.1 | Yes | No |
| 12 | Nichols Rd. | e/o Alberhill Ranch Rd. | 65.8 | 65.9 | 0.1 | Yes | No |
| 13 | Nichols Rd. | w/o Collier Av. | 65.9 | 66.0 | 0.1 | Yes | No |
| 14 | Tereticornis Av. | e/o El Toro Rd. | 55.1 | 55.1 | 0.0 | Yes | No |
| 15 | Riverside Dr. | w/o Lakeshore Dr. | 67.9 | 67.9 | 0.0 | No | No |
| 16 | Riverside Dr. | e/o Lakeshore Dr. | 68.7 | 68.8 | 0.1 | No | No |
| 17 | Riverside Dr. | e/o Strickland Av. | 68.6 | 68.6 | 0.0 | Yes | No |
| 18 | Riverside Dr. | w/o Collier Av. | 68.6 | 68.6 | 0.0 | No | No |
| 19 | Central Av. | w/o Collier Av. | 62.8 | 62.9 | 0.1 | No | No |
| 20 | Central Av. | e/o Dexter Av. | 74.6 | 74.6 | 0.0 | No | No |
| 21 | Central Av. | e/o Cambern Av. | 74.7 | 74.7 | 0.0 | Yes | No |

1. The CNEL is calculated at the boundary of the right-of-way of each roadway and the property line of the nearest adjacent land use.
2. Significance Criteria (subsection 4.11.4).

(Urban Crossroads, 2019, Table 7-18)

**Table 4.11-16 Existing Plus Project Buildout-Related Traffic Noise Impacts**

| ID | Road | Segment | CNEL at Adjacent Land Use (dBA)[2] | | | Noise-Sensitive? | Threshold Exceeded?[3] |
|---|---|---|---|---|---|---|---|
| | | | No Project | With Project | Project Addition | | |
| 1 | Lake St. | n/o Nichols Rd. | 69.3 | 69.4 | 0.1 | Yes | No |
| 2 | Lake St. | s/o Nichols Rd. | 70.4 | 70.5 | 0.1 | Yes | No |
| 3 | Lake St. | s/o Alberhill Ranch Rd. | 70.3 | 70.4 | 0.1 | Yes | No |
| 4 | Alberhill Ranch Rd. | s/o Nichols Rd. | 58.2 | 58.7 | 0.5 | Yes | No |
| 5 | Strickland Av. | s/o Riverside Dr. | 49.9 | 52.9 | 3.0 | Yes | No |
| 6 | Collier Av. | s/o Nichols Rd. | 67.0 | 67.8 | 0.8 | No | No |
| 7 | Collier Av. | s/o Riverside Dr. | 70.3 | 70.5 | 0.2 | Yes | No |
| 8 | Collier Av. | s/o Central Av. | 67.5 | 67.6 | 0.1 | No | No |
| 9 | El Toro Rd. | s/o Tereticornis Av. | 60.1 | 61.4 | 1.3 | Yes | No |
| 10 | Dexter Av. | n/o Central Av. | 71.3 | 71.5 | 0.2 | No | No |
| 11 | Nichols Rd. | e/o Lake St. | 64.8 | 65.5 | 0.7 | Yes | No |
| 12 | Nichols Rd. | e/o Alberhill Ranch Rd. | 65.8 | 66.4 | 0.6 | Yes | No |
| 13 | Nichols Rd. | w/o Collier Av. | 65.9 | 66.6 | 0.7 | Yes | No |
| 14 | Tereticornis Av. | e/o El Toro Rd. | 55.1 | 55.8 | 0.7 | Yes | No |
| 15 | Riverside Dr. | w/o Lakeshore Dr. | 67.9 | 68.0 | 0.1 | No | No |
| 16 | Riverside Dr. | e/o Lakeshore Dr. | 68.7 | 68.8 | 0.1 | No | No |
| 17 | Riverside Dr. | e/o Strickland Av. | 68.6 | 68.8 | 0.2 | Yes | No |
| 18 | Riverside Dr. | w/o Collier Av. | 68.6 | 68.8 | 0.2 | No | No |
| 19 | Central Av. | w/o Collier Av. | 62.8 | 63.0 | 0.2 | No | No |
| 20 | Central Av. | e/o Dexter Av. | 74.6 | 74.7 | 0.1 | No | No |
| 21 | Central Av. | e/o Cambern Av. | 74.7 | 74.7 | 0.0 | Yes | No |

1. The CNEL is calculated at the boundary of the right-of-way of each roadway and the property line of the nearest adjacent land use.
2. Significance Criteria (subsection 4.11.4).

(Urban Crossroads, 2019, Table 7-19)

## ❑ Existing Plus Ambient Condition Project Traffic Noise Levels

### *EA 2020 With Phase 1 Traffic Noise Levels*

Table 7-5 of the Project's NIA (*Technical Appendix J*) presents the EA 2020 without Project conditions CNEL noise levels, which are expected to range from 49.9 to 74.8 dBA CNEL, without accounting for any noise attenuation features such as noise barriers or topography. Table 7-6 of the NIA shows the EA 2020 with Phase 1 Project conditions would range from 49.9 to 74.8 dBA CNEL. As shown on Table 4.11-17, *EA 2020 Off-Site Phase 1-Related Traffic Noise Impacts*, the Project would generate a noise level increase of up to 0.4 dBA CNEL on the study area roadway segments. Based on the significance criteria in subsection 4.11.4, the Project-

related noise level increases are considered less than significant under EA 2020 with Phase 1 conditions at the land uses adjacent to roadways conveying Project traffic. (Urban Crossroads, 2019, p. 66)

**Table 4.11-17 EA 2020 Off-Site Phase 1-Related Traffic Noise Impacts**

| ID | Road | Segment | CNEL at Adjacent Land Use (dBA)[2] | | | Noise-Sensitive? | Threshold Exceeded?[3] |
|---|---|---|---|---|---|---|---|
| | | | No Project | With Project | Project Addition | | |
| 1 | Lake St. | n/o Nichols Rd. | 69.5 | 69.5 | 0.0 | Yes | No |
| 2 | Lake St. | s/o Nichols Rd. | 70.6 | 70.6 | 0.0 | Yes | No |
| 3 | Lake St. | s/o Alberhill Ranch Rd. | 70.4 | 70.4 | 0.0 | Yes | No |
| 4 | Alberhill Ranch Rd. | s/o Nichols Rd. | 58.5 | 58.5 | 0.0 | Yes | No |
| 5 | Strickland Av. | s/o Riverside Dr. | 49.9 | 49.9 | 0.0 | Yes | No |
| 6 | Collier Av. | s/o Nichols Rd. | 67.2 | 67.2 | 0.0 | No | No |
| 7 | Collier Av. | s/o Riverside Dr. | 70.5 | 70.5 | 0.0 | Yes | No |
| 8 | Collier Av. | s/o Central Av. | 67.6 | 67.6 | 0.0 | No | No |
| 9 | El Toro Rd. | s/o Tereticornis Av. | 60.2 | 60.3 | 0.1 | Yes | No |
| 10 | Dexter Av. | n/o Central Av. | 71.5 | 71.5 | 0.0 | No | No |
| 11 | Nichols Rd. | e/o Lake St. | 65.0 | 65.0 | 0.0 | Yes | No |
| 12 | Nichols Rd. | e/o Alberhill Ranch Rd. | 66.0 | 66.0 | 0.0 | Yes | No |
| 13 | Nichols Rd. | w/o Collier Av. | 66.1 | 66.1 | 0.0 | Yes | No |
| 14 | Tereticornis Av. | e/o El Toro Rd. | 55.1 | 55.5 | 0.4 | Yes | No |
| 15 | Riverside Dr. | w/o Lakeshore Dr. | 68.1 | 68.1 | 0.0 | No | No |
| 16 | Riverside Dr. | e/o Lakeshore Dr. | 68.9 | 68.9 | 0.0 | No | No |
| 17 | Riverside Dr. | e/o Strickland Av. | 68.7 | 68.8 | 0.1 | Yes | No |
| 18 | Riverside Dr. | w/o Collier Av. | 68.7 | 68.8 | 0.1 | No | No |
| 19 | Central Av. | w/o Collier Av. | 63.0 | 63.0 | 0.0 | No | No |
| 20 | Central Av. | e/o Dexter Av. | 74.8 | 74.8 | 0.0 | No | No |
| 21 | Central Av. | e/o Cambern Av. | 74.8 | 74.8 | 0.0 | Yes | No |

1. The CNEL is calculated at the boundary of the right-of-way of each roadway and the property line of the nearest adjacent land use.
2. Significance Criteria (subsection 4.11.4).

(Urban Crossroads, 2019, Table 7-20)

### *EA 2021 With Phase 2 Traffic Noise Levels*

Table 7-7 of the Project's NIA (*Technical Appendix J*) presents the EA 2021 without Project conditions CNEL noise levels which are expected to range from 49.9 to 74.9 dBA CNEL, without accounting for any noise attenuation features such as noise barriers or topography. Table 7-8 of the Project's NIA shows the EA 2021 with Phase 2 Project conditions would range from 49.9 to 74.9 dBA CNEL. As shown on Table 4.11-18, *EA 2021 Off-Site Phase 2-Related Traffic Noise Impacts*, the Project would generate a noise level increase of up

to 0.4 dBA CNEL on the study area roadway segments. Based on the significance criteria in subsection 4.11.4, the Project-related noise level increases are considered less than significant under EA 2021 with Phase 2 conditions at the land uses adjacent to roadways conveying Project traffic. (Urban Crossroads, 2019, p. 66)

**Table 4.11-18 EA 2021 Off-Site Phase 2-Related Traffic Noise Impacts**

| ID | Road | Segment | CNEL at Adjacent Land Use (dBA)[2] | | | Noise-Sensitive? | Threshold Exceeded?[3] |
|---|---|---|---|---|---|---|---|
| | | | No Project | With Project | Project Addition | | |
| 1 | Lake St. | n/o Nichols Rd. | 69.6 | 69.6 | 0.0 | Yes | No |
| 2 | Lake St. | s/o Nichols Rd. | 70.6 | 70.7 | 0.1 | Yes | No |
| 3 | Lake St. | s/o Alberhill Ranch Rd. | 70.5 | 70.6 | 0.1 | Yes | No |
| 4 | Alberhill Ranch Rd. | s/o Nichols Rd. | 58.5 | 58.5 | 0.0 | Yes | No |
| 5 | Strickland Av. | s/o Riverside Dr. | 49.9 | 49.9 | 0.0 | Yes | No |
| 6 | Collier Av. | s/o Nichols Rd. | 67.2 | 67.4 | 0.2 | No | No |
| 7 | Collier Av. | s/o Riverside Dr. | 70.6 | 70.6 | 0.0 | Yes | No |
| 8 | Collier Av. | s/o Central Av. | 67.7 | 67.8 | 0.1 | No | No |
| 9 | El Toro Rd. | s/o Tereticornis Av. | 60.3 | 60.6 | 0.3 | Yes | No |
| 10 | Dexter Av. | n/o Central Av. | 71.6 | 71.6 | 0.0 | No | No |
| 11 | Nichols Rd. | e/o Lake St. | 65.1 | 65.2 | 0.1 | Yes | No |
| 12 | Nichols Rd. | e/o Alberhill Ranch Rd. | 66.1 | 66.1 | 0.0 | Yes | No |
| 13 | Nichols Rd. | w/o Collier Av. | 66.1 | 66.2 | 0.1 | Yes | No |
| 14 | Tereticornis Av. | e/o El Toro Rd. | 55.1 | 55.5 | 0.4 | Yes | No |
| 15 | Riverside Dr. | w/o Lakeshore Dr. | 68.1 | 68.2 | 0.1 | No | No |
| 16 | Riverside Dr. | e/o Lakeshore Dr. | 69.0 | 69.0 | 0.0 | No | No |
| 17 | Riverside Dr. | e/o Strickland Av. | 68.8 | 68.9 | 0.1 | Yes | No |
| 18 | Riverside Dr. | w/o Collier Av. | 68.8 | 68.9 | 0.1 | No | No |
| 19 | Central Av. | w/o Collier Av. | 63.1 | 63.2 | 0.1 | No | No |
| 20 | Central Av. | e/o Dexter Av. | 74.9 | 74.9 | 0.0 | No | No |
| 21 | Central Av. | e/o Cambern Av. | 74.9 | 74.9 | 0.0 | Yes | No |

1. The CNEL is calculated at the boundary of the right-of-way of each roadway and the property line of the nearest adjacent land use.
2. Significance Criteria (subsection 4.11.4).

(Urban Crossroads, 2019, Table 7-21)

### *EA 2024 With Project Buildout Traffic Noise Levels*

Table 7-9 of the Project's NIA (*Technical Appendix J*) presents the EA 2024 without Project conditions CNEL noise levels which are expected to range from 49.9 to 75.2 dBA CNEL, without accounting for any noise attenuation features such as noise barriers or topography. Table 7-10 of the Project's NIA shows the EA 2024 with Project Buildout conditions would range from 52.9 to 75.2 dBA CNEL. As shown on Table 4.11-19, *EA*

*2021 Off-Site Project Buildout-Related Traffic Noise Impacts*, the Project would generate a noise level increase of up to 3.0 dBA CNEL on the study area roadway segments. Based on the significance criteria in subsection 4.11.4, the Project-related noise level increases are considered less than significant under EA 2024 with Project Buildout conditions at the land uses adjacent to roadways conveying Project traffic. (Urban Crossroads, 2019, p. 66)

**Table 4.11-19 EA 2021 Off-Site Project Buildout-Related Traffic Noise Impacts**

| ID | Road | Segment | CNEL at Adjacent Land Use (dBA)[2] | | | Noise-Sensitive? | Threshold Exceeded?[3] |
|---|---|---|---|---|---|---|---|
| | | | No Project | With Project | Project Addition | | |
| 1 | Lake St. | n/o Nichols Rd. | 69.8 | 69.9 | 0.1 | Yes | No |
| 2 | Lake St. | s/o Nichols Rd. | 70.9 | 71.0 | 0.1 | Yes | No |
| 3 | Lake St. | s/o Alberhill Ranch Rd. | 70.8 | 70.9 | 0.1 | Yes | No |
| 4 | Alberhill Ranch Rd. | s/o Nichols Rd. | 58.7 | 59.3 | 0.6 | Yes | No |
| 5 | Strickland Av. | s/o Riverside Dr. | 49.9 | 52.9 | 3.0 | Yes | No |
| 6 | Collier Av. | s/o Nichols Rd. | 67.5 | 68.3 | 0.8 | No | No |
| 7 | Collier Av. | s/o Riverside Dr. | 70.9 | 71.0 | 0.1 | Yes | No |
| 8 | Collier Av. | s/o Central Av. | 68.0 | 68.1 | 0.1 | No | No |
| 9 | El Toro Rd. | s/o Tereticornis Av. | 60.6 | 61.6 | 1.0 | Yes | No |
| 10 | Dexter Av. | n/o Central Av. | 71.8 | 72.0 | 0.2 | No | No |
| 11 | Nichols Rd. | e/o Lake St. | 65.3 | 65.9 | 0.6 | Yes | No |
| 12 | Nichols Rd. | e/o Alberhill Ranch Rd. | 66.3 | 66.9 | 0.6 | Yes | No |
| 13 | Nichols Rd. | w/o Collier Av. | 66.4 | 67.0 | 0.6 | Yes | No |
| 14 | Tereticornis Av. | e/o El Toro Rd. | 56.1 | 56.4 | 0.3 | Yes | No |
| 15 | Riverside Dr. | w/o Lakeshore Dr. | 68.4 | 68.5 | 0.1 | No | No |
| 16 | Riverside Dr. | e/o Lakeshore Dr. | 69.2 | 69.3 | 0.1 | No | No |
| 17 | Riverside Dr. | e/o Strickland Av. | 69.1 | 69.3 | 0.2 | Yes | No |
| 18 | Riverside Dr. | w/o Collier Av. | 69.1 | 69.3 | 0.2 | No | No |
| 19 | Central Av. | w/o Collier Av. | 63.4 | 63.5 | 0.1 | No | No |
| 20 | Central Av. | e/o Dexter Av. | 75.1 | 75.2 | 0.1 | No | No |
| 21 | Central Av. | e/o Cambern Av. | 75.2 | 75.2 | 0.0 | Yes | No |

1. The CNEL is calculated at the boundary of the right-of-way of each roadway and the property line of the nearest adjacent land use.
2. Significance Criteria (subsection 4.11.4).

(Urban Crossroads, 2019, Table 7-22)

❑ EA Plus Cumulative Condition Project Traffic Noise Levels

### *EAC 2020 With Phase 1 Traffic Noise Levels*

Table 7-11 of the Project's NIA (*Technical Appendix J*) presents the EAC 2020 without Project conditions CNEL noise levels which are expected to range from 51.7 to 74.8 dBA CNEL, without accounting for any noise attenuation features such as noise barriers or topography. Table 7-12 of the Project's NIA shows the EAC 2020 with Phase 1 Project conditions would range from 51.7 to 74.8 dBA CNEL. As shown on Table 4.11-20, *EAC 2020 Off-Site Phase 1-Related Traffic Noise Impacts*, the Project would generate a noise level increase of up to 0.4 dBA CNEL on the study area roadway segments. Based on the significance criteria in subsection 4.11.4, the Project-related noise level increases are considered less than significant under EAC 2020 with Phase 1 conditions at the land uses adjacent to roadways conveying Project traffic. (Urban Crossroads, 2019, p. 70)

### *EAC 2021 With Phase 2 Traffic Noise Levels*

Table 7-13 of the Project's NIA (*Technical Appendix J*) presents the EAC 2021 without Project conditions CNEL noise levels which are expected to range from 51.7 to 74.9 dBA CNEL, without accounting for any noise attenuation features such as noise barriers or topography. Table 7-14 of the Project's NIA shows the EAC 2021 with Phase 2 Project conditions would range from 51.7 to 74.9 dBA CNEL. As shown on Table 4.11-21, *EAC 2021 Off-Site Phase 2-Related Traffic Noise Impacts*, the Project would generate a noise level increase of up to 0.3 dBA CNEL on the study area roadway segments. Based on the significance criteria in subsection 4.11.4, the Project-related noise level increases are considered less than significant under EAC 2021 with Phase 2 conditions at the land uses adjacent to roadways conveying Project traffic. (Urban Crossroads, 2019, p. 70)

### *EAC 2024 With Project Buildout Traffic Noise Levels*

Table 7-15 of the Project's NIA (*Technical Appendix J*) presents the EAC 2024 without Project conditions CNEL noise levels which are expected to range from 54.7 to 75.2 dBA CNEL, without accounting for any noise attenuation features such as noise barriers or topography. Table 7-16 of the Project's NIA shows the EAC 2024 with Project Buildout conditions would range from 54.7 to 75.2 dBA CNEL. As shown on Table 4.11-22, *EAC 2024 Off-Site Project Buildout-Related Traffic Noise Impacts*, the Project would generate a noise level increase of up to 0.2 dBA CNEL on the study area roadway segments. Based on the significance criteria in subsection 4.11.4, the Project-related noise level increases are considered less than significant under EAC 2024 with Project Buildout conditions at the land uses adjacent to roadways conveying Project traffic. (Urban Crossroads, 2019, p. 70)

## *2. On-Site Traffic Noise Impacts*

❑ On-Site Exterior Noise Analysis

Using the FHWA noise prediction model and the parameters outlined in Tables 6-5 to 6-7 of the Project's NIA (*Technical Appendix J*), the expected future exterior noise levels for the Project's residential and hotel uses were calculated. Table 4.11-23, *On-Site Exterior Traffic Noise Levels*, presents a summary of future exterior noise level impacts at the single-family residential outdoor living areas (backyards) and first-floor building façade of the hotel building. The on-site transportation noise level impacts indicate that the uses adjacent to

I-15 and Nichols Road would experience unmitigated exterior noise levels ranging from 54.8 to 70.1 dBA CNEL.

**Table 4.11-20 EAC 2020 Off-Site Phase 1-Related Traffic Noise Impacts**

| ID | Road | Segment | CNEL at Adjacent Land Use (dBA)[2] | | | Noise-Sensitive? | Threshold Exceeded?[3] |
|---|---|---|---|---|---|---|---|
| | | | No Project | With Project | Project Addition | | |
| 1 | Lake St. | n/o Nichols Rd. | 70.0 | 70.0 | 0.0 | Yes | No |
| 2 | Lake St. | s/o Nichols Rd. | 71.0 | 71.0 | 0.0 | Yes | No |
| 3 | Lake St. | s/o Alberhill Ranch Rd. | 70.8 | 70.8 | 0.0 | Yes | No |
| 4 | Alberhill Ranch Rd. | s/o Nichols Rd. | 58.5 | 58.5 | 0.0 | Yes | No |
| 5 | Strickland Av. | s/o Riverside Dr. | 51.7 | 51.7 | 0.0 | Yes | No |
| 6 | Collier Av. | s/o Nichols Rd. | 67.5 | 67.5 | 0.0 | No | No |
| 7 | Collier Av. | s/o Riverside Dr. | 70.8 | 70.8 | 0.0 | Yes | No |
| 8 | Collier Av. | s/o Central Av. | 68.0 | 68.0 | 0.0 | No | No |
| 9 | El Toro Rd. | s/o Tereticornis Av. | 60.2 | 60.3 | 0.1 | Yes | No |
| 10 | Dexter Av. | n/o Central Av. | 71.5 | 71.5 | 0.0 | No | No |
| 11 | Nichols Rd. | e/o Lake St. | 66.6 | 66.6 | 0.0 | Yes | No |
| 12 | Nichols Rd. | e/o Alberhill Ranch Rd. | 67.3 | 67.3 | 0.0 | Yes | No |
| 13 | Nichols Rd. | w/o Collier Av. | 67.4 | 67.4 | 0.0 | Yes | No |
| 14 | Tereticornis Av. | e/o El Toro Rd. | 55.1 | 55.5 | 0.4 | Yes | No |
| 15 | Riverside Dr. | w/o Lakeshore Dr. | 68.2 | 68.2 | 0.0 | No | No |
| 16 | Riverside Dr. | e/o Lakeshore Dr. | 69.1 | 69.1 | 0.0 | No | No |
| 17 | Riverside Dr. | e/o Strickland Av. | 68.9 | 68.9 | 0.0 | Yes | No |
| 18 | Riverside Dr. | w/o Collier Av. | 68.9 | 69.0 | 0.1 | No | No |
| 19 | Central Av. | w/o Collier Av. | 63.1 | 63.1 | 0.0 | No | No |
| 20 | Central Av. | e/o Dexter Av. | 74.8 | 74.8 | 0.0 | No | No |
| 21 | Central Av. | e/o Cambern Av. | 74.8 | 74.8 | 0.0 | Yes | No |

1. The CNEL is calculated at the boundary of the right-of-way of each roadway and the property line of the nearest adjacent land use.
2. Significance Criteria (subsection 4.11.4).

(Urban Crossroads, 2019, Table 7-23)

## Table 4.11-21 EAC 2021 Off-Site Phase 2-Related Traffic Noise Impacts

| ID | Road | Segment | CNEL at Adjacent Land Use (dBA)[2] | | | Noise-Sensitive? | Threshold Exceeded?[3] |
|---|---|---|---|---|---|---|---|
| | | | No Project | With Project | Project Addition | | |
| 1 | Lake St. | n/o Nichols Rd. | 70.3 | 70.3 | 0.0 | Yes | No |
| 2 | Lake St. | s/o Nichols Rd. | 71.2 | 71.2 | 0.0 | Yes | No |
| 3 | Lake St. | s/o Alberhill Ranch Rd. | 71.1 | 71.1 | 0.0 | Yes | No |
| 4 | Alberhill Ranch Rd. | s/o Nichols Rd. | 58.7 | 58.7 | 0.0 | Yes | No |
| 5 | Strickland Av. | s/o Riverside Dr. | 51.7 | 51.7 | 0.0 | Yes | No |
| 6 | Collier Av. | s/o Nichols Rd. | 67.6 | 67.8 | 0.2 | No | No |
| 7 | Collier Av. | s/o Riverside Dr. | 71.0 | 71.0 | 0.0 | Yes | No |
| 8 | Collier Av. | s/o Central Av. | 68.2 | 68.2 | 0.0 | No | No |
| 9 | El Toro Rd. | s/o Tereticornis Av. | 60.3 | 60.6 | 0.3 | Yes | No |
| 10 | Dexter Av. | n/o Central Av. | 71.6 | 71.6 | 0.0 | No | No |
| 11 | Nichols Rd. | e/o Lake St. | 67.3 | 67.3 | 0.0 | Yes | No |
| 12 | Nichols Rd. | e/o Alberhill Ranch Rd. | 67.9 | 67.9 | 0.0 | Yes | No |
| 13 | Nichols Rd. | w/o Collier Av. | 68.0 | 68.0 | 0.0 | Yes | No |
| 14 | Tereticornis Av. | e/o El Toro Rd. | 55.5 | 55.5 | 0.0 | Yes | No |
| 15 | Riverside Dr. | w/o Lakeshore Dr. | 68.4 | 68.4 | 0.0 | No | No |
| 16 | Riverside Dr. | e/o Lakeshore Dr. | 69.2 | 69.3 | 0.1 | No | No |
| 17 | Riverside Dr. | e/o Strickland Av. | 69.1 | 69.1 | 0.0 | Yes | No |
| 18 | Riverside Dr. | w/o Collier Av. | 69.1 | 69.2 | 0.1 | No | No |
| 19 | Central Av. | w/o Collier Av. | 63.2 | 63.3 | 0.1 | No | No |
| 20 | Central Av. | e/o Dexter Av. | 74.9 | 74.9 | 0.0 | No | No |
| 21 | Central Av. | e/o Cambern Av. | 74.9 | 74.9 | 0.0 | Yes | No |

1. The CNEL is calculated at the boundary of the right-of-way of each roadway and the property line of the nearest adjacent land use.
2. Significance Criteria (subsection 4.11.4).

(Urban Crossroads, 2019, Table 7-24)

## Table 4.11-22 EAC 2024 Off-Site Project Buildout-Related Traffic Noise Impacts

| ID | Road | Segment | CNEL at Adjacent Land Use (dBA)[2] | | | Noise-Sensitive? | Threshold Exceeded?[3] |
|---|---|---|---|---|---|---|---|
| | | | No Project | With Project | Project Addition | | |
| 1 | Lake St. | n/o Nichols Rd. | 71.2 | 71.2 | 0.0 | Yes | No |
| 2 | Lake St. | s/o Nichols Rd. | 72.0 | 72.0 | 0.0 | Yes | No |
| 3 | Lake St. | s/o Alberhill Ranch Rd. | 71.9 | 71.9 | 0.0 | Yes | No |
| 4 | Alberhill Ranch Rd. | s/o Nichols Rd. | 59.5 | 59.5 | 0.0 | Yes | No |
| 5 | Strickland Av. | s/o Riverside Dr. | 54.7 | 54.7 | 0.0 | Yes | No |
| 6 | Collier Av. | s/o Nichols Rd. | 68.8 | 68.9 | 0.1 | No | No |
| 7 | Collier Av. | s/o Riverside Dr. | 71.6 | 71.6 | 0.0 | Yes | No |
| 8 | Collier Av. | s/o Central Av. | 68.9 | 68.9 | 0.0 | No | No |
| 9 | El Toro Rd. | s/o Tereticornis Av. | 61.5 | 61.7 | 0.2 | Yes | No |
| 10 | Dexter Av. | n/o Central Av. | 72.0 | 72.0 | 0.0 | No | No |
| 11 | Nichols Rd. | e/o Lake St. | 69.1 | 69.1 | 0.0 | Yes | No |
| 12 | Nichols Rd. | e/o Alberhill Ranch Rd. | 69.6 | 69.6 | 0.0 | Yes | No |
| 13 | Nichols Rd. | w/o Collier Av. | 69.7 | 69.7 | 0.0 | Yes | No |
| 14 | Tereticornis Av. | e/o El Toro Rd. | 56.4 | 56.4 | 0.0 | Yes | No |
| 15 | Riverside Dr. | w/o Lakeshore Dr. | 68.8 | 68.8 | 0.0 | No | No |
| 16 | Riverside Dr. | e/o Lakeshore Dr. | 69.8 | 69.8 | 0.0 | No | No |
| 17 | Riverside Dr. | e/o Strickland Av. | 69.7 | 69.8 | 0.1 | Yes | No |
| 18 | Riverside Dr. | w/o Collier Av. | 69.8 | 69.8 | 0.0 | No | No |
| 19 | Central Av. | w/o Collier Av. | 63.6 | 63.7 | 0.1 | No | No |
| 20 | Central Av. | e/o Dexter Av. | 75.2 | 75.2 | 0.0 | No | No |
| 21 | Central Av. | e/o Cambern Av. | 75.2 | 75.2 | 0.0 | Yes | No |

1. The CNEL is calculated at the boundary of the right-of-way of each roadway and the property line of the nearest adjacent land use.
2. Significance Criteria (subsection 4.11.4).

(Urban Crossroads, 2019, Table 7-25)

**Table 4.11-23 On-Site Exterior Traffic Noise Levels**

| Receiver Location | Roadway | Unmitigated Exterior Noise Levels (dBA CNEL) | Mitigated Exterior Noise Levels (dBA CNEL) | Barrier Height (Feet) | Residential Threshold Exceeded? (60 dBA CNEL) |
|---|---|---|---|---|---|
| Hotel | I-15 Fwy. | 63.0 | –[1] | –[1] | –[1] |
| 91 | I-15 Fwy. | 54.8 | –[2] | –[2] | No |
| 99 | I-15 Fwy. | 59.7 | –[2] | –[2] | No |
| 80 | Nichols Rd. | 70.1 | 59.9 | 8.0 | No |
| 45 | Nichols Rd. | 69.8 | 59.8 | 8.0 | No |
| 35 | Nichols Rd. | 68.1 | 58.0 | 8.0 | No |

[1] The City of Lake Elsinore does not identify exterior noise level limits for hotel uses. No exterior noise mitigation is required. Unmitigated exterior noise levels at the hotel building include the attenuation provided by the elevation changes and earthen berm between the I-15 Freeway and the Project site.
[2] The exterior noise level satisfies the City of Lake Elsinore 60 dBA CNEL exterior noise level standard for residential uses without any exterior noise mitigation. Unmitigated exterior noise levels at lots 91 and 99 include the attenuation provided by the elevation changes and earthen berm between the I-15 Freeway and the Project site.

(Urban Crossroads, 2019, Table 8-1)

As a general matter, CEQA does not require the analysis of the environment's impact on the proposed Project (see the decision reached by the Supreme Court in *California Building Industry Association* v. *Bay Area Air Quality Management District* (2015) 62 Cal.4th 369, Case No. S213478). Therefore, CEQA does not require that the potential noise impacts from the environment (unrelated to the Project) be analyzed with respect to their effect(s) on future residents of the proposed Project. Nonetheless, General Plan Policy 7.1 requires new development to meet the standards set forth in the Lake Elsinore Noise and Land Use Compatibility Matrix (see Figure 4.11-4) and Interior and Exterior Noise Standards (see Table 4.11-5). Because proposed residential dwelling units would be exposed to exterior noise levels exceeding the limits specified by General Plan Policy 7.1 (i.e., exterior noise level limit of 60 dBA), Project impacts would be significant. The on-site traffic noise analysis calculations are provided in Appendix 8.1 of the Project's NIA. (Urban Crossroads, 2019, p. 75)

The future hotel use within the Project site would experience on-site traffic noise levels approaching 63.0 dBA CNEL. Based on Table 3-1 of the City of Lake Elsinore General Plan Public Safety and Welfare Element, hotel uses experiencing unmitigated exterior noise levels ranging from 60 to 70 dBA CNEL are considered normally compatible, and detailed analysis of interior noise reduction measures should be provided. At the time of analysis, the location and detailed building plans for the hotel building were not available. Therefore, it is possible that the interior noise levels at the hotel could exceed 45 dBA CNEL. As noted above, although CEQA does not require the analysis of the environment's impact on the proposed Project, and based on the projected exterior noise levels affecting the hotel building, the hotel may experience interior noise levels that exceed the limits specified by General Plan Policy 7.1 (i.e., 45 dBA interior noise level-limit). This is evaluated as a potentially significant impact for which mitigation would be required. (Urban Crossroads, 2019, p. 75)

❑ On-Site Interior Noise Analysis

To ensure that the interior noise levels comply with the City of Lake Elsinore interior noise level standards, future noise levels were calculated at the first, second, third, and fourth floor and above building facades. The proposed residential uses would have a maximum height of two stories, while the proposed hotel use could have up to four stories. (Urban Crossroads, 2019, p. 76)

The interior noise level is the difference between the predicted exterior noise level at the building facade and the noise reduction of the structure. Typical building construction will provide a Noise Reduction (NR) of approximately 12 dBA with "windows open" and a minimum 25 dBA noise reduction with "windows closed." However, sound leaks, cracks, and openings within the window assembly can greatly diminish its effectiveness in reducing noise. Several methods are used to improve interior noise reduction, including: (1) weather-stripped solid core exterior doors; (2) upgraded dual glazed windows; (3) mechanical ventilation/air conditioning; and (4) exterior wall/roof assembles free of cut outs or openings.

Table 4.11-24 through Table 4.11-27 indicate that buildings facing I-15 and Nichols Road would require a windows-closed condition and a means of mechanical ventilation (e.g. air conditioning). Table 4.11-24, *First Floor Interior Noise Level Impacts (dBA CNEL)*, shows that the future unmitigated noise levels at the first-floor building façade are expected to range from 54.6 to 63.0 dBA CNEL. Table 4.11-25, *Second Floor Interior Noise Level Impacts (dBA CNEL)*, shows that the future noise levels at the second-floor building façade are expected to range from 55.5 to 72.8 dBA CNEL, and Table 4.11-26, *Third Floor Interior Noise Level Impacts (dBA CNEL)*, shows that the third-floor noise levels at the hotel would approach 72.8 dBA CNEL. Fourth floor and above building façades of the hotel building would experience noise levels approaching 67.5 dBA CNEL, as shown on Table 4.11-27, *Fourth Floor and Above Interior Noise Level Impacts (dBA CNEL)*. As previously indicated, CEQA does not require that the potential noise impacts from the environment (unrelated to the Project) be analyzed with respect to their effect(s) on future residents of the proposed Project. Nonetheless, the interior noise levels projected for the proposed residences and the hotel use would exceed the interior noise limits established by General Plan Policy 7.1. Therefore, Project impacts due to interior noise levels would be significant prior to mitigation for residential lots facing Nichols Road and/or I-15 and the proposed hotel.

### *3. Project Operational Impacts*

To estimate the Project operational noise impacts, reference noise level measurements were collected from similar types of activities to represent the noise levels expected with the development of the proposed Project. The analysis of the Project's operational impacts is based on the worst-case noise environment with the roof-top air conditioning units, parking lot vehicle movements, a drive-through speakerphone, gas station activity, a car wash, and park activity all operating simultaneously. Reference noise levels used in the analysis are presented on Table 4.11-28, *Reference Noise Level Measurements*, and are described in detail in subsections 10.1.1 through 10.1.6 of the Project's NIA (*Technical Appendix J*). Noise level impacts from Project operational sources would vary throughout the day. (Urban Crossroads, 2019, p. 81)

## Table 4.11-24 First Floor Interior Noise Level Impacts (dBA CNEL)

| Receiver Location | Noise Level at Façade[1] | Required Interior NR[2] | Estimated Interior NR[3] | Upgraded Windows[4] | Interior Noise Level[5] |
|---|---|---|---|---|---|
| Hotel | 63.0 | 18.0 | 30 | Yes | 33.0 |
| 91 | 54.6 | 9.6 | 25 | No | 29.6 |
| 99 | 59.5 | 14.5 | 25 | No | 34.5 |
| 80 | 59.7 | 14.7 | 25 | No | 34.7 |
| 45 | 59.7 | 14.7 | 25 | No | 34.7 |
| 35 | 59.0 | 14.0 | 25 | No | 34.0 |

[1] Exterior noise level at the facade with a windows closed condition requiring a means of mechanical ventilation (e.g. air conditioning).
[2] Noise reduction required to satisfy the 45 dBA CNEL interior noise standards.
[3] A minimum of 25 dBA noise reduction is assumed with standard building construction.
[4] Does the required interior noise reduction trigger upgraded windows with a minimum STC rating of greater than 27?
[5] Estimated interior noise level with minimum STC rating for all windows.
"NR" = Noise Reduction

(Urban Crossroads, 2019, Table 8-2)

## Table 4.11-25 Second Floor Interior Noise Level Impacts (dBA CNEL)

| Receiver Location | Noise Level at Façade[1] | Required Interior NR[2] | Estimated Interior NR[3] | Upgraded Windows[4] | Interior Noise Level[5] |
|---|---|---|---|---|---|
| Hotel | 72.8 | 27.8 | 30 | Yes | 42.8 |
| 91 | 55.5 | 10.5 | 25 | No | 30.5 |
| 99 | 60.9 | 15.9 | 25 | No | 35.9 |
| 80 | 69.3 | 24.3 | 25 | No | 44.3 |
| 45 | 69.0 | 24.0 | 25 | No | 44.0 |
| 35 | 66.6 | 21.6 | 25 | No | 41.6 |

[1] Exterior noise level at the facade with a windows closed condition requiring a means of mechanical ventilation (e.g. air conditioning).
[2] Noise reduction required to satisfy the 45 dBA CNEL interior noise standards.
[3] A minimum of 25 dBA noise reduction is assumed with standard building construction.
[4] Does the required interior noise reduction trigger upgraded windows with a minimum STC rating of greater than 27?
[5] Estimated interior noise level with minimum STC rating for all windows.
"NR" = Noise Reduction

(Urban Crossroads, 2019, Table 8-3)

## Table 4.11-26 Third Floor Interior Noise Level Impacts (dBA CNEL)

| Receiver Location | Noise Level at Façade[1] | Required Interior NR[2] | Estimated Interior NR[3] | Upgraded Windows[4] | Interior Noise Level[5] |
|---|---|---|---|---|---|
| Hotel | 72.8 | 27.8 | 30 | Yes | 42.8 |
| 91 | –[6] | –[6] | –[6] | –[6] | –[6] |
| 99 | –[6] | –[6] | –[6] | –[6] | –[6] |
| 80 | –[6] | –[6] | –[6] | –[6] | –[6] |
| 45 | –[6] | –[6] | –[6] | –[6] | –[6] |
| 35 | –[6] | –[6] | –[6] | –[6] | –[6] |

[1] Exterior noise level at the facade with a windows closed condition requiring a means of mechanical ventilation (e.g. air conditioning).
[2] Noise reduction required to satisfy the 45 dBA CNEL interior noise standards.
[3] A minimum of 25 dBA noise reduction is assumed with standard building construction.
[4] Does the required interior noise reduction trigger upgraded windows with a minimum STC rating of greater than 27?
[5] Estimated interior noise level with minimum STC rating for all windows.
[6] The given receiver location is not anticipated to have third floor interior areas.
"NR" = Noise Reduction

(Urban Crossroads, 2019, Table 8-4)

## Table 4.11-27 Fourth Floor and Above Interior Noise Level Impacts (dBA CNEL)

| Receiver Location | Noise Level at Façade[1] | Required Interior NR[2] | Estimated Interior NR[3] | Upgraded Windows[4] | Interior Noise Level[5] |
|---|---|---|---|---|---|
| Hotel | 72.8 | 27.8 | 30 | Yes | 42.8 |
| 91 | –[6] | –[6] | –[6] | –[6] | –[6] |
| 99 | –[6] | –[6] | –[6] | –[6] | –[6] |
| 80 | –[6] | –[6] | –[6] | –[6] | –[6] |
| 45 | –[6] | –[6] | –[6] | –[6] | –[6] |
| 35 | –[6] | –[6] | –[6] | –[6] | –[6] |

[1] Exterior noise level at the facade with a windows closed condition requiring a means of mechanical ventilation (e.g. air conditioning).
[2] Noise reduction required to satisfy the 45 dBA CNEL interior noise standards.
[3] A minimum of 25 dBA noise reduction is assumed with standard building construction.
[4] Does the required interior noise reduction trigger upgraded windows with a minimum STC rating of greater than 27?
[5] Estimated interior noise level with minimum STC rating for all windows.
[6] The given receiver location is not anticipated to have fourth floor interior areas.
"NR" = Noise Reduction

(Urban Crossroads, 2019, Table 8-5)

**Table 4.11-28 Reference Noise Level Measurements**

| Noise Source | Measurement Duration (hh:mm:ss) | Distance From Source (Feet) | Noise Source Height (Feet) | Reference Noise Levels (dBA $L_{50}$) | |
|---|---|---|---|---|---|
| | | | | @ Ref. Dist. | @ 50 Feet |
| Roof-Top Air Conditioning Units[1] | 96:00:00 | 5' | 5' | 74.4 | 54.4 |
| Parking Lot Vehicle Movements[2] | 00:15:00 | 5' | 4' | 56.7 | 41.7 |
| Drive-Through Speakerphone[3] | 02:00:00 | 15' | 3' | 60.9 | 50.4 |
| Gas Station Activity[4] | 00:03:00 | 5' | 5' | 65.6 | 45.6 |
| Car Wash[5] | 00:01:05 | 50' | 6' | 77.6 | 77.6 |
| Park Activity[6] | 00:15:00 | 5' | 4' | 61.7 | 41.7 |

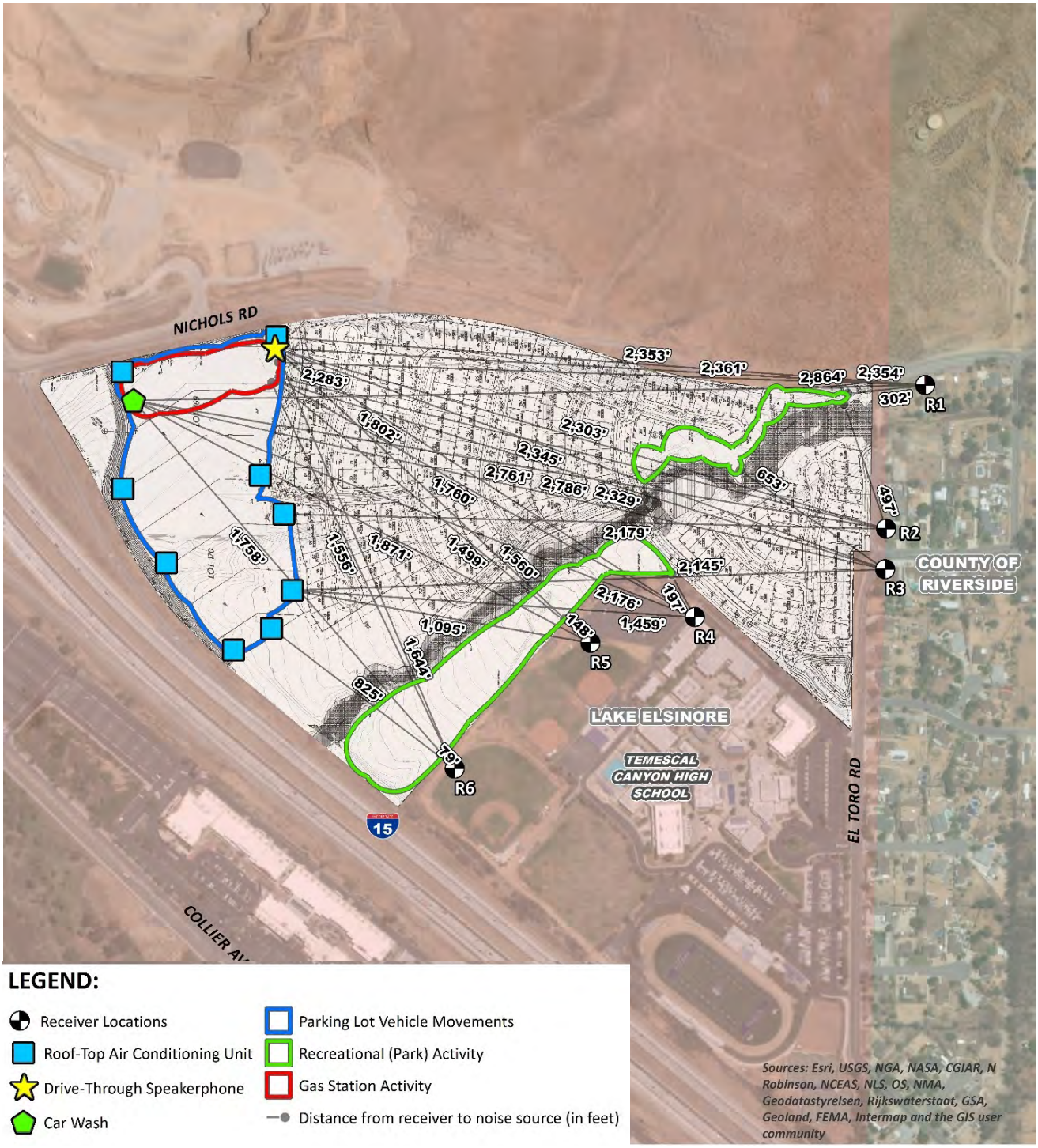
[1] As measured by Urban Crossroads, Inc. on 7/27/2015 at the Santee Walmart located at 170 Town Center Parkway.
[2] As measured by Urban Crossroads, Inc. on 5/30/2012 at the Laguna Niguel Walmart located at 27470 Alicia Parkway.
[3] As measured by Urban Crossroads, Inc. on 12/19/2014 at the Panera Bread located at 423 Associated Road in Brea.
[4] As measured by Urban Crossroads, Inc. on 4/26/2016 at the ARCO gas station located at 6501 Quail Hill Parkway in Irvine.
[5] As measured by Urban Crossroads, Inc. on 5/16/2017 at the Shell gas station with drive-through car wash on Rancho Parkway in the City of Lake Forest.
[6] As measured by Urban Crossroads, Inc. on 10/8/2014 at the Founders Park in the unincorporated community of Ladera Ranch in the County of Orange.

(Urban Crossroads, 2019, Table 10-1)

Based upon the reference noise levels, it is possible to estimate the Project operational stationary-source noise levels at each of the sensitive receiver locations. Sensitive Receptor locations in relation to Project operational noise sources are depicted on Figure 4.11-7, *Operational Noise Source and Receiver Locations*. The operational noise level calculations shown on Table 4.11-29, *Unmitigated Project Operational Noise Levels*, account for the distance attenuation provided due to geometric spreading, when sound from a localized stationary source (i.e., a point source) propagates uniformly outward in a spherical pattern. Hard site conditions are used in the operational noise analysis which result in noise levels that attenuate (or decrease) at a rate of 6 dBA for each doubling of distance from a point source. The basic noise attenuation equation shown below is used to calculate the distance attenuation based on a reference noise level ($SPL_1$): (Urban Crossroads, 2019, p. 85)

$$SPL_2 = SPL_1 - 20\log(D_2/D_1)$$

Where $SPL_2$ is the resulting noise level after attenuation, $SPL_1$ is the source noise level, $D_2$ is the distance to the reference sound pressure level ($SPL_1$), and $D_1$ is the distance to the receiver location. Table 4.11-29 indicates that the noise levels associated with the roof-top air conditioning units, parking lot vehicle movements, a drive-through speakerphone, gas station activity, a car wash, and park activity are expected to range from 42.6 to 47.3 dBA $L_{50}$ at the sensitive off-site receiver locations. The operational noise level calculation worksheets are included in Appendix 10.1 to the Project's NIA (*Technical Appendix J*). (Urban Crossroads, 2019, p. 85)




Source(s): Urban Crossroads (08-28-2018)

Figure 4.11-7

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**OPERATIONAL NOISE SOURCE AND RECEIVER LOCATIONS**

## Table 4.11-29 Unmitigated Project Operational Noise Levels

| Receiver Location[1] | Land Use | Noise Sources[2] | Operational Noise Levels (dBA)[3] | | | | |
|---|---|---|---|---|---|---|---|
| | | | $L_{50}$ (30 mins) | $L_{25}$ (15 mins) | $L_8$ (5 mins) | $L_2$ (1 min) | $L_{max}$ (Anytime) |
| R1 | SFR | Roof-Top Air Conditioning Units | 20.9 | 22.6 | 23.9 | 24.2 | 24.7 |
| | | Parking Lot Vehicle Movements | 16.6 | 20.6 | 23.6 | 27.0 | 39.4 |
| | | Drive-Through Speakerphone | 17.0 | 18.2 | 19.7 | 21.4 | 22.5 |
| | | Gas Station Activity | 12.1 | 13.4 | 16.0 | 20.9 | 28.9 |
| | | Car Wash | 42.4 | 43.1 | 43.7 | 44.0 | 44.2 |
| | | Park Activity | 26.1 | 28.5 | 31.4 | 34.1 | 38.3 |
| | | Combined Noise Level: | 42.6 | 43.3 | 44.1 | 44.6 | 46.3 |
| R2 | SFR | Roof-Top Air Conditioning Units | 21.6 | 23.3 | 24.6 | 24.9 | 25.4 |
| | | Parking Lot Vehicle Movements | 17.1 | 21.1 | 24.1 | 27.5 | 39.9 |
| | | Drive-Through Speakerphone | 17.2 | 18.4 | 19.9 | 21.6 | 22.7 |
| | | Gas Station Activity | 12.4 | 13.7 | 16.3 | 21.2 | 29.2 |
| | | Car Wash | 42.8 | 43.5 | 44.1 | 44.4 | 44.6 |
| | | Park Activity | 21.8 | 24.2 | 27.1 | 29.8 | 34.0 |
| | | Combined Noise Level: | 42.9 | 43.6 | 44.3 | 44.7 | 46.3 |
| R3 | SFR | Roof-Top Air Conditioning Units | 21.8 | 23.5 | 24.8 | 25.1 | 25.6 |
| | | Parking Lot Vehicle Movements | 17.2 | 21.2 | 24.2 | 27.6 | 40.0 |
| | | Drive-Through Speakerphone | 17.0 | 18.2 | 19.7 | 21.4 | 22.5 |
| | | Gas Station Activity | 12.2 | 13.5 | 16.1 | 21.0 | 29.0 |
| | | Car Wash | 42.7 | 43.4 | 44.0 | 44.3 | 44.5 |
| | | Park Activity | 19.4 | 21.8 | 24.7 | 27.4 | 31.6 |
| | | Combined Noise Level: | 42.8 | 43.5 | 44.2 | 44.6 | 46.1 |
| R4 | School | Roof-Top Air Conditioning Units | 25.1 | 26.8 | 28.1 | 28.4 | 28.9 |
| | | Parking Lot Vehicle Movements | 19.7 | 23.7 | 26.7 | 30.1 | 42.5 |
| | | Drive-Through Speakerphone | 19.3 | 20.5 | 22.0 | 23.7 | 24.8 |
| | | Gas Station Activity | 14.7 | 16.0 | 18.6 | 23.5 | 31.5 |
| | | Car Wash | 44.8 | 45.5 | 46.1 | 46.4 | 46.6 |
| | | Park Activity | 29.8 | 32.2 | 35.1 | 37.8 | 42.0 |
| | | Combined Noise Level: | 45.0 | 45.8 | 46.6 | 47.1 | 49.1 |
| R5 | School | Roof-Top Air Conditioning Units | 27.6 | 29.3 | 30.6 | 30.9 | 31.4 |
| | | Parking Lot Vehicle Movements | 21.6 | 25.6 | 28.6 | 32.0 | 44.4 |
| | | Drive-Through Speakerphone | 20.6 | 21.8 | 23.3 | 25.0 | 26.1 |
| | | Gas Station Activity | 16.1 | 17.4 | 20.0 | 24.9 | 32.9 |
| | | Car Wash | 46.1 | 46.8 | 47.4 | 47.7 | 47.9 |
| | | Park Activity | 32.3 | 34.7 | 37.6 | 40.3 | 44.5 |
| | | Combined Noise Level: | 46.4 | 47.2 | 48.0 | 48.6 | 50.8 |
| R6 | School | Roof-Top Air Conditioning Units | 30.1 | 31.8 | 33.1 | 33.4 | 33.9 |
| | | Parking Lot Vehicle Movements | 23.4 | 27.4 | 30.4 | 33.8 | 46.2 |
| | | Drive-Through Speakerphone | 20.1 | 21.3 | 22.8 | 24.5 | 25.6 |
| | | Gas Station Activity | 15.7 | 17.0 | 19.6 | 24.5 | 32.5 |
| | | Car Wash | 46.7 | 47.4 | 48.0 | 48.3 | 48.5 |
| | | Park Activity | 37.7 | 40.1 | 43.0 | 45.7 | 49.9 |
| | | Combined Noise Level: | 47.3 | 48.3 | 49.4 | 50.4 | 53.3 |

1. See Figure 4.11-7 for the receiver and noise source locations.
2. Reference noise sources as shown on Table 4.11-28.
3. Stationary source noise level calculations are provided in Appendix 10.1 of the Project's NIA (*Technical Appendix J*).

"SFR" = Single-Family Residential
(Urban Crossroads, 2019, Table 10-2)

To demonstrate compliance with local noise regulations, the Project-only operational noise levels are evaluated against exterior noise level threshold based on the City of Lake Elsinore. Table 4.11-30, *Unmitigated Operational Noise Level Compliance*, shows the operational noise levels associated with the proposed Project would exceed the nighttime exterior noise level standards at receiver locations R1 to R3. All other receiver locations are shown to experience operational noise levels below the daytime and nighttime exterior noise level standards. Therefore, Project operational-related noise represents a potentially significant impact prior to mitigation. (Urban Crossroads, 2019, p. 87)

**Table 4.11-30 Unmitigated Operational Noise Level Compliance**

| Receiver Location[1] | Land Use | Noise Sources[2] | Operational Noise Levels (dBA)[3] | | | | |
|---|---|---|---|---|---|---|---|
| | | | $L_{50}$ (30 mins) | $L_{25}$ (15 mins) | $L_8$ (5 mins) | $L_2$ (1 min) | $L_{max}$ (Anytime) |
| R6 | School | Roof-Top Air Conditioning Units | 30.1 | 31.8 | 33.1 | 33.4 | 33.9 |
| | | Parking Lot Vehicle Movements | 23.4 | 27.4 | 30.4 | 33.8 | 46.2 |
| | | Drive-Through Speakerphone | 20.1 | 21.3 | 22.8 | 24.5 | 25.6 |
| | | Gas Station Activity | 15.7 | 17.0 | 19.6 | 24.5 | 32.5 |
| | | Car Wash | 46.7 | 47.4 | 48.0 | 48.3 | 48.5 |
| | | Park Activity | 37.7 | 40.1 | 43.0 | 45.7 | 49.9 |
| | | Combined Noise Level: | 47.3 | 48.3 | 49.4 | 50.4 | 53.3 |

1. See Figure 4.11-7 for the receiver and noise source locations.
2. Estimated Project operational noise levels as shown on Table 4.11-29.
3. Do the Project operational noise levels satisfy the operational noise level standards (Table 4.11-3)?
"Daytime" = 7:00 a.m. to 10:00 p.m.; "Nighttime" = 10:00 p.m. to 7:00 a.m.; "SFR" = Single-Family Residential
(Urban Crossroads, 2019, Table 10-3)

### *4. Project Operational Noise Level Contributions*

To describe the Project operational noise level contributions, the Project operational noise levels were combined with the existing ambient noise levels measurements for the off-site receiver locations potentially impacted by Project operational noise sources. Since the units used to measure noise, decibels (dB), are logarithmic units, the Project-operational and existing ambient noise levels cannot be combined using standard arithmetic equations. Instead, they must be logarithmically added using the following base equation: (Urban Crossroads, 2019, p. 90)

$$SPL_{Total} = 10\log_{10}[10^{SPL1/10} + 10^{SPL2/10} + \ldots 10^{SPLn/10}]$$

Where "SPL1," "SPL2," etc. are equal to the sound pressure levels being combined, or in this case, the Project-operational and existing ambient noise levels. The difference between the combined Project and ambient noise levels describe the Project noise level contributions. Noise levels that would be experienced at receiver locations when unmitigated Project-source noise is added to the ambient daytime and nighttime conditions are presented on Table 4.11-31, *Unmitigated Daytime Operational Noise Level Contributions*, and Table 4.11-32, *Unmitigated Nighttime Operational Noise Level Contributions*, respectively. (Urban Crossroads, 2019, p. 90)

### Table 4.11-31 Unmitigated Daytime Operational Noise Level Contributions

| Receiver Location[1] | Unmitigated Project Operational Noise Level (dBA $L_{50}$)[2] | Measurement Location[3] | Reference Ambient Noise Levels (dBA $L_{50}$)[4] | Combined Project and Ambient (dBA $L_{50}$)[5] | Project Increase (dBA $L_{50}$)[6] | Threshold[7] | Threshold Exceeded?[7] |
|---|---|---|---|---|---|---|---|
| R1 | 42.6 | L4 | 50.9 | 51.5 | 0.6 | 5.0 | No |
| R2 | 42.9 | L4 | 50.9 | 51.5 | 0.6 | 5.0 | No |
| R3 | 42.8 | L5 | 54.7 | 55.0 | 0.3 | 5.0 | No |
| R4 | 45.0 | L6 | 61.5 | 61.6 | 0.1 | 3.0 | No |
| R3 | 46.4 | L6 | 61.5 | 61.6 | 0.1 | 3.0 | No |
| R4 | 47.3 | L6 | 61.5 | 61.7 | 0.2 | 3.0 | No |

1. See Figure 4.11-5 for the sensitive receiver locations.
2. Total Project operational noise levels as shown on Table 4.11-29.
3. Reference noise level measurement locations as shown on Figure 4.11-3.
4. Observed daytime ambient noise levels as shown on Table 4.11-1.
5. Represents the combined ambient conditions plus the Project activities.
6. The noise level increase expected with the addition of the proposed Project activities.
7. FICON significance criteria as defined in Table 4.11-8, based on the ambient noise level without the Project.
(Urban Crossroads, 2019, Table 10-6)

### Table 4.11-32 Unmitigated Nighttime Operational Noise Level Contributions

| Receiver Location[1] | Unmitigated Project Operational Noise Level (dBA $L_{50}$)[2] | Measurement Location[3] | Reference Ambient Noise Levels (dBA $L_{50}$)[4] | Combined Project and Ambient (dBA $L_{50}$)[5] | Project Increase (dBA $L_{50}$)[6] | Threshold[7] | Threshold Exceeded?[7] |
|---|---|---|---|---|---|---|---|
| R1 | 42.6 | L4 | 49.9 | 50.6 | 0.7 | 5.0 | No |
| R2 | 42.9 | L4 | 49.9 | 50.7 | 0.8 | 5.0 | No |
| R3 | 42.8 | L5 | 53.7 | 54.0 | 0.3 | 5.0 | No |
| R4 | 45.0 | L6 | 57.8 | 58.0 | 0.2 | 5.0 | No |
| R3 | 46.4 | L6 | 57.8 | 58.1 | 0.3 | 5.0 | No |
| R4 | 47.3 | L6 | 57.8 | 58.2 | 0.4 | 5.0 | No |

1. See Figure 4.11-5 for the sensitive receiver locations.
2. Total Project operational noise levels as shown on Table 4.11-29.
3. Reference noise level measurement locations as shown on Figure 4.11-3.
4. Observed daytime ambient noise levels as shown on Table 4.11-1.
5. Represents the combined ambient conditions plus the Project activities.
6. The noise level increase expected with the addition of the proposed Project activities.
7. FICON significance criteria as defined in Table 4.11-8, based on the ambient noise level without the Project.
(Urban Crossroads, 2019, Table 10-7)

As indicated on Table 4.11-31 and Table 4.11-32, the Project would contribute operational noise level increases over the existing ambient noise levels which ranging from 0.1 to 0.8 dBA $L_{50}$ during the daytime hours and nighttime hours. Since the Project-related operational noise level contributions would satisfy the

significance criteria discussed in subsection 4.11.4, the increases at the sensitive receiver locations would be less than significant.

***Threshold b.:*** ***Would the Project result in the generation of excessive ground borne vibration or ground borne noise levels?***

The proposed Project would only have the potential to result in excessive ground borne vibration or ground borne noise levels during construction activities, as Project operational activities would not involve a large number of large trucks or uneven surfaces that could produce ground borne vibration affecting nearby sensitive receptors. The Project's potential to result in near-term construction-related vibration impacts is discussed below.

Construction activity can result in varying degrees of ground vibration, depending on the equipment and methods used, distance to the affected structures and soil type. It is expected that ground-borne vibration from Project construction activities would cause only intermittent, localized intrusion. The proposed Project's construction activities most likely to cause vibration impacts are: (Urban Crossroads, 2019, p. 105)

- Heavy Construction Equipment: Although all heavy mobile construction equipment has the potential of causing at least some perceptible vibration while operating close to buildings, the vibration is usually short-term and is not of sufficient magnitude to cause building damage. (Urban Crossroads, 2019, p. 105)

- Trucks: Trucks hauling building materials to construction sites can be sources of vibration intrusion if the haul routes pass through residential neighborhoods on streets with bumps or potholes. Repairing the bumps and potholes generally eliminates the problem. (Urban Crossroads, 2019, p. 105)

Ground-borne vibration levels resulting from construction activities occurring within the Project site were estimated by data published by the Federal Transit Administration (FTA). Construction activities that would have the potential to generate low levels of ground-borne vibration within the Project site include grading. Using the vibration source level of construction equipment previously provided on Table 4.11-11 and the construction vibration assessment methodology published by the FTA, it is possible to estimate the Project vibration impacts. Table 4.11-33, *Unmitigated Construction Equipment Vibration Levels*, presents the expected Project related vibration levels at each of the sensitive receiver locations. (Urban Crossroads, 2019, p. 105)

Based on the reference vibration levels provided by the FTA, a large bulldozer represents the peak source of vibration with a reference velocity of 0.089 in/sec (PPV) at 25 feet. At distances ranging from 66 to 203 feet from the Project construction activities, construction vibration velocity levels are expected to approach 0.021 in/sec (PPV), as shown on Table 4.11-33. To assess the human perception of vibration levels in PPV, the velocities are converted to RMS vibration levels based on the Caltrans Transportation and Construction Vibration Guidance Manual conversion factor of 0.71. Table 4.11-33 shows the construction vibration levels in RMS are expected to approach 0.015 in/sec (RMS) at the nearby receiver locations. Based on the vibration threshold of 0.01 in/sec, the construction-related vibration impacts are considered potentially significant at

receiver locations R2, R3, and R6. This is evaluated as a potentially significant impact prior to mitigation. (Urban Crossroads, 2019, p. 105)

**Table 4.11-33 Unmitigated Construction Equipment Vibration Levels**

| Receiver Location[1] | Distance to Const. Activity (Feet) | Receiver PPV Levels (in/sec)[2] | | | | | RMS Velocity Levels (in/sec)[3] | Threshold (RMS) | Threshold Exceeded?[4] |
|---|---|---|---|---|---|---|---|---|---|
| | | Small Bulldozer (<80k lbs) | Jack-hammer | Loaded Trucks | Large Bulldozer (>80k lbs) | Peak Vibration (PPV) | | | |
| R1 | 203' | 0.000 | 0.002 | 0.003 | 0.004 | 0.004 | 0.003 | 0.01 | No |
| R2 | 66' | 0.001 | 0.008 | 0.018 | 0.021 | 0.021 | 0.015 | 0.01 | Yes |
| R3 | 70' | 0.001 | 0.007 | 0.016 | 0.019 | 0.019 | 0.013 | 0.01 | Yes |
| R4 | 87' | 0.000 | 0.005 | 0.012 | 0.014 | 0.014 | 0.010 | 0.01 | No |
| R5 | 132' | 0.000 | 0.003 | 0.006 | 0.007 | 0.007 | 0.005 | 0.01 | No |
| R6 | 70' | 0.001 | 0.007 | 0.016 | 0.019 | 0.019 | 0.013 | 0.01 | Yes |

1. Receiver locations are shown on Figure 4.11-6.
2. Based on the Vibration Source Levels of Construction Equipment included on Table 4.11-11.
3. Vibration levels in PPV are converted to RMS velocity using a 0.71 conversion factor identified in the Caltrans Transportation and Construction Vibration Guidance Manual, September 2013.
4. Does the peak vibration exceed the maximum acceptable vibration threshold shown on Table 4.11-7?

(Urban Crossroads, 2019, Table 11-10)

***Threshold e. 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?***

Threshold applies to nearby public and private airports, if any, and the Project's land use compatibility. The closest airport is Skylark Field which is located approximately 5.7 miles southeast of the Project site. The Project site is not located within the AIA of the closest airport, Skylark Airport, and is not subject to substantial noise levels associated with airport operations. Further, the Project site is not located within an airport land use plan or within 2 miles of a public airport. The Project site would not be exposed to aircraft-related noise exceeding 55 dBA CNEL, which is considered "clearly acceptable" by the Riverside County ALUCP for residential and commercial development (ALUC, 2004, Table 2B). Accordingly, the Project would not result in the exposure of people residing or working at the Project site to excessive airport- or aircraft-related noise. Further, a review of Google Earth aerial imagery indicates that there are no private airstrips located near the Project site. Therefore, the Project does not have the potential to expose people residing or working in the Project area to excessive aircraft- or airport-related noise levels, and no impact would occur. (Urban Crossroads, 2019, p. 27; Google Earth, 2018)

## 4.11.7 Cumulative Impact Analysis

As evaluated under Threshold a., above, the highest construction noise levels at the potentially impacted receiver locations are expected to approach 80.1 dBA Lmax and would exceed the City of Lake Elsinore stationary construction equipment noise level standards for residential and semi-residential (school) uses

during temporary Project construction activities at receiver locations R1 to R6 (refer to Figure 4.11-6). However, as previously shown on EIR Figure 4.0-1, there are no other cumulative developments within close proximity to the Project site that could contribute to Project-related construction noise levels affecting nearby sensitive receptors. Accordingly, construction-related noise impacts would be less-than-cumulatively considerable.

As also evaluated under Threshold a., above, and as previously presented in Table 4.11-20, Table 4.11-21, and Table 4.11-22, Project-related traffic, when combined with ambient growth and cumulative development traffic, would not expose any sensitive receptors in the study area to traffic-related noise levels that exceed City standards. As such, Project impacts due to traffic-related noise would be less-than-cumulatively considerable.

Furthermore, although the analysis under Threshold a. identifies a significant impact due to on-site exterior and interior noise levels that would exceed City standards, these impacts represent the environment's impacts on the Project, and not the Project's impact on the environment. As such, there is no potential for cumulatively-considerable impacts due to on-site exterior or interior noise levels.

The analysis under Threshold a. also demonstrates that the noise levels associated with the roof-top air conditioning units, parking lot vehicle movements, a drive-through speakerphone, gas station activity, a car wash, and park activity are expected to range from 42.6 to 47.3 dBA $L_{50}$ at the sensitive off-site receiver locations. As previously shown in Table 4.11-30, the operational noise levels associated with the proposed Project would exceed the nighttime exterior noise level standards at receiver locations R1 to R3. However, the analysis presented in Table 4.11-31 and Table 4.11-32 shows that Project operational noise sources, when combined with ambient noise sources, would be less-than-cumulatively considerable.

The analysis under Threshold b. demonstrates that Project-related ground borne vibration and noise levels would exceed City standards at nearby sensitive receptors. However, and as previously shown in EIR Figure 4.0-1, there are no cumulative development projects within the Project vicinity that could be under construction simultaneously with the Project and that could contribute to the Project's vibration impacts. As such, Project-related vibration impacts would be less-than-cumulatively considerable.

The analysis of Threshold c. shows that the Project site would not be subject to substantial noise associated with aircraft or airport operations. The Project has no air travel component, and therefore has no potential to result in cumulatively-considerable impacts associated with aircraft- or airport-related noise.

## 4.11.8 Significance of Impacts Before Mitigation

Threshold a.: Significant Direct Impact. As shown in Table 4.11-13, the highest construction noise levels at the potentially impacted receiver locations are expected to approach 80.1 dBA Lmax and would exceed the City of Lake Elsinore stationary construction equipment noise level standards for residential and semi-residential (school) uses during temporary Project construction activities at receiver locations R1 to R6 (refer to Figure 4.11-6); this represents a direct impact of the Project.

Off-site traffic-related noise impacts would be less than significant under each scenario evaluated in the Project's NIA and TIA.

Although CEQA does not require the analysis of the environment's impact on the proposed Project, the on-site traffic-related noise analysis indicates that residential dwelling units abutting Nichols Road would be exposed to exterior noise levels exceeding the limits specified by General Plan Policy 7.1 (i.e., exterior noise level limit of 60 dBA); this is evaluated as a significant direct impact due to a conflict with General Plan Policy 7.1. Additionally, although the Lake Elsinore General Plan does not specify exterior noise standards for hotel uses, the hotel may experience interior noise levels that exceed the limits specified by General Plan Policy 7.1 (i.e., 45 dBA interior noise level-limit). Additionally, residential buildings facing Nichols Road and I-15 and the proposed hotel use would experience interior noise levels that exceed the limits specified by General Plan Policy 7.1 (i.e., 45 dBA interior noise level limit).

Furthermore, Project operational noise levels affecting sensitive off-site receiver locations are expected to range from 42.6 to 47.3 dBA $L_{50}$; as shown in Table 4.11-30, the operational noise levels associated with the proposed Project would exceed the nighttime exterior noise level standards established by General Plan Policy 7.1 (refer to Table 4.11-3) at receiver locations R1 to R3. This is evaluated as a significant impact of the proposed Project.

As previously shown on Table 4.11-31 and Table 4.11-32, the Project would contribute operational noise level increases over the existing ambient noise levels which ranging from 0.1 to 0.8 dBA $L_{50}$ during the daytime hours and nighttime hours. Since the Project-related operational noise level contributions would satisfy the significance criteria discussed in subsection 4.11.4, the increases at the sensitive receiver locations would be less than significant.

Threshold b.: Significant Direct Impact. Table 4.11-33 shows the construction vibration levels in RMS are expected to approach 0.015 in/sec (RMS) at the nearby receiver locations. Based on the vibration threshold of 0.01 in/sec, the construction-related vibration impacts are considered potentially significant at receiver locations R2, R3, and R6. This is evaluated as a potentially significant impact prior to mitigation. No impacts due to ground borne vibration or noise would occur in association with long-term Project operations, as the Project would not generate a substantial number of heavy trucks, and vibration from any trucks visiting the site would not extend beyond the roadway right-of-way as all roadways on site would consist of smooth surfaces.

Threshold c.: No Impact. The closest airport is Skylark Field which is located approximately 5.7 miles southeast of the Project site. The Project site is not located within the AIA of the closest airport, Skylark Airport, and is not subject to substantial noise levels associated with airport operations. Further, the Project site is not located within an airport land use plan or within 2 miles of a public airport. The Project site would not be exposed to aircraft-related noise exceeding 55 dBA CNEL, which is considered "clearly acceptable" by the Riverside County ALUCP for residential and commercial development (ALUC, 2004, Table 2B). Accordingly, the Project would not result in the exposure of people residing or working at the Project site to excessive airport- or aircraft-related noise, and no impact would occur.

## 4.11.9 CITY REGULATIONS, DESIGN REQUIREMENTS, AND MITIGATION

### *City Regulations and Design Standards*

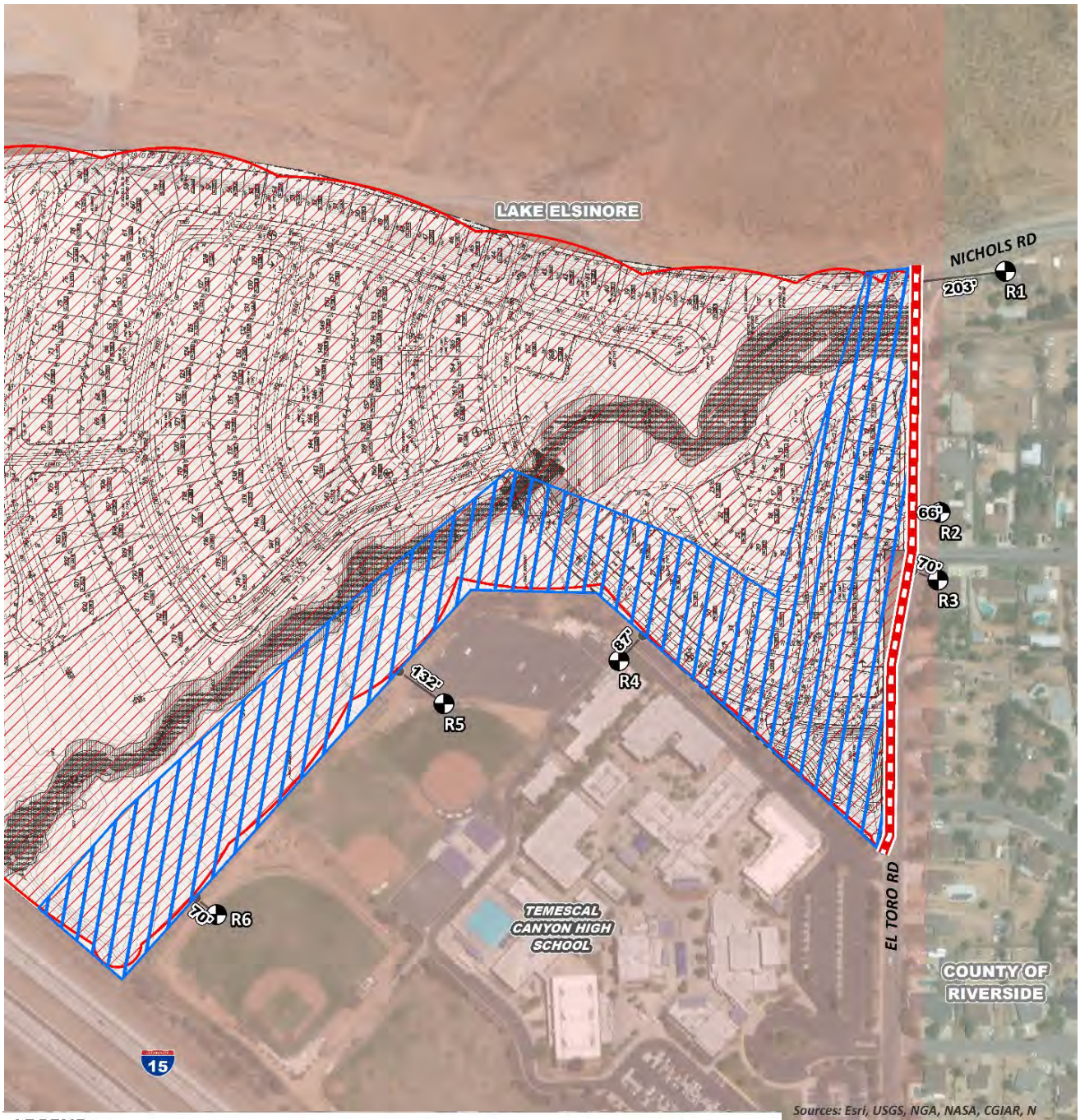
The following are applicable regulations and design requirements within the City of Lake Elsinore. Although these requirements technically do not meet CEQA's definition for mitigation, they are imposed herein to ensure Project compliance with applicable City regulations and design requirements.

- Future residents and tenants of the proposed Project would be subject to applicable provisions of Chapter 11.176, *Noise Control*, of the Lake Elsinore Municipal Code, which was adopted to control unnecessary, excessive, and annoying noise and vibration in the City.

### *Mitigation*

MM 4.11-1 Prior to the issuance of grading permits affecting areas on site that are located within 700 feet of the existing residential uses located east of El Toro Road/Wood Mesa Court, and prior to issuance of building permits for Phase 1 of the proposed Project, the City of Lake Elsinore shall ensure that the grading plans and building plans (as appropriate) include the following notes. Project contractors shall be required to ensure compliance with the notes and permit periodic inspection of the construction site by City of Lake Elsinore staff or its designee to confirm compliance. These notes also shall be specified in bid documents issued to prospective construction contractors.

- *"During construction activities that could expose nearby sensitive receptors (i.e., existing residential uses located along El Toro Road/Wood Mesa Court) to excessive construction-related noise, minimum 10-foot high temporary noise barriers shall be erected at the eastern limits of construction activities, as shown on Figure 4.11-8, Construction Noise Mitigation Measures, of the Nichols Ranch Specific Plan Environmental Impact Report (SCH No. 2018051051). Construction activities that could expose nearby sensitive receptors to excessive noise levels include any activities associated with the following construction phases that occur within the buffer distances described below:*
  - *Site preparation activities within 250 feet of the existing residential homes located along El Toro Road/Wood Mesa Court;*
  - *Mass and fine grading activities within 700 feet of the existing residential homes located along El Toro Road/Wood Mesa Court;*
  - *Building construction activities within 300 feet of the existing residential homes located along El Toro Road/Wood Mesa Court;*
  - *Paving activities within 500 feet of the existing residential homes located along El Toro Road/Wood Mesa Court; and*
  - *Architectural coating activities within 250 feet of the existing residential homes located along El Toro Road/Wood Mesa Court.*




Source(s): Urban Crossroads (08-28-2018)

Figure 4.11-8

NOT TO SCALE

## CONSRUCTION NOISE MITIGATION MEASURES

*The noise control barriers shall remain in place during any construction activities for the above-described construction phases within the buffer distance shown. The noise control barriers shall have a solid face from top to bottom. The noise control barriers must meet the minimum height and be constructed as follows:*

- *The temporary noise barriers shall provide a minimum transmission loss of 20 dBA (per the Federal Highway Administration Noise Barrier Design Handbook). The noise barriers shall be constructed using an acoustical blanket (e.g., vinyl acoustic curtains or quilted blankets) attached to the construction site perimeter fence or equivalent temporary fence posts;*
- *The noise barrier must be maintained and any damage promptly repaired. Gaps, holes, or weaknesses in the barrier or openings between the barrier and the ground shall be promptly repaired; and*
- *The noise control barrier and associated elements shall be completely removed and the site appropriately restored upon the conclusion of the construction activity.*

MM 4.11-2 Prior to the issuance of grading or building permits affecting the portions of the site located south of Stovepipe Creek, the City of Lake Elsinore shall ensure that the grading or building plans include the following note. Project contractors shall be required to ensure compliance with the note and permit periodic inspection of the construction site by City of Lake Elsinore staff or its designee to confirm compliance. This note also shall be specified in bid documents issued to prospective construction contractors.

- *During all phases of construction within on-site areas located south of Stovepipe Creek, large loaded trucks and mobile equipment greater than or equal to 80,000 pounds shall be prohibited. Instead, smaller, rubber-tired mobile equipment (less than 80,000 pounds) or equivalent alternative equipment shall be used in these areas. As an exception, equipment heavier than 80,000 pounds may be utilized for the area shown on Figure 4.11-8, Construction Noise Mitigation Measures, of the Nichols Ranch Specific Plan Environmental Impact Report (SCH No. 2018051051) as being located at a distance greater than 300 feet from Sensitive Receiver Locations R1 through R6. In such a case, orange construction fencing shall be erected delineating those areas within 300 feet of Sensitive Receiver Locations R1 through R6 to ensure that equipment heavier than 80,000 pounds does not encroach into the required 300-foot buffer zone.*

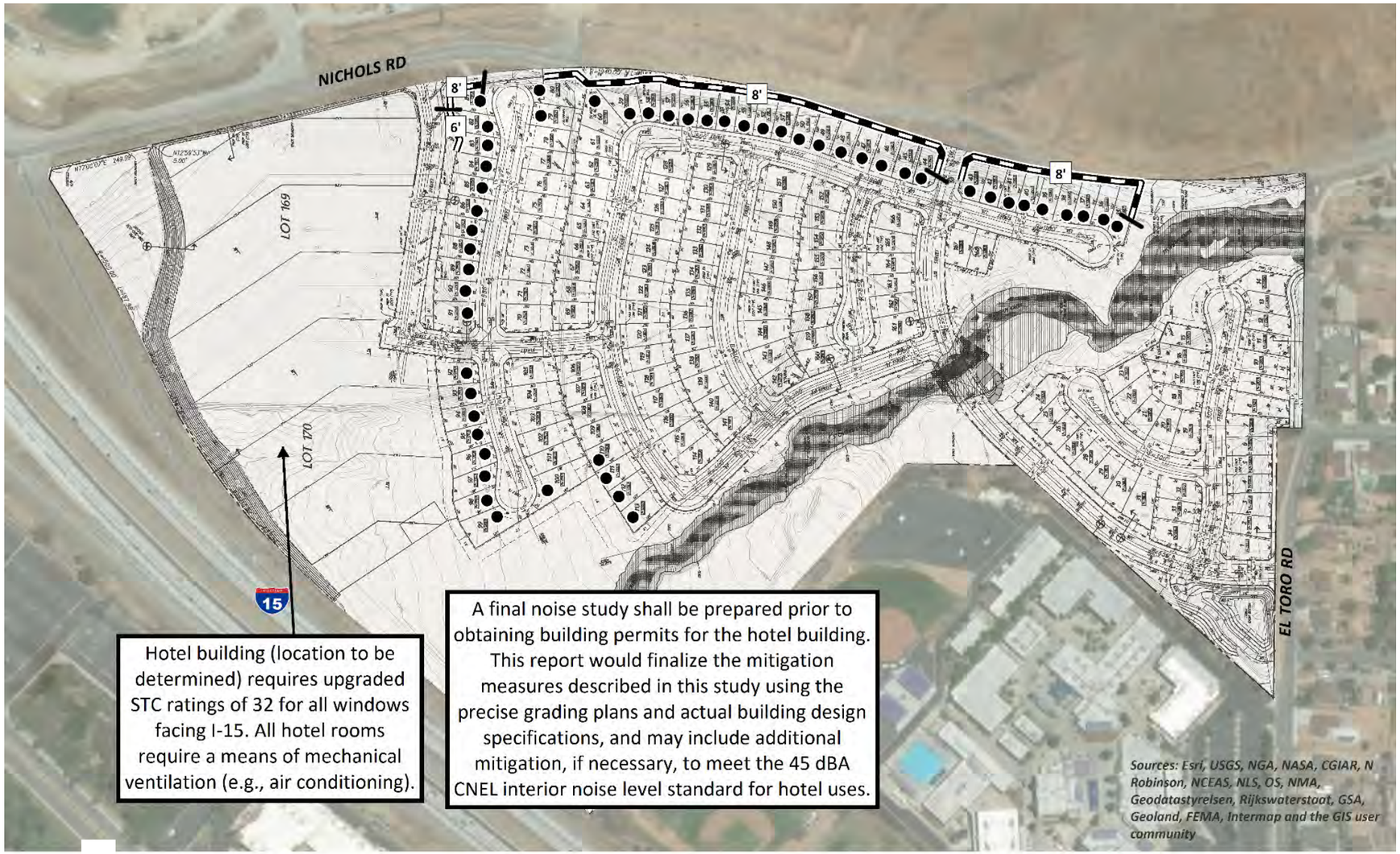
MM 4.11-3 Prior to the issuance of any grading permits or building permits, the City of Lake Elsinore shall ensure that the grading plans and building plans include the following notes. Project contractors shall be required to ensure compliance with the notes and permit periodic inspection of the construction site by City of Lake Elsinore staff or its designee to confirm compliance. These notes also shall be specified in bid documents issued to prospective construction contractors.

- *During all Project site construction, the construction contractors shall equip all construction equipment, fixed or mobile, with properly operating and maintained mufflers, consistent with manufacturers' standards.*
- *The construction contractor shall place all stationary construction equipment so that emitted noise is directed away from the noise sensitive receivers nearest the Project site.*
- *The construction contractor shall locate equipment staging in areas that will create the greatest distance between construction-related noise sources and noise-sensitive receivers nearest the Project site (i.e., to the northwest or northern center) during all Project construction.*
- *The construction contractor shall design delivery routes to minimize the exposure of sensitive land uses or residential dwellings to delivery truck-related noise.*

MM 4.11-4 Prior to the issuance of occupancy permits for Lots 35 to 60 or Lots 80 to 83 of Tentative Tract Map No. 37305, the City of Lake Elsinore shall ensure that noise-attenuation barriers have been constructed in the locations and at the heights shown on Figure 4.11-9, *On-Site Traffic Noise Mitigation Measures*, of the Nichols Ranch Specific Plan Environmental Impact Report (SCH No. 2018051051). As shown on Figure 4.11-9, eight-foot tall noise-attenuation barriers shall be constructed along Nichols Road (i.e., at the northern lot lines of Lots 35 to 60 and Lots 80 to 81) and the western lot line of Lot 81, and six-foot tall noise-attenuation barriers shall be constructed at the western lot lines of Lots 82 and 83. The recommended noise control barriers shall be constructed so that the top of each wall and/or berm combination extends to the recommended height above the pad elevation of the lot it is shielding. When the road is elevated above the pad elevation, the barrier shall extend to the recommended height above the highest point between the residential home and the road. The barrier shall provide a weight of at least 4 pounds per square foot of face area with no decorative cutouts or line-of-sight openings between shielded areas and the roadways, and a minimum transmission loss of 20 dBA. The noise barrier shall be constructed using the following materials:

- Masonry block;
- Stucco veneer over wood framing (or foam core), or 1-inch-thick tongue and groove wood of sufficient weight per square foot;
- Glass (1/4-inch-thick), or other transparent material with sufficient weight per square foot capable of providing a minimum transmission loss of 20 dBA;
- Earthen berm; or
- Any combination of these construction materials

The barrier shall consist of a solid face from top to bottom. Unnecessary openings or decorative cutouts shall not be made. All gaps (except for weep holes) should be filled with grout or caulking.




**LEGEND:**

8' Recommended Noise Barrier Height (in feet)  Recommended Noise Barrier

● Lots requiring standard windows and glass doors with a minimum STC rating of 27 and a means of mechanical ventilation (e.g. air conditioning).

Source(s): Urban Crossroads (08-28-2018)

Figure 4.11-9

NOT TO SCALE

**ON-SITE TRAFFIC NOISE MITIGATION MEASURES**

MM 4.11-5 Prior to the issuance of building permits for Lots 35 to 60, Lots 79 to 100, or Lots 110 to 113 of Tentative Tract Map No. 37305, and prior to issuance of building permits for the proposed hotel use, the City of Lake Elsinore shall ensure that the following noise abatement measures are included in the building plans:

- Windows & Glass Doors: All windows and/or glass doors shall be well-fitted, well weather-stripped assemblies and shall have a minimum, standard sound transmission class (STC) ratings as follows:
  - Minimum STC ratings of 27 for all windows and/or glass doors at residential lots 35 to 60, 79 to 100, and 110 to 113.
  - Minimum upgraded STC ratings of 32 for all hotel building windows and/or glass doors facing I-15.
- Doors: All exterior doors shall be well weather-stripped and have minimum STC ratings of 27. Well-sealed perimeter gaps around the doors are essential to achieve the optimal STC rating.
- Walls: At any penetrations of exterior walls by pipes, ducts, or conduits, the space between the wall and pipes, ducts, or conduits shall be caulked or filled with mortar to form an airtight seal.
- Residential Roofs: Roof sheathing of wood construction shall be per manufacturer's specifications or caulked plywood of at least one-half inch thick. Ceilings shall be per manufacturer's specifications or well-sealed gypsum board of at least one-half inch thick. Insulation with at least a rating of R-19 shall be used in the attic space.
- Ventilation: Arrangements for any habitable room shall be such that any exterior door or window can be kept closed when the room is in use and still receive circulated air. A forced air circulation system (e.g. air conditioning) or active ventilation system (e.g. fresh air supply) shall be provided which satisfies the requirements of the Uniform Building Code.

MM 4.11-6 Prior to issuance of building permits for the proposed hotel use, a final noise study shall be prepared to finalize the mitigation measures identified in Mitigation Measure MM 4.11-5 using the precise grading plans and actual building design specifications, and shall include modified or supplemental mitigation, if necessary, to meet the City of Lake Elsinore 45 dBA CNEL interior noise level standard for hotel uses.

MM 4.11-7 As a condition of the occupancy permit for the proposed gas station use, operating hours for the car wash shall be specified as permitted between 7:00 a.m. to 10:00 p.m. and prohibited between 10:00 p.m. to 7:00 a.m. Permanent, durable, weather-proof signs shall be posted at the gas station in the location of the car wash entry drive clearly indicating the car wash hours of operation as 7:00 a.m. to 10:00 p.m. The City of Lake Elsinore shall verify that the signs are posted prior to the issuance of the gas station occupancy permit. The City's Code Enforcement Division shall be responsible for enforcing the hours of operation.

## 4.11.10 SIGNIFICANCE OF IMPACTS AFTER MITIGATION

Threshold a: Less-than-Significant Impact with Mitigation Incorporated. Mitigation Measures MM 4.11-1 through MM 4.11-3 have been identified to reduce the Project's construction-related noise impacts at nearby sensitive receptors. The construction noise analysis presents a conservative approach with the highest noise-level-producing equipment for each stage of Project construction operating at the closest point from primary construction activity to the nearby sensitive receiver locations. This scenario is unlikely to occur during typical construction activities and likely overstates the construction noise levels which will be experienced at each receiver location. With implementation of Mitigation Measures MM 4.11-1 through MM 4.11-3, and as shown on Figure 4.11-8, Table 4.11-34, *Mitigated Construction Equipment Noise Level Compliance*, shows the highest construction noise levels at the potentially impacted receiver locations would be reduced to a range from 59.2 to 66.9 dBA Lmax with the attenuation provided by the temporary construction noise barriers and the 300-foot buffer for large construction equipment (i.e., equipment greater than or equal to 80,000 pounds). As shown on Table 4.11-34, the temporary construction noise mitigation measures would reduce the construction noise levels at the impacted receiver locations to satisfy the 60 dBA Lmax residential and 70 dBA Lmax semi-residential significance thresholds during temporary Project construction activities. Therefore, with implementation of the required mitigation, the Project's noise impact due to Project construction would be reduced to less-than-significant levels. The temporary construction noise barrier attenuation calculations are provided in Appendix 11.1 of the Project's NIA (*Technical Appendix J*). Appendix 11.2 of the Project's NIA includes example photographs of temporary noise barrier installations for reference. (Urban Crossroads, 2019, p. 102)

**Table 4.11-34 Mitigated Construction Equipment Noise Level Compliance**

| Receiver Location[1] | Land Use Category | Unmitigated Construction Noise Levels (dBA $L_{max}$)[2] | Large Mobile Equipment (> 80,000 lbs) Buffer Attenuation | Temporary Noise Barrier Attenuation | Mitigated Construction Noise Levels (dBA $L_{max}$) | Threshold[3] | Threshold Exceeded?[4] |
|---|---|---|---|---|---|---|---|
| R1 | Single-Family Residential | 70.3 | -3.4 | -7.1 | 59.8 | 60 | No |
| R2 | Single-Family Residential | 80.1 | -13.2 | -7.7 | 59.2 | 60 | No |
| R3 | Single-Family Residential | 79.5 | -12.6 | -7.6 | 59.3 | 60 | No |
| R4 | Semi-Residential/ Commercial | 77.7 | -10.8 | 0.0 | 66.9 | 70 | No |
| R5 | Semi-Residential/ Commercial | 74.0 | -7.1 | 0.0 | 66.9 | 70 | No |
| R5 | Semi-Residential/ Commercial | 79.5 | -12.6 | 0.0 | 66.9 | 70 | No |

1 Noise receiver locations are shown on Figure 4.11-6.
2 Estimated construction noise levels during peak operating conditions, as shown on Table 4.11-12.
3 Construction noise standards as shown on Table 4.11-6 for construction lasting greater than 10 days.
4 Do the estimated Project construction noise levels meet the construction noise level thresholds?
(Urban Crossroads, 2019, Table 11-9)

With the recommended noise barriers shown on Figure 4.11-9 and required by Mitigation Measure MM 4.11-4, the future on-site exterior noise levels would range from 54.8 to 59.9 dBA CNEL at the outdoor living areas of single-family residential homes, as previously shown on Table 4.11-23. As shown in Table 4.11-23, the

recommended noise barriers would ensure that the City of Lake Elsinore 60 dBA CNEL exterior noise level standards for residential land use is satisfied at all residential lots within the Project. The effective noise barrier height recommendations represent the minimum wall and/or berm combination height required to satisfy the City of Lake Elsinore exterior noise level standards. Thus, with implementation of Mitigation Measure MM 4.11-4, Project impacts due to exterior noise levels that exceed the City's standards would be reduced to less-than-significant levels.

As shown in Table 4.11-24 through Table 4.11-27, with standard windows and/or glass doors with a minimum sound transmission class (STC) rating of 27 (as required by Mitigation Measure MM 4.11-5), and with construction of the noise barriers required by Mitigation Measure MM 4.11-4, the interior noise levels for Lots 35 to 60, 79 to 100, and 110 to 113 of Tentative Tract Map No. 37305 would satisfy the City of Lake Elsinore 45 dBA CNEL interior noise level standard. Therefore, with implementation of the required mitigation, impacts due to residential interior noise levels that exceed the City's standards would be reduced to less-than-significant levels.

Hotel first through fourth floor windows would require upgraded STC ratings of 32 for all windows and/or glass doors facing I-15, as required by Mitigation Measure MM 4.11-5. The interior noise analysis shows that with the recommended interior noise mitigation measures, the Project would satisfy the City of Lake Elsinore 45dBA CNEL interior noise level standard. However, because precise building and site plans for the hotel use are not currently available, Mitigation Measure MM 4.11-6 has been imposed to require a final noise study that demonstrates that the hotel use would meet the City's interior noise standard of 45 dBA CNEL and/or that includes additional or modified mitigation to ensure the standard can be met. Accordingly, with implementation of the required mitigation, interior noise impacts associated with the proposed hotel use would be reduced to less-than-significant levels.

Implementation of Mitigation Measure MM 4.11-7 would prohibit nighttime operation of the car wash at the proposed gas station. Table 10-4 of the Project's NIA (*Technical Appendix J*) shows the mitigated Project operational noise levels would range from 25.5 to 38.6 dBA Leq without the car wash activities. Table 4.11-35, *Mitigated Operational Noise Level Compliance*, shows the mitigated operational noise levels associated with the Project would satisfy the exterior noise level standards at all nearby sensitive receiver locations with implementation of Mitigation Measure MM 4.11-7. Therefore, the Project's operational noise levels would not exceed City standards at nearby sensitive receptors following mitigation and the Project's impacts would therefore be reduced to less-than-significant levels.

Threshold b.: Less-than-Significant Impact with Mitigation Incorporated. Mitigation Measure MM 4.11-2 prohibits the use of construction equipment greater than or equal to 80,000 pounds within 300 feet of nearby sensitive receptor locations, and would serve to reduce the Project's vibration impacts affecting nearby sensitive receptors. As shown in Table 4.11-36, *Mitigated Construction Equipment Vibration Levels*, the mitigated vibration levels for loaded trucks and large mobile equipment would be reduced to approximately 0.002 in/sec RMS and would be reduced below the 0.01 in/sec RMS threshold at all receiver locations. Therefore, Project construction-related vibration levels would be reduced to less-than-significant levels with implementation of Mitigation Measure MM 4.11-2.

## Table 4.11-35 Mitigated Operational Noise Level Compliance

| Receiver Location[1] | Land Use | Mitigated Noise Level at Receiver Locations (dBA)[2] | | | | | Threshold Exceeded?[3] | |
|---|---|---|---|---|---|---|---|---|
| | | $L_{50}$ (30 mins) | $L_{25}$ (15 mins) | $L_8$ (5 mins) | $L_2$ (1 min) | $L_{max}$ (Anytime) | Daytime | Nighttime |
| Exterior Noise Level Standards | Single-Family Residential | 50 | 55 | 60 | 65 | 70 | - | - |
| | | 40 | 45 | 50 | 55 | 60 | - | - |
| | Public Space/ Commercial | 60 | 65 | 70 | 75 | 80 | - | - |
| | | 55 | 60 | 65 | 70 | 75 | - | - |
| R1 | SFR | 28.1 | 30.4 | 33.0 | 35.6 | 42.2 | No | No |
| R2 | SFR | 29.2 | 31.5 | 34.1 | 36.7 | 43.0 | No | No |
| R3 | SFR | 25.5 | 27.8 | 30.0 | 32.3 | 41.1 | No | No |
| R4 | School | 31.7 | 34.0 | 36.6 | 39.1 | 45.6 | No | No |
| R5 | School | 34.1 | 36.4 | 39.0 | 41.5 | 47.7 | No | No |
| R6 | School | 38.6 | 41.0 | 43.7 | 46.3 | 51.6 | No | No |

1 See Figure 4.11-7 for the receiver and noise source locations.
2 Estimated Project operational noise levels as shown on Table 4.11-29.
3 Do the Project operational noise levels satisfy the operational noise level standards (Table 4.11-3)?
"Daytime" = 7:00 a.m. to 10:00 p.m.; "Nighttime" = 10:00 p.m. to 7:00 a.m.; “SFR” = Single-Family Residential
(Urban Crossroads, 2019, Table 10-5)

## Table 4.11-36 Mitigated Construction Equipment Vibration Levels

| Receiver Location[1] | Distance to Const. Activity (Feet) | Mitigated Receiver PPV Levels (in/sec)[2] | | | Mitigated RMS Levels (in/sec)[3] | Threshold (RMS) | Threshold Exceeded?[4] |
|---|---|---|---|---|---|---|---|
| | | Loaded Trucks | Large Bulldozer (>80k lbs) | Peak Vibration (PPV) | | | |
| R1 | 300' | 0.002 | 0.002 | 0.002 | 0.002 | 0.01 | No |
| R2 | 300' | 0.002 | 0.002 | 0.002 | 0.002 | 0.01 | No |
| R3 | 300' | 0.002 | 0.002 | 0.002 | 0.002 | 0.01 | No |
| R4 | 300' | 0.002 | 0.002 | 0.002 | 0.002 | 0.01 | No |
| R5 | 300' | 0.002 | 0.002 | 0.002 | 0.002 | 0.01 | No |
| R6 | 300' | 0.002 | 0.002 | 0.002 | 0.002 | 0.01 | No |

1. Receiver locations are shown on Figure 4.11-6.
2. Based on the Vibration Source Levels of Construction Equipment included on Table 4.11-11.
3. Vibration levels in PPV are converted to RMS velocity using a 0.71 conversion factor identified in the Caltrans Transportation and Construction Vibration Guidance Manual, September 2013.
4. Does the peak vibration exceed the maximum acceptable vibration threshold shown on Table 4.11-7?

(Urban Crossroads, 2019, Table 11-11)

# 4.12 PALEONTOLOGICAL RESOURCES

The analysis in this Subsection is based on a Project-specific Paleontological Resource and Monitoring Assessment Report titled "Paleontological Resource and Monitoring Assessment, Nichols Ranch Specific Plan Project, City of Lake Elsinore, Riverside County, California" (dated April 26, 2018). The report was prepared by Brian F. Smith and Associates, Inc. (BFSA) and is included as *Technical Appendix K* to this EIR.

## 4.12.1 EXISTING CONDITIONS

### *A. Existing Site Conditions*

As shown on Figure 2-4 in Subsection 2.0, under existing conditions the Project site is mainly vacant. The northern 45.4 acres of the Project site are currently undergoing reclamation activities, pursuant to Amendment No. 2 to Reclamation Plan 2006-01 (Reclamation Plan 2006-01A2). Reclamation activities include grading and benching of slopes subject to mining, implementation of erosion control measures, and restoration of the site to a more natural appearance. Additionally, the Project site is traversed by Stovepipe Creek, which generally crosses the site in a northeast-to-southwest orientation.

The southern 27.1 acres of the Project site is mainly vacant and undeveloped. The southwest portion of the site contains Stovepipe Creek, which traverses the site in a northeast-to-southwest orientation.

### *B. Paleontological Setting*

This section is based on a field study and a Paleontological Resource and Monitoring Assessment (PRMA) prepared by BFSA and provided as EIR *Technical Appendix K*. As described in the PRMA, the geology of the Project area is primarily underlain with young Quaternary (Holocene and late Pleistocene) sandy alluvial fan sediments. Protruding through the young sediments are two (2) hills, one of which is composed of Mesozoic phyllite (Mzp, a metamorphic rock) at the west end of the property, and the second, which is composed of undifferentiated Mesozoic low- to high-grade metasedimentary rocks (Mzu) near Nichols Road in the northeast part of the property. (BFSA, 2018b, p. 1)

### *C. Paleontological Sensitivity*

As part of the Paleontological Resource and Monitoring Assessment, BFSA conducted a review of geologic reports and a paleontological sensitivity map. The paleontological sensitivity map obtained from the Riverside County Land Information System (RCLIS) ranked the entire Project site as having a "Low Potential/Sensitivity" to yield nonrenewable paleontological resources. Areas ranked as having a "Low" or "Undetermined" paleontological resource potential are required to undergo a paleontological evaluation (literature search, records check, field survey, and determination by a qualified paleontologist) before they are accepted as having a "Low potential for containing significant paleontological resources subject to adverse impacts," and, therefore, are normally exempt from further mitigation. (BFSA, 2018b, p. 2)

### *D. Paleontological Survey*

As part of the Paleontological Resource and Monitoring Assessment, BFSA conducted a field survey of the Project area in mid-February 2017. According to the survey, there were no surface-exposed fossils or

fossiliferous sedimentary units observed or encountered within the Project site. Holocene alluvial deposits in stream bottoms and along dry washes across the property are geologically too young to contain paleontological resources and are typically accorded a "Low Potential" for containing significant paleontological resources. Furthermore, two (2) museum collections and records searches of areas near the Project vicinity did not reveal any reported fossil localities or recorded fossiliferous sediments within several miles of the Project site. (BFSA, 2018b, p. 2)

## 4.12.2 APPLICABLE ENVIRONMENTAL REGULATIONS

The following is a brief description of the federal, state, and local environmental laws and related regulations related to paleontological resources.

### *A. Federal Regulations*

#### *1. Paleontological Resources Preservation Act*

The Paleontological Resources Preservation Act (PRPA) was signed into law on March 30, 2009 (Public Law 111-11, Title VI, Subtitle D; 16 U.S.C. §§ 470aaa – 470aaa-11). PRPA directs the Department of Agriculture (U.S. Forest Service) and the Department of the Interior (National Park Service, Bureau of Land Management, Bureau of Reclamation, and Fish and Wildlife Service) to implement comprehensive paleontological resource management programs. Section 6310 of PRPA specifically states, "As soon as practical after the date of enactment of this Act, the Secretary shall issue such regulations as are appropriate to carry out this subtitle, providing opportunities for public notice and comment." (NPS, 2017b)

### *B. State Regulations*

#### *1. California Administrative Code, Title 14, Section 4308*

Section 4308, *Archaeological Features*, of Title 14 of the California Administrative Code provides that: "No person shall remove, injure, disfigure, deface, or destroy any object of archaeological, or historical interest or value."

#### *2. California Public Resources Code*

Public Resources Code § 5097.5 states that "A person shall not knowingly and willfully excavate upon, or remove, destroy, injure, or deface, any historic or prehistoric ruins, burial grounds, archaeological or vertebrate paleontological site, including fossilized footprints, inscriptions made by human agency, rock art, or any other archaeological, paleontological or historical feature, situated on public lands, except with the express permission of the public agency having jurisdiction over the lands." Public Resources Code § 30244 states that, "Where development would adversely impact archaeological or paleontological resources as identified by the State Historic Preservation Officer, reasonable mitigation measures shall be required."

### *C. Local Regulations*

#### *1. City of Lake Elsinore General Plan*

The City of Lake Elsinore General Plan, Chapter 4, *Resource Protection and Preservation*, addresses resource protection and preservation issues related to biological resources, open space, water resources, cultural and

paleontological resources, and aesthetics resources. Section 4.6.8, *Cultural and Paleontological Resource Goals, Policies, and Implementation Programs*, and Section 4.7.3, *Historical Preservation Goals, Policies and Implementation Programs*, details policies, implementation programs, and responsible agencies and departments in support of the following goals regarding cultural resources: (Lake Elsinore, 2011a)

- Goal 6: Preserve, protect, and promote the cultural heritage of the City and surrounding region for the education and enjoyment of all City residents and visitors, as well as for the advancement of historical and archaeological knowledge.
- Goal 7: Support state-of-the-art research designs and analytical approaches to archaeological and cultural resource investigations while also acknowledging the traditional knowledge and experience of the Native American tribes regarding Native American culture.
- Goal 9: Assure the recognition of the City's heritage through preservation of the City's significant historical sites and structures.
- Goal 10: Encourage the preservation, protection, and restoration of historical and cultural resources.

## 4.12.3 Basis of Determining Significance

The proposed Project would result in a significant impact to paleontological resources if the Project or any Project-related component would:

*a. Directly of indirectly destroy a unique paleontological resource, or site, or unique geologic feature.*

The above-listed threshold is derived directly from Section VII of Appendix G to the CEQA Guidelines and addresses typical adverse effects to paleontological resources (OPR, 2018).

## 4.12.4 Impact Analysis

| ***Threshold a:*** | ***Would the Project directly or indirectly destroy a unique paleontological resource, or site, or unique geologic feature?*** |
|---|---|

According to the Riverside County Land Information System, the Project site has "Low Potential" to yield nonrenewable paleontological resources. A field survey conducted by BFSA did not identify any fossils or sedimentary rock types that might have yielded any fossiliferous remains. In addition, based on the metamorphic and late Quaternary young alluvial fan sediments across the entire Project site, there is a minimal likelihood that any fossiliferous deposits would be present within the Project site. Based on the foregoing, the Project would not directly nor indirectly destroy a unique paleontological resource, or site, or unique geologic feature; therefore, impacts would be less than significant.

## 4.12.5 Cumulative Impact Analysis

This cumulative impact analysis considers development of the proposed Project in conjunction with other development projects and planned development in the vicinity of the Project site.

As discussed above under Threshold a., the proposed Project has "Low Potential" to impact paleontological resources that may be buried beneath the ground surface of the Project site. The Project site is underlain with metamorphic and late Quaternary young alluvial fan sediments across the entire site, which indicates a low likelihood that fossiliferous deposits of any sort would be present within the Project site and its surrounding areas. Thus, the Project would not result in a cumulatively-considerable impact to paleontological resources, and impacts would be less than significant.

## 4.12.6 Significance of Impact Before Mitigation

Threshold a: Less-than-Significant Impact. The Project site has a "Low Potential" to yield nonrenewable paleontological resources. There were no surface-exposed fossils or fossiliferous sedimentary units found during the field survey conducted by BFSA. In addition, the metamorphic and late Quaternary young alluvial fan sediments across the entire Project site indicates a low likelihood that any fossiliferous deposit would be present within the Project area and its surrounding areas. Thus, the Project would not impact any known paleontological resource or unique geological feature. Impacts would be less than significant.

## 4.12.7 City Regulations, Design Requirements, and Mitigation

Impacts would be less than significant; therefore, mitigation is not required.

# 4.13 Population and Housing

The following analysis discloses existing population and housing data from for the City of Lake Elsinore and assesses the potential for impacts on population and housing associated with implementation of the Project. The analysis in this Subsection is based on information contained in the City of Lake Elsinore General Plan (Lake Elsinore, 2011a).

## 4.13.1 Existing Conditions

The Project site consists of undeveloped land and does not contain previously built residential or commercial structures. Currently, the Project site does not contain or support a population. The northern portion of the Project site is undergoing reclamation and has employees; however, these employees would cease work on-site following reclamation pursuant to Reclamation Plan No. 2006-01A2. As previously depicted on Figure 2-4, *Aerial Photograph*, the site is bound by a mixture of existing residential developments, commercial uses, a school, an active mining operation, undeveloped land, and open space.

### *A. Population Projections*

The Project site is located within the City of Lake Elsinore in the County of Riverside. According to the City of Lake Elsinore General Plan Housing Element, in the year 2010, the City of Lake Elsinore housed a total population of approximately 51,138 persons. This value reflected an increase of 77% from the recorded population in the year 2000. The City of Lake Elsinore Housing Element estimates that by year 2020, the population of the City of Lake Elsinore will increase to approximately 36% from the year 2010. (Lake Elsinore, 2013, pp. 6-7)

The projected population for the year 2035 for the City of Lake Elsinore is estimated to be 92,438 persons, representing an increase of approximately 81% as compared to the year 2010. Refer to Table 4.13-1, *Lake Elsinore Regional Growth Forecast*, for a depiction of population increases in the City of Lake Elsinore.

**Table 4.13-1 Lake Elsinore Regional Growth Forecast**

| | *2000* | *2005* | *2010* | *2015* | *2020* | *2025* | *2030* | *2035* |
|---|---|---|---|---|---|---|---|---|
| ***Population*** | 28,928 | 39,856 | 51,138 | 61,045 | 69,558 | 78,044 | 85,376 | 92,438 |
| ***Housing*** | 9,505 | 12,716 | 16,429 | 19,566 | 22,792 | 25,922 | 28,704 | 31,117 |
| ***Jobs*** | N/A* | 10,508 | 12,152 | 13,525 | 15,006 | 16,487 | 18,012 | 19,297 |

*Value not included in reference source.
(WRCOG, 2008)

## 4.13.2 Applicable Environmental Regulations

### *A. City of Lake Elsinore Housing Element*

The City of Elsinore General Plan No. 2011-071 includes a Housing Element, which identifies and establishes the City's policies with respect to meeting the needs of existing and future residents in the City of Lake Elsinore. The Housing Element contains policies designed to meet the housing needs of the City based on current and projected statistics. State law requires that each jurisdiction evaluate its Housing Element every

five years to determine its effectiveness in achieving City and State goals and objectives, and to adopt an updated Housing Element that reflects the results of this evaluation.

### *B. SCAG Regional Comprehensive Plan*

The Southern California Association of Governments (SCAG) is a joint powers authority (JPA) under California state law, established as an association of local governments and agencies that convene as a forum to address regional issues. In 2008, SCAG released the Regional Comprehensive Plan (RCP) which created advisory plan that addressed important regional issues like housing, traffic/transportation, water, and air quality. The RCP serves as an advisory document to local agencies in southern California to aid in the preparation of local plans and handling local issues of regional significance.

### *C. SCAG Regional Transportation Plan/Sustainable Communities Strategy*

In April 2016, SCAG released the Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) to create a plan for defining and solving regional problems including housing, traffic, water, air quality, and other regional challenges. The RTP/SCS builds upon the elements of existing local general plans and provides a blueprint for where and how the Southern California area will grow.

## 4.13.3 Basis for Determining Significance

The proposed Project would result in a significant impact to population and housing if the Project or any Project-related component would:

a. *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); or*

b. *Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere.*

The above listed thresholds are derived directly from Section XIV of Appendix G to the CEQA Guidelines and address typical adverse effects to population and housing (OPR, 2018).

## 4.13.4 Impact Analysis

| | |
|---|---|
| ***Threshold a:*** | ***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)?*** |

As with any residential development, the construction of new homes is considered a pull-factor or lure for new homeowners from outside the area, thereby having the potential to directly induce growth. The northern 45.4 acres of the Project site are designated by the Alberhill Ranch Specific Plan for "Commercial – Specific Plan" land uses, while the southern portions of the site are designated by the City's General Plan for "General Commercial" land uses. The Project proposes to change the Project site's existing land use designations to allow for the development of 168 single-family homes, 14.5 acres of commercial retail uses, open space, and

recreational uses. Under existing General Plan land use designations, the Project site would not be expected to generate a residential population and would be expected to generate approximately 1,594 employees within the City (72.5 acres x 21.98 employees per acre = 1,594 employees) (SCAG, 2001, Table 2A). Implementation of the proposed Project would result in a future population of approximately 628 residents (168 dwelling units x 3.74 persons per household = 628 future residents) and approximately 319 employees (14.5 acres x 21.98 jobs per acre = 319 jobs) (SCAG, 2001, Table 2A; USCB, 2016).

At the time the General Plan EIR was certified in 2011, the northern 45.4 acres of the Project site were located in within the City of Lake Elsinore, while the southern 27.1 acres were located within Riverside County. The southern 27.1 acres of the Project site was annexed into the City of Lake Elsinore on November 10, 2016 (Annexation No. 83) (RLAFCO, 2016). Thus, the projected employment increases on the southern 27.1 acres of the Project site were not included as part of the City of Lake Elsinore General Plan's estimates. Thus, the Project would result in 679 fewer employees than was evaluated in the City of Lake Elsinore General Plan EIR for the Project site, only including the northern 45.4 acres of the Project site. The Project would result in an additional 628 residents than was anticipated by the maximum buildout scenario evaluated in the City of Lake Elsinore General Plan EIR for the entire Project site, including the northern 45.4 acres and the southern 27.1 acres, because residential uses were not evaluated for the northern or southern portions of the Project site. The proposed Project would result in an increase in population growth and a reduction in jobs as compared to what is already anticipated and approved for on-site. The addition of 628 residents under the proposed Project would result in a 0.98% population increase within the City of Lake Elsinore (628 / 64,205 residents [in 2016] x 100 = 0.98). (USCB, 2016)

The proposed Project would not result in substantial population growth to the area. The expected population is 628 persons greater than was anticipated on the property by the current City of Lake Elsinore General Plan. However, as noted above, the increase of 628 residents on the Project site represents a minor increase of 0.98% population increase within Lake Elsinore. Thus, although the projected population of the proposed Project is greater than the City's population projections, population growth on-site would not be substantial within the overall scale of Lake Elsinore or surrounding areas. The increase in population associated with the proposed Project has been addressed under the relevant issue areas identified throughout this EIR (e.g., public services, recreation, transportation and traffic, etc.). Under each of these topics, Project-related impacts are determined to be less than significant, or mitigation measures have been imposed to reduce impacts to the maximum feasible extent. There are no components of the proposed population increase that have not already been addressed and accounted for throughout this EIR for the Project site. Therefore, the proposed Project would not directly or indirectly induce substantial unplanned population growth in the area or otherwise result in growth that would result in significant adverse environmental effects not already addressed throughout this EIR. Thus, a less-than-significant impact would occur.

***Threshold b:*** ***Would the Project displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?***

The Project site is vacant and undeveloped under existing conditions and does not contain any existing housing or residents. Therefore, implementation of the proposed Project would not result in the displacement of substantial amount of existing people or housing and would not result in the need for construction of replacement housing elsewhere. Moreover, the Project involves the construction of 168 residential homes on-

site that would further augment the housing supply in the region. Thus, no impact associated with housing displacement would occur.

## 4.13.5 Cumulative Impact Analysis

This cumulative impact analysis considers development of the proposed Project in conjunction with other development projects and planned development in the vicinity of the Project site, including build-out of the City of Lake Elsinore General Plan Land Use Plan.

Build-out of the Project site is expected to generate a resident population that is greater than the City of Lake Elsinore General Plan's expected population projections. However, impacts associated with the Project's proposed increases in population on-site have been evaluated throughout this EIR, and mitigation measures have been imposed where necessary to reduce impacts to the maximum feasible extent. Therefore, implementation of the Project would not result in cumulatively-considerable impacts to the region.

As noted under the discussion of Threshold b, the Project site is vacant and undeveloped and would not result in the displacement of a substantial amount of existing residents or housing. Therefore, implementation of the Project would not require the need for construction of replacement housing elsewhere and would not result in cumulatively-considerable impacts due to the displacement of people or housing that could necessitate the construction of replacement housing.

## 4.13.6 Significance of Impacts Before Mitigation

Threshold a: Less-than-Significant Impact. Implementation of the Project would exceed local and regional projections. However, impacts associated with the Project's proposed increases in population on-site have been evaluated throughout this EIR, and mitigation measures have been imposed where necessary to reduce impacts to the maximum feasible extent. Therefore, Project impacts due to direct and indirect population growth would be less than significant.

Threshold b: No Impact. The Project would not result in the displacement of people or housing that could result in or require the construction of replacement housing; rather, the Project's development of 168 residential units would further augment the housing supply in the region. Thus, no impact associated with inducing housing demand would occur.

## 4.13.7 City Regulations, Design Requirements, and Mitigation

Impacts to Population and Housing as a result of Project implementation would be less than significant and mitigation is not required.

# 4.14 PUBLIC SERVICES

This Subsection provides information on existing public services and service levels for fire protection, police protection, schools, parks, libraries, and other public facilities, and evaluates impacts to the environment that may result from the demand the Project may have on such services. The information is based on a variety of source material including the City of Lake Elsinore General Plan and communications with public service agency personnel. Service letters were requested from the Lake Elsinore Unified School District (LEUSD), Riverside County Fire Department (RCFD), Riverside County Sheriff's Department (RCSD), the Riverside County Library System (RCPLS), and the Riverside County Department of Waste Resources (RCDWR). Copies of correspondence with these agencies are provided in *Technical Appendix M* to this EIR.

## 4.14.1 EXISTING CONDITIONS

### *A. Fire Protection/Emergency Medical Services*

Fire protection services for the Project site are provided by the Riverside County Fire Department (RCFD). The RCFD provides a full range of fire services within the County and contracting cities. The level of service provided is dependent on response times, travel distance, and staffing workload levels established in the Riverside County Fire Protection and Emergency Medical Aid Plan. The Fire Protection Master Plan contains four fire response categories that are used to determine the response times/travel distances for primary and secondary fire stations. The response categories are based on the amount of community build-out presumed in the Master Fire Plan. The Fire Department assumes in any given region that three or more fire engines respond to any reported fire.

The fire station that would serve the Project is Station 97 (Rosetta Canyon), which is located at 41725 Rosetta Canyon Drive, Lake Elsinore, CA 92532. The Rosetta Canyon Fire Station is approximately 3.0 roadway miles from the Project site. The fire station that could serve the Project site is staffed full time, 24 hours per day, 7 days per week, with a minimum four-person crew, including paramedics. The Project site is located in a Local Response Area (LRA) Very High Fire Hazard Severity Zone of Riverside County. (RCFD, 2018; Google Earth, 2018)

### *B. Sheriff Services*

The City of Lake Elsinore contracts for police protection with the Riverside County Sheriff's Department (RCSD). The Sheriff Station serving the Project area is the Lake Elsinore Police Station, located at 333 W. Limited Avenue, Lake Elsinore, CA 92530. The Lake Elsinore Police Station is approximately 4.1 roadway miles southeast of the Project site (Google Earth, 2018). The City units are assigned any of six (6) city beats, 90-95, and deploy from the Lake Elsinore Station daily. The proposed Project is located within city zone 95. In addition to community policing, other services provided by the Police Department include, but are not limited to, operating of the emergency 911 system and non-emergency phones via the Dispatch Center, operating lake patrol, performing traffic control, and providing crime prevention education. Also, the City of Lake Elsinore and the Lake Elsinore Police Department support the Crime Free Multi-Housing (CFMH) Program, which is a combined effort of law enforcement, property owners/managers, and tenants with a common interest of reducing crime and promoting a safer quality of life. (RCSD, 2018)

The City of Lake Elsinore has set a minimum standard of 0.85 officers per 1,000 residents during fiscal year 2010-2011. The Police Department has indicated that their desired staffing level is 1.0 officer per 1,000 residents. At present, the Lake Elsinore Police Station staffing levels are sufficient to serve the area under existing conditions. Average response times for the Lake Elsinore Police Station in the Project area from the year 2017 are shown in Table 4.14-1, *Lake Elsinore Police Station Response Times*. Emergency calls involving life-threatening events take priority assignment. (RCSD, 2018)

**Table 4.14-1 Lake Elsinore Police Station Response Times**

| PRIORITY LEVEL | AVERAGE RESPONSE TIME |
|---|---|
| Priority 1 | 5.23 minutes |
| Priority 2 | 11.33 minutes |
| Priority 3 | 17.7 minutes |
| Priority 4 | 21.73 minutes |

(RCSD, 2018)

### C. Schools

The Project site is located in the Lake Elsinore Unified School District (LEUSD) for elementary through high school services. The Project site is currently within the attendance boundary of the Elsinore Elementary School, located at 512 W. Summer School, Lake Elsinore, CA 92530; Elsinore Middle School, located at 1203 W. Graham Avenue, Lake Elsinore, CA 92530; and Temescal Canyon High School, located at 28755 El Toro Road, Lake Elsinore, CA 92532 (LEUSD, 2018). According to information provided by LEUSD, as of 2018, the above-listed schools that would serve the Project do not guarantee accepting new students due to increasing enrollment.

### D. Parks

The City of Lake Elsinore's Parks and Recreation Master Plan established the standard of five acres of usable park land per 1,000 population (Lake Elsinore, 2011b, p. 3.15-18). For a more detailed discussion regarding parks and recreational facilities in the region, refer to EIR Subsection 4.14, *Recreation*.

### E. Other Public Facilities

The Project site is located within the City of Lake Elsinore, which contains its own library facilities within the Riverside County Public Library System (RCPLS). The City of Lake Elsinore library facilities contains a total of 17,500 square feet of library space with approximately 66,686 volumes of material. A total of 12 persons are employed by the City of Lake Elsinore library facilities. The Project area is serviced by two (2) libraries within the City, including, Lakeside Library, located approximately 4.2 roadway miles to the southwest of the Project site at 32593 Riverside Drive, Lake Elsinore, CA 92530; and Lake Elsinore Library, located approximately 4.1 roadway mile to the southwest of the Project site at 600 W. Graham Avenue, Lake Elsinore, CA 92530. (RCPLS, 2018)

## 4.14.2 APPLICABLE ENVIRONMENTAL REGULATIONS

The following is a brief description of the federal, State, and local environmental laws and related regulations related to public services.

### *A. State Regulations*

#### *1. Fire Protection Services Regulations and Plans*

- **Public Resources Code (PRC) Sections 4290-4299**

This portion of the Public Resources Code (PRC) requires minimum statewide fire safety standards pertaining to: road standards for fire equipment access; standards for signs identifying streets, roads, and buildings; minimum private water supply reserves for emergency fire use; and fuel breaks and greenbelts. With certain exceptions, all new construction in potential wildland fire areas is required to meet the statewide standards. State requirements, however, do not supersede more restrictive local regulations.

- **PRC Sections 4102-4127 - State Responsibility Areas (SRAs)**

PRC Section 4102 specifies that "'State responsibility areas' means areas of the state in which the financial responsibility of preventing and suppressing fires has been determined by the [State Fire] Board pursuant to Section 4125, to be primarily the responsibility of the state." These areas may contain state or privately-owned forest, watershed, and rangeland. §§ 4126-4127 of the PRC further specify the standards that define what does and does not constitute an SRA.

- **California Code of Regulations (CCR) Title 24, Parts 2 and 9 – Fire Codes**

Part 2 of Title 24 of the CCR refers to the California Building Code which contains complete regulations and general construction building standards of State of California adopting agencies, including administrative, fire and life safety and field inspection provisions. Part 2 was updated in 2008 to reflect changes in the base document from the Uniform Building Code to the International Building Code. Part 9 refers to the California Fire Code, which contains other fire safety-related building standards. In particular, Chapter 7A, "Materials and Construction Methods for Exterior Wildfire Exposure," in the 2010 California Building Code addresses fire safety standards for new construction and Section 701A.3.2 addresses "New Buildings Located in Any Fire Hazard Severity Zone."

- **CCR Title 14 – Natural Resources**

These regulations constitute the basic wildland fire protection standards of the California Board of Forestry. They were prepared and adopted to establish minimum wildfire protection standards in conjunction with building, construction, and development within SRAs. Among other things, Title 14 requires the design and construction of structures, subdivisions, and developments in an SRA provide for basic emergency access and perimeter wildfire protection measures (fire fuel modification zones, etc.).

❑ California Government Code (CGC) Sections 51178-51179 – Very High Fire Hazard Severity Zones

Section 51178 specifies that the Director of CalFire, in cooperation with local fire authorities, must identify areas that are Very High Fire Hazard Severity Zones (VHFHSZs) in Local Responsibility Areas (LRAs), based on consistent statewide criteria and the expected severity of fire hazard. It further specifies that VHFHSZs "shall be based on fuel loading, slope, fire weather and other relevant factors," including areas subject to Santa Ana winds which are a "major cause of wildfire spread." Section 51179 states that a local agency (such as a county) must also designate (and map) the VHFHSZs in its jurisdiction by ordinance. (See the discussion on Ordinance No. 787, below, regarding Riverside County's VHFHSZs). Other portions of the Government Code outline when a local agency may use its discretion to exclude areas from VHFHSZ requirements or add areas not designated by the State of California to its VHFHSZ areas.

❑ CGC Section 51182 – Defensible Space

Pursuant to this code, a person who "owns, leases, controls, operates or maintains an occupied dwelling or occupied structure in, upon or adjoining a mountainous area, forest-covered land, brush-covered land, grass-covered land or land that is covered with flammable material" in a very high fire hazard severity zone designated by the local agency pursuant to § 51179, shall at all times maintain a specified amount of "defensible space" to protect structures in high fire hazard areas.

❑ PRC Section 4213 - Fire Prevention Fees

Pursuant to PRC Section 4213, in July of 2011, the State of California began assessing an annual "Fire Prevention Fee" for all habitable structures within the State's Responsibility Area (SRA) to pay for fire prevention services. The SRA is the portion of the state where the State of California is financially responsible for the prevention and suppression of wildfires. The SRA does not include lands within incorporated city boundaries, Tribal or federally owned land. As of 2013, the fee is up to $150 per habitable structure (i.e., a building that can be occupied for residential use, which does not include incidental buildings such as detached garages, barns, outdoor bathrooms, sheds, etc.).

### *2. School Services Regulations and Plans*

❑ Assembly Bill (AB) 16

In 2002, AB 16 created the Critically Overcrowded School Facilities program, which supplements the new construction provisions within the School Facilities Program (SFP). The SFP provides State of California funding assistance for new facility construction projects and modernization projects. The Critically Overcrowded School Facilities program allows school districts with critically overcrowded school facilities, as determined by the California Department of Education (CDE), to apply for new construction projects in advance of meeting all SFP new construction program requirements. Districts with SFP new construction eligibility and school sites included on a CDE list of source schools may apply.

❑ Leroy F. Greene School Facilities Act of 1998 (Senate Bill [SB] 50)

Senate Bill 50 (SB 50) was enacted by the State Legislature in 1998, which amended existing state law governing school fees. In particular, SB 50 amended prior California Government Code (CGC) Section

65995(a) to prohibit state or local agencies from imposing school impact mitigation fees, dedications, or other requirements in excess of those provided in the statute in connection with "any legislative or adjudicative act...by any state or local agency involving...the planning, use, or development of real property...."

The legislation also amended CGC Section 65996(b) to prohibit local agencies from using the inadequacy of school facilities as a basis for denying or conditioning approvals of any "legislative or adjudicative act [involving] the planning, use or development of real property." Further, SB 50 established the base amount of allowable developer fees: $1.93 per square foot for residential construction and $0.31 per square foot for commercial. These base amounts are commonly called "Level 1 fees" and are the same caps that were in place at the time SB 50 was enacted. Level 1 fees are subject to inflation adjustment every two years.

In certain circumstances, for residential construction, school districts can impose fees that are higher than Level 1 fees. School districts can impose Level 2 fees, which are equal to 50% of land and construction costs if they: (1) prepare and adopt a school needs analysis for facilities; (2) are determined by the State Allocation Board to be eligible to impose these fees; and (3) meet at least two of the following four conditions:

- At least 30% of the district's students are on a multi-track year-round schedule.
- The district has placed on the ballot within the previous four years a local school bond that received at least 50% of the votes cast.
- The district has passed bonds equal to 30% of its bonding capacity.
- Or, at least 20% of the district's teaching stations are relocatable classrooms.

Additionally, if the State of California's bond funds are exhausted, a school district that is eligible to impose Level 2 fees is authorized to impose even higher fees. Commonly referred to as "Level 3 fees," these fees are equal to 100% of land and construction costs of new schools required as a result of new developments.

### *B. Local Regulations*

#### ❑ Riverside County Fire Department Fire Protection and Emergency Medical Services Strategic Master Plan

The County of Riverside has developed this plan to proactively plan facility, service, and equipment needs for fire protection. It also incorporates the CDF Management Plan for several sub-zones within Riverside County. Implementation of this plan helps reduce potential risks of fire for residents in areas of moderate to high fire danger. (Riverside County, 2015, p. 4.13-95)

#### ❑ City of Lake Elsinore Municipal Code - § 16.34.060

The City of Lake Elsinore Municipal Code § 16.34.060 requires that prior to the issuance of a building permit, the applicant pay fees for the purposes set forth in that section, including the City's Library Mitigation Fee. Future construction of library improvements shall be paid to the City of Lake Elsinore at the time of building permit issuance to assure the necessary standards. (Lake Elsinore, 2018)

### ❑ Lake Elsinore Municipal Code (LEMC) – Title 16, Chapter 16.74

The purpose and intent of Chapter 16.74 of the City of Lake Elsinore Municipal Code is to establish a "program for the adoption and administration of development impact fees by the City for the benefit of the citizens whereby as a condition to the issuance of a building permit or certificate of occupancy by the City the property owner or land developer will be required to pay development impact fees or provide other consideration to the City for the purpose of defraying the costs of public expenditures for capital improvements (and operational services to the extent allowed by law) which will benefit such new development" (Section 16.74.010). This chapter establishes an "Animal shelter facilities fee" (Section 16.74.048) to mitigate the additional burdens created by new development for animal facilities and a "Fire facilities fee" (16.74.049) to mitigate the additional burdens created by new development for City fire facilities. (Lake Elsinore, 2011b, p. 3.14-12)

### ❑ City of Lake Elsinore General Plan

The City of Lake Elsinore General Plan Chapter 3.0, *Public Safety and Welfare*, provides goals and policies to promote community welfare and to enhance the overall wellbeing of the City's residents and visitors through responsive city government, efficient and timely emergency response, academic excellence, which includes access to quality school and library facilities for all residents, and effective and efficient delivery of services and utilities. (Lake Elsinore, 2011a, p. 3-33)

### ❑ Lake Elsinore Municipal Code (LEMC) – Title 16, Chapter 16.12 and Chapter 16.34

Title 16 of the Lake Elsinore Municipal Code sets for rules, regulations and specifications to control the division of land within the City. Through Section 16.12.060, the City Council reserves the right to set aside portions of a proposed land division for public schools and other public buildings, other than park and recreational facilities, that will be required for the population which is intended to occupy the land division under the plan of proposed property uses therein and for the general public. (Lake Elsinore, 2011b, p. 3.14-12)

Section 16.34.060 in Chapter 16.34 (Required Improvements) requires that prior to the issuance of a building permit, the applicant pay fees for the purposes set forth in that section. Paragraph B of Section 16.34.060 describes the City's Library Mitigation Fee and states that "Upon the recommendation of the Community Services Director and the concurrence of the City Manager, an in-lieu fee for future construction of library improvements shall be paid to the City of Lake Elsinore to assure the necessary library facilities are provided the community. Such facilities are to meet the Riverside City/County Library standards. An in-lieu fee as established by resolution shall be paid to the City at the time of building permit issuance. That amount shall be determined by the Community Services Director and transmitted to the Community Development Department for collection." (Lake Elsinore, 2011b, p. 3.14-12)

## 4.14.3 Basis For Determining Significance

*Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered government facilities or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:*

a. *Fire Protection;*
b. *Police Protection;*
c. *Schools;*
d. *Parks;*
e. *Other public facilities.*

The above listed thresholds are derived directly from Section XV of Appendix G to the CEQA Guidelines and address typical adverse effects to public services (OPR, 2018).

### 4.14.4 IMPACT ANALYSIS

***Threshold a:*** ***Would the Project result in substantial adverse physical impacts associated with the provision of new or physically altered government facilities or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for Fire Protection Services?***

The Project's proposal to develop 168 single-family residential homes, recreational areas, and open space would place additional demand on the RCFD, which provides fire protection services to the City of Lake Elsinore. Implementation of the Project would cumulatively affect the Department's ability to service the planned population. The Project would require an "Urban-Category II" level of service as defined by the Riverside County Fire Protection Master Plan. This classification requires a fire station be within three roadway miles of the Project site, and a full first alarm assignment team operating on the scene within 15 minutes of dispatch. The primary station serving the Project area (Station 97, Rosetta Canyon Fire) is located approximately 3.0 roadway miles from the Project site (Google Earth, 2018). Based on the travel distance between the Project site and Station 97, the first unit should arrive at the proposed Project site within approximately six and a half minutes after dispatch. The estimated response time is approximate but demonstrates that the RCFD would be able to meet the Urban-Category II Land Use protection goals of the Fire Protection Master Plan for the Project.

As a condition of Project approval, the proposed Project would be required to conform to all mandatory local, State, and federal laws, ordinances, and standards relating to fire safety. Among other items, these requirements include conformance with the Uniform Building Code Section 1503, which requires that all buildings be constructed with fire retardant roofing material, as well as standard Riverside County Fire Department conditions of approval (COAs) for specific plans, which prohibit flag lots and require alternative/secondary access routes to neighborhoods. The alternative/secondary access routes would be required to be maintained throughout construction and buildout of the Project.

As indicated above under Subsection 4.14.1, the Project site is located in the Local Responsibility Area "Very High Fire Hazard Severity Zone." As a condition of Project approval, the Project also would be required to conform to the special construction provisions contained in City of Lake Elsinore Municipal Code Section 15.56.020(P), Title 14, the California Building Code, California Fire Code, and Riverside County Fire

Department Information Bulletin #08-05 Fuel Modification Standard. As part of the Project's conditions of approval, plans would be required to be submitted for the Fire Department for review and approval prior to building permit issuance in order to demonstrate compliance with the applicable construction provisions. (RCFD, 2018; Lake Elsinore, 2018)

Furthermore, the Project would be required to implement the Project's Fire Protection Plan (FPP), which was prepared for the Project site by FIREWISE 2000, Inc. and is included as EIR *Technical Appendix G*. Compliance with the requirements of the FPP, as required by the Nichols Ranch Specific Plan, would reduce impacts due to the exposure of people or structures to a significant risk of loss, injury, or death involving wildland fires, and would therefore reduce the site's long-term demand for fire protection services.

Nonetheless, development of the proposed Project would impact fire services by placing an additional demand on existing County Fire Department resources and personnel. In accordance with the Riverside County Fire Protection Master Plan, a new fire station and/or appropriate fire company is required for the development of 2,000 dwelling units or more. The Project proposes the development of 168 dwelling units and recreational areas, and open space; therefore, the proposed Project would not directly result in the need for any new fire stations. However, the proposed Project would impact the fire department's ability to provide an adequate level of service. These impacts include an increased number of emergency and public service calls due to the increased presence of structures, traffic, and population. The Project is required to adhere to City of Lake Elsinore Municipal Code § 16.74.049, which requires payment of a DIF to assist the City in providing for fire protection facilities, including fire stations. Payment of the DIF fee would ensure that funds are available for capital improvements, such as land/equipment purchases and fire station construction. Accordingly, Project-related impacts to fire protection services are evaluated as less than significant and no mitigation beyond payment of DIF fees would be required.

***Threshold b:*** ***Would the Project result in substantial adverse physical impacts associated with the provision of new or physically altered government facilities or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for Police Protection?***

The Project would result in an approximate population increase of 668 residents and approximately 319 employees. The incremental increase in population and jobs to the region could result in an incremental increase in criminal activity such as burglaries, thefts, auto thefts, vandalism, etc. However, according to the RCSD, there is not a direct correlation between population growth, the number of crimes committed, and the number of RCSD personnel needed to respond to these increases. As the population and use of an area increases, however, additional financing of equipment and manpower needs are required to meet the increased demand. The proposed Project would result in an increase in the cumulative demand for services from the RCSD, which provides police protection services to the Project site.

Riverside County has set a minimum standard of 1 deputy per 1,000 people. This standard was adopted as part of the "Commitment to Public Safety and Citizens' Option for Public Safety," by the Board of Supervisors on September 17, 1996. The Sheriff's Department has indicated that their desired staffing level is 1.2 deputies

per 1,000 people. Additionally, Mitigation Measure 4.15.C of EIR No. 441 states that Riverside County shall meet and maintain a goal of 1.5 sworn peace officers per 1,000 population.

In order to maintain the desirable level of service established by EIR No. 441 Mitigation Measure 4.15.C, build-out of the proposed Project would generate a need for approximately one (1) additional sworn peace officer (668 total residents × 1.5 sworn peace officers/1,000 persons = 1.0 sworn peace officer). Staff necessary to support the additional deputy would include an appropriate level of civilian, investigation, and supervisory personnel. The proposed Project would not, however, in and of itself result in the need for new or expanded sheriff facilities. (RCSD, 2018)

The Project would be required to comply with the City of Lake Elsinore Municipal Code, which requires a development impact fee (DIF) payment to the City for impacts to public services and facilities, including sheriff facilities and services. Payment of the DIF fee would ensure that funds are available for either the purchase of new equipment and/or the hiring of additional sheriff personnel to maintain the County's desired level of service for sheriff protection.

In addition, implementation of a Crime-Free Multi-Housing Program between the Project's Home Owner Association and the Sheriff's Department, as would occur through the City's implementation of its General Plan, would further reduce impacts on sheriff resources.

Therefore, implementation of the Project would not result in the need for new or expanded sheriff facilities, and impacts would be less than significant. The Project's incremental demand for sheriff protection services also would be less than significant because the Project would be required to contribute DIF fees. Accordingly, a less-than-significant impact would occur with respect to sheriff protection services or facilities as a result of implementation of the proposed Project.

| | |
|---|---|
| ***Threshold c:*** | ***Would the Project result in substantial adverse physical impacts associated with the provision of new or physically altered government facilities or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for School Services?*** |

The construction of 168 dwelling units as planned under the proposed Project would increase the population in the City of Lake Elsinore and would consequently place greater demand on the existing public-school system by generating additional students to be served by the LEUSD. The LEUSD have established a student generation rate for each school type, which are depicted in Table 4.14-2, *Project-Related Student-Generation*. As indicated in Table 4.14-2, the Project's proposed 168 dwelling units would result in the annual generation of approximately 44 elementary school students (grades K-5), 22 middle school students (grades 6-8), and 29 high school students (grades 9-12). (LEUSD, 2018)

Table 4.14-2 Project-Related Student-Generation

| DISTRICT | SCHOOL TYPE | GRADES SERVED | STUDENT GENERATION RATE | DWELLING UNITS | NO. OF PROJECT-GENERATED STUDENTS |
|---|---|---|---|---|---|
| LEUSD | Elementary School | K-5 | 0.2644 | 168 | 44 |
| | Middle School | 6-8 | 0.1315 | 168 | 22 |
| | High School | 9-12 | 0.1743 | 168 | 29 |
| **Total Number of Students Generated by the Project** | | | | | **95** |

(LEUSD, 2018)

Correspondence with LEUSD has indicated that the elementary, middle, and high schools that would most likely serve the Project cannot guarantee the new students generated from the Project would be able to attend due to increasing enrollment. Thus, the estimated annual number of students generated by the Project as presented in Table 4.14-2 may not be able to be accommodated by existing facilities (LEUSD, 2018). New school facilities may be needed to either serve future students generated by the Project, or to shift attendance boundaries to free up capacity at one or all of the schools that may serve the Project. Although the LEUSD would need to construct new school facilities to meet the growing demand within this part of the City of Lake Elsinore, there are no current publicly-available plans detailing where such facilities would be built. Although the Project would contribute to the need for new or expanded school facilities, it is not possible to identify environmental impacts that may be associated with the construction of new or expanded school facilities until a specific proposal and design for the facility is prepared by the LEUSD, and an analysis of potential physical environmental impacts resulting from the construction and operation of new or expanded school facilities would be speculative in nature (see CEQA Guidelines § 15145). Environmental effects of such school facilities and any associated mitigation would be identified through a future CEQA process required in association with any future proposals for new or expanded school facilities. Any mitigation measures required for new or expanded school facilities could be funded, in part, from property taxes and/or through payment of school impact fees (as discussed below).

Although it is not possible to identify physical environmental effects that may result from new or expanded school facilities, the Project would be required to contribute fees to the LEUSD in accordance with the City of Lake Elsinore Municipal Code Chapter 3.36. Pursuant to the Leroy F. Greene School Facilities Act of 1998, payment of school impact fees constitutes full and complete mitigation for project-related impacts to school services. Although the Project's demand for school services may not be accommodated by existing facilities or staffing levels, mandatory payment of school impact fees still would be required and would ensure that the Project's impacts to school facilities and services would be less than significant. Accordingly, impacts would be less than significant and no mitigation beyond payment of fees would be required.

***Threshold d:*** ***Would the Project result in substantial adverse physical impacts associated with the provision of new or physically altered government facilities or the need for new or physically altered governmental facilities, the construction of which could cause***

***significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for <u>Parks?</u>***

Development of the property with residential and commercial uses would create a demand for public park facilities. As discussed in EIR Section 4.14, *Recreation*, the Project would yield a future population of 628 persons (168 homes x 3.74 persons per household = 628 persons) (USCB, 2016). Thus, the Project would require 3.14 acres of on-site public parkland in order to meet the City of Lake Elsinore's Parks and Recreation Master Plan's objective of providing 5.0 acres of parkland per 1,000 persons (628 persons x 5.0 acres /1,000 persons = 3.14 acres of parkland required) (Lake Elsinore, 2011b, p. 3.15-18). The Project would provide 8.3 acres of public parkland on-site, including a 6.5-acre linear park located in the southern portion of the Project site south of Stovepipe Creek, and a 1.8-acre neighborhood park located in the eastern portion of the Project site north of Stovepipe Creek thus, the Project would exceed the City's requirement for parkland development by 5.16 acres (8.3 acres of proposed parkland – 3.14 acres of required parkland = 5.16 acres of exceeding parkland). As concluded throughout this EIR, the Project's direct and cumulative impacts associated with construction of on-site park facilities would be less than significant, or would be reduced to below a level of significance with the application of mitigation measures. There are no impacts that would occur specifically related to on-site park development; accordingly, impacts would be less than significant.

***<u>Threshold e:</u> Would the Project result in substantial adverse physical impacts associated with the provision of new or physically altered government facilities or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for <u>Other public facilities?</u>***

Development of the proposed Project would increase the region's population, creating an additional demand for library facilities and services. Development of the site with 168 residential homes would result in an increase in the area's population by approximately 628 residents (USCB, 2016).

Although use of the internet has resulted in decreased demand being placed on library services nation-wide, the City continues to maintain its standards for book titles and library square footage. Library services in the City of Lake Elsinore are provided by the Riverside Public Library System. To attain the RCPLS level of service standard of 2.5 titles-per-capita, the Project-generated population would require an additional 1,570 book titles (2.5 titles-per-capita x 628 residents = 1,570 titles). To attain the RCPLS standard of 0.5 square foot of library space per capita, the Project would create the demand for 314 square feet of additional library space (0.5 s.f. of library space per capita x 628 residents = 314 s.f. of library space).

Development of the Project would contribute to an existing deficiency in library service standards. The provision of additional library space would be addressed through the City's compliance with the adopted level of service standards. Additionally, mandatory compliance with City of Lake Elsinore Municipal Code Chapter 8.02 requires payment of public facility impact fees. These fees would provide funding for library books and library expansion projects. Although new library facilities are being considered by the RCPLS in the Lake Elsinore area it is not possible to identify environmental impacts that may be associated with the development of this new library facility until a specific proposal and design for the facility is prepared by the RCPLS. Accordingly, impacts due to the construction of new or expanded library facilities are too speculative for

evaluation in this EIR (CEQA Guidelines § 15145). Environmental effects of such library facilities and any associated mitigation would be identified through a future CEQA process required in association with any future proposals for new or expanded library facilities. Any mitigation measures required for new or expanded library facilities could be funded, in part, from property taxes to such purposes. As such, Project impacts to library facilities and resources are evaluated as less than significant.

### 4.14.5 Cumulative Impact Analysis

This cumulative impact analysis considers development of the proposed Project in conjunction with other development projects and planned development in the vicinity of the Project site, including buildout of the City of Lake Elsinore General Plan Land Use Plan. This study area was selected because public services are provided to most of the existing and planned developments in the City of Lake Elsinore by the same service providers.

Although the proposed Project would be adequately served by fire protection services, based on the proximity and response times estimated from nearby fire station facilities, the Project would nonetheless result in an incremental increase in requests for service, which would affect the fire department's ability to provide acceptable levels of service. These impacts include an increased number of emergency and public service calls due to the increased presence of structures, increased traffic volumes, and increased population. When considered in the context of on-going cumulative development throughout the City of Lake Elsinore and surrounding areas, such impacts would be cumulatively considerable. However, the proposed Project and all cumulative developments would be required to contribute DIF fees pursuant to City of Lake Elsinore Municipal Code Chapter 16.74 or similar ordinances for surrounding jurisdictions. Mandatory DIF fee contributions by the Project and cumulative developments would ensure that adequate funding is provided to the RCFD for the acquisition of additional facilities, equipment, and personnel. Accordingly, the proposed Project's impact to the RCFD is evaluated as less than significant on a cumulative basis with the payment of DIF fees.

Although the Project site would be adequately served by sheriff facilities, the increased population that would be generated by the Project, when considered in conjunction with other on-going development throughout City of Lake Elsinore, has the potential to adversely affect service response times. However, the proposed Project and all cumulative developments would be required to contribute DIF fees pursuant to City of Lake Elsinore Municipal Code Chapter 16.74, which would help to provide for adequate equipment and personnel in the Project area. Therefore, with mandatory payment of DIF fees, Project impacts to police protection services would be less than significant on a cumulative basis.

The proposed Project, when considered in conjunction with on-going development throughout the LEUSD service area, would cumulatively affect the ability of these school districts to provide school services. As the above analysis demonstrates, the existing capacity at schools that service the Project area is not sufficient to accommodate Project-generated students. However, the Project and all cumulative developments would be required to contribute fees to the LEUSD, or other applicable school districts, in accordance with Public Education Code §§ 17620-17626. Pursuant to the Leroy F. Greene School Facilities Act of 1998, payment of school impact fees constitutes complete mitigation for project-related impacts to school services. Therefore,

although the Project's impacts to school services would be cumulatively considerable, cumulative impacts would be less than significant with contribution of mandatory school impact fees.

The proposed Project requires 3.14 acres of on-site parkland in order to meet the City's objective of providing 5.0 acres of parkland per 1,000 persons. Because the Project proposes 8.3 acres of parkland, the Project would meet the City's requirement for parkland development. Additionally, mandatory fees would ensure the provision of parkland in accordance with City standards and would ensure that cumulatively-significant impacts would not occur.

The proposed Project, when considered in conjunction with on-going development throughout the City of Lake Elsinore, would cumulatively affect the ability of the RCPLS to serve the local community with library services. It is not possible to identify environmental impacts that may be associated with such new or expanded library facilities until a specific proposal and design for such facilities are prepared. Accordingly, impacts due to the construction of new or expanded library facilities are too speculative for evaluation in this EIR (CEQA Guidelines § 15145). Environmental effects of such library facilities and associated mitigation would be identified through a future CEQA process required in association with any future proposals for new or expanded library facilities. However, the Project and all cumulative developments would contribute property taxes and would be required to contribute DIF fees to City of Lake Elsinore pursuant to City of Lake Elsinore Municipal Code Chapter 16.74, which could be used for the purpose of acquiring book titles and/or additional library square footage. Any mitigation measures required for new or expanded library facilities also could be funded, in part, from property taxes allocated to such purposes. Therefore, because environmental impacts associated with new or expanded library facilities cannot be known at this time and would be determined in the future once the RCPLS identifies a specific proposal for new or expanded library facilities, Project impacts to library services and facilities are evaluated as less than significant on a cumulative basis.

### 4.14.6 Significance of Impacts Before Mitigation

Threshold a: Less-Than-Significant Impact. With payment of mandatory DIF fees, the proposed Project's potential direct and cumulatively-considerable impacts to the RCFD would be reduced to less-than-significant levels, and the Project would not result in or require the construction of new fire protection facilities that could result in a significant impact to the environment.

Threshold b: Less-Than-Significant Impact. With payment of mandatory DIF fees, the proposed Project's potential direct and cumulatively-considerable impacts to the RCSD would be reduced to less-than-significant levels, and the Project would not result in or require the construction of new police protection facilities that could result in a significant impact to the environment.

Threshold c: Less-Than-Significant Impact. The Project would generate approximately 95 students, which would not be accommodated within LEUSD's existing capacity. Although the LEUSD would need to construct new school facilities to meet the growing demand within this part of Lake Elsinore, there are no current publicly-available plans detailing where such facilities would be built. Although the Project would contribute to the need for new or expanded school facilities, it is not possible to identify environmental impacts that may be associated with the construction of new or expanded school facilities until a specific proposal and design for the facility is prepared by the LEUSD, and an analysis of potential physical environmental impacts

resulting from the construction and operation of new or expanded school facilities would be speculative in nature (see CEQA Guidelines § 15145). Environmental effects of such school facilities and any associated mitigation would be identified through a future CEQA process required in association with any future proposals for new or expanded school facilities. Any mitigation measures required for new or expanded school facilities could be funded, in part, from property taxes and/or through payment of school impact fees. Furthermore, the payment of mandatory school impact fees would ensure that the Project would not result in significant direct or cumulatively-considerable impacts to the ability of the LEUSD to provide for school services. The Project would not require the construction of new school facilities that could result in a significant impact to the environment.

Threshold d: Less-Than-Significant Impact. With construction of public parkland on-site as required by the City of Lake Elsinore's Park and Recreation Master Plan, the proposed Project's direct and cumulatively-considerable park impacts to the City of Lake Elsinore would be reduced to less-than-significant levels, and the Project would not result in or require the construction of new parkland that could result in a significant impact to the environment.

Threshold e: Less-than-Significant Impact. Although the Project would contribute to a need for new or expanded library facilities, it is not possible to identify environmental impacts that may be associated with such new or expanded library facilities until a specific proposal and design for such facilities are prepared by the City of Lake Elsinore. Accordingly, impacts due to the construction of new or expanded library facilities are too speculative for evaluation in this EIR (CEQA Guidelines § 15145). Environmental effects of such library facilities and associated mitigation would be identified through a future CEQA process required in association with any future proposals for new or expanded library facilities. However, the Project would be required to contribute DIF fees, which would be used in part to provide for library space and/or new book volumes. Accordingly, with payment of DIF fees, Project impacts to library services and facilities are evaluated as less than significant on both a direct and cumulatively-considerable basis.

## 4.14.7 City Regulations, Design Requirements, and Mitigation

### *Applicable City Regulations and Design Requirements*

The following are applicable regulations and design requirements within the City of Lake Elsinore. Although these requirements technically do not meet CEQA's definition for mitigation, they are applied herein to ensure Project compliance with applicable City regulations and design requirements.

- The Project would be required to conform to all mandatory local, state, and federal laws, ordinances, and standards relating to fire safety. Among other items, these requirements include conformance with the Uniform Building Code Section 1503, which requires that all buildings be constructed with fire retardant roofing material, as well as standard Riverside County Fire Department conditions of approval (COAs) for specific plans, which prohibit flag lots and require alternative/secondary access routes to neighborhoods. The alternative/secondary access routes would be required to be maintained throughout construction and buildout of the proposed Project.
- The Project would be required to adhere to City of Lake Elsinore Municipal Code Chapter 16.74, which requires payment of a development impact fee (DIF) to assist the City in providing for fire protection

facilities, including fire stations. Payment of the DIF fee would ensure that funds are available for capital improvements, such as land/equipment purchases and fire station construction.

- The Project would be required to adhere to City of Lake Elsinore Municipal Code Chapter 16.74, which requires payment of a development impact fee (DIF) to assist the City in providing for sheriff protection facilities, including sheriff stations. Payment of the DIF fee would ensure that funds are available for additional sheriff personnel as well as capital improvements, such as land/equipment purchases and sheriff station construction.
- The Project is required to comply with City of Lake Elsinore Municipal Code Chapter 3.36, which requires mandatory payment of school impact fees pursuant to Public Education Code § 17072.10-18.
- The Project would be required to comply with the City of Lake Elsinore's Parks and Recreation Master Plan, which sets forth a parkland standard of 5.0 acres per 1,000 residents, specifies parkland dedication requirements, and imposes in-lieu park impact fees to address potential parkland deficiencies.
- The Project would be required to adhere to City of Lake Elsinore Municipal Code Chapter 16.74, which requires payment of a development impact fee (DIF) to assist the City in providing for library facilities. Payment of the DIF fee would ensure that funds are available for capital improvements, such as land/equipment purchases and library construction.

### *Mitigation*

Impacts to public services as a result of Project implementation would be less than significant, and mitigation is not required.

# 4.15 RECREATION

This Subsection provides an overview of the existing parks and recreational facilities that occur within the Project vicinity and that could potentially be indirectly physically affected by implementation of the proposed Project. This Subsection also describes on-site recreational facilities proposed by the Nichols Ranch Specific Plan (SP 2018-01) and provides an analysis of the potential environmental effects that could occur due to the construction of such recreational facilities on-site. The analysis herein is based in part on the City of Lake Elsinore General Plan Parks and Recreation and Circulation Elements.

## 4.15.1 EXISTING CONDITIONS

### *A. Federal Parks*

There are no federal parks located within the area immediately surrounding the Project site. The nearest federal park is the Cleveland National Forest located approximately 4.5 miles southwest of the Project site. (Google Earth, 2016)

### *B. State Parks*

There are no California State Parks located within the Project site's immediate vicinity. The nearest California State Park is the Lake Perris State Recreation Area located approximately 13.5 miles northeast of the Project site. The Lake Perris State Recreation Area includes boating, campsites, bike trails, hiking trails, picnic areas, an environmental learning center, and a beach area. (Google Earth, 2016; CADPR, 2018)

### *C. Regional and Local Parks*

As shown in Figure 4.15-1, *Existing Local and Regional Recreation Facilities*, several parks occur within a two-mile radius of the Project site, and are described below:

- **Rosetta Canyon Sports Park.** Rosetta Canyon Community Park is a local community park located approximately 1.5 miles southeast of the Project site. This facility includes five ball fields, one soccer field, two basketball courts, two tennis courts, a dog park, trails, play equipment, picnic areas, and several barbecues. (Lake Elsinore, 2011b, Table 3.15-1; Google Earth, 2016)
- **Alberhill Ranch Community Park.** Alberhill Ranch Community Park is a local community park located approximately 1.9 miles west of the Project site. This facility includes three ball fields, two sports fields, a basketball court, play equipment, and picnic areas. (Lake Elsinore, 2011b, Table 3.15-1; Google Earth, 2016)
- **Machado Park.** Machado Park is a neighborhood park located approximately 2.0 miles southwest of the Project site. This facility includes turf areas, tennis courts, play equipment, picnic areas, barbeques, and trails. (Lake Elsinore, 2011b, Table 3.15-1; Google Earth, 2016)
- **Summer Lake Park.** Summer Lake Park is a neighborhood park located approximately 2.3 miles southwest of the Project site. This facility includes a large multi-use field, play equipment, picnic areas, and several barbeques. (Lake Elsinore, 2011b, Table 3.15-1; Google Earth, 2016)

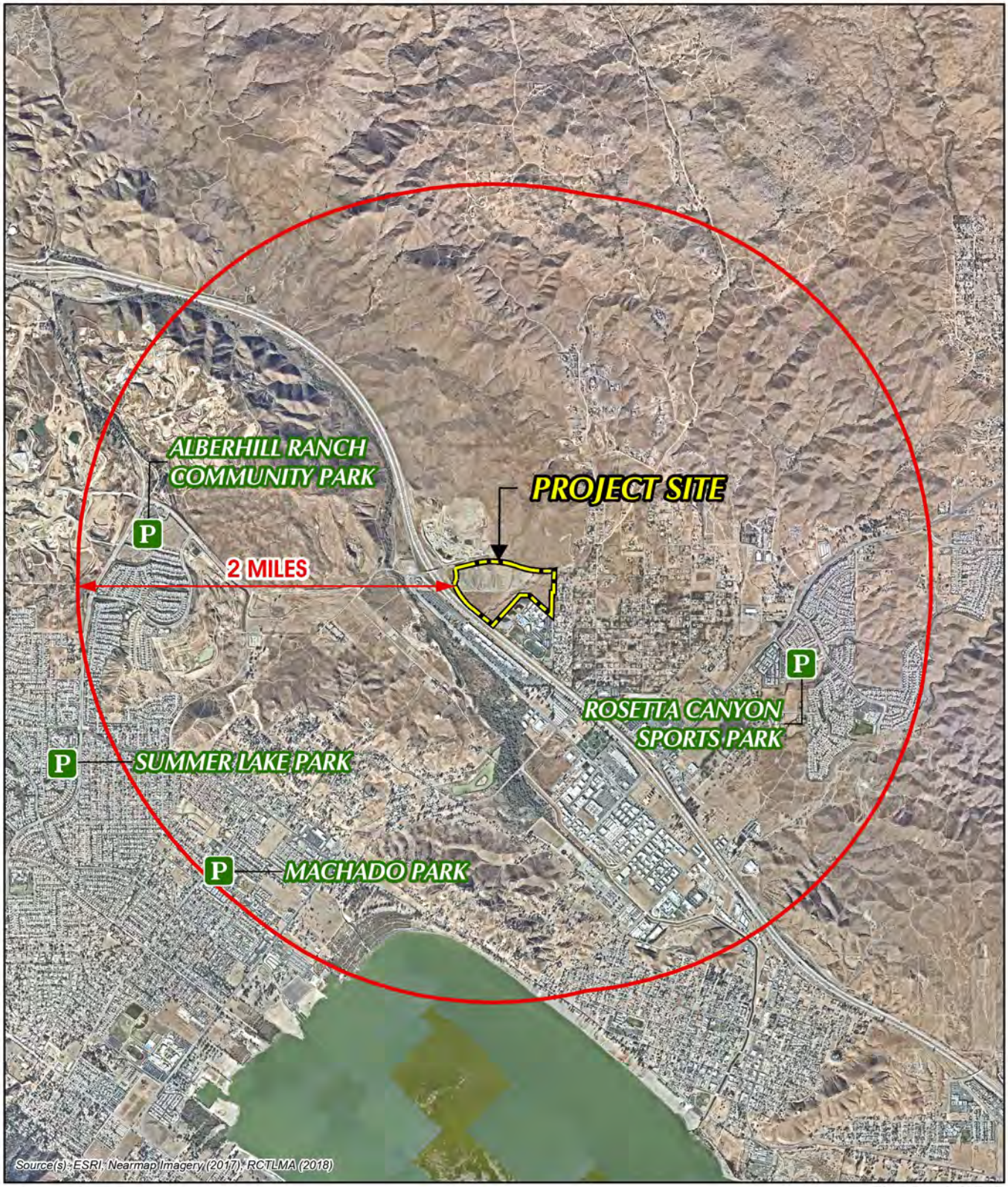
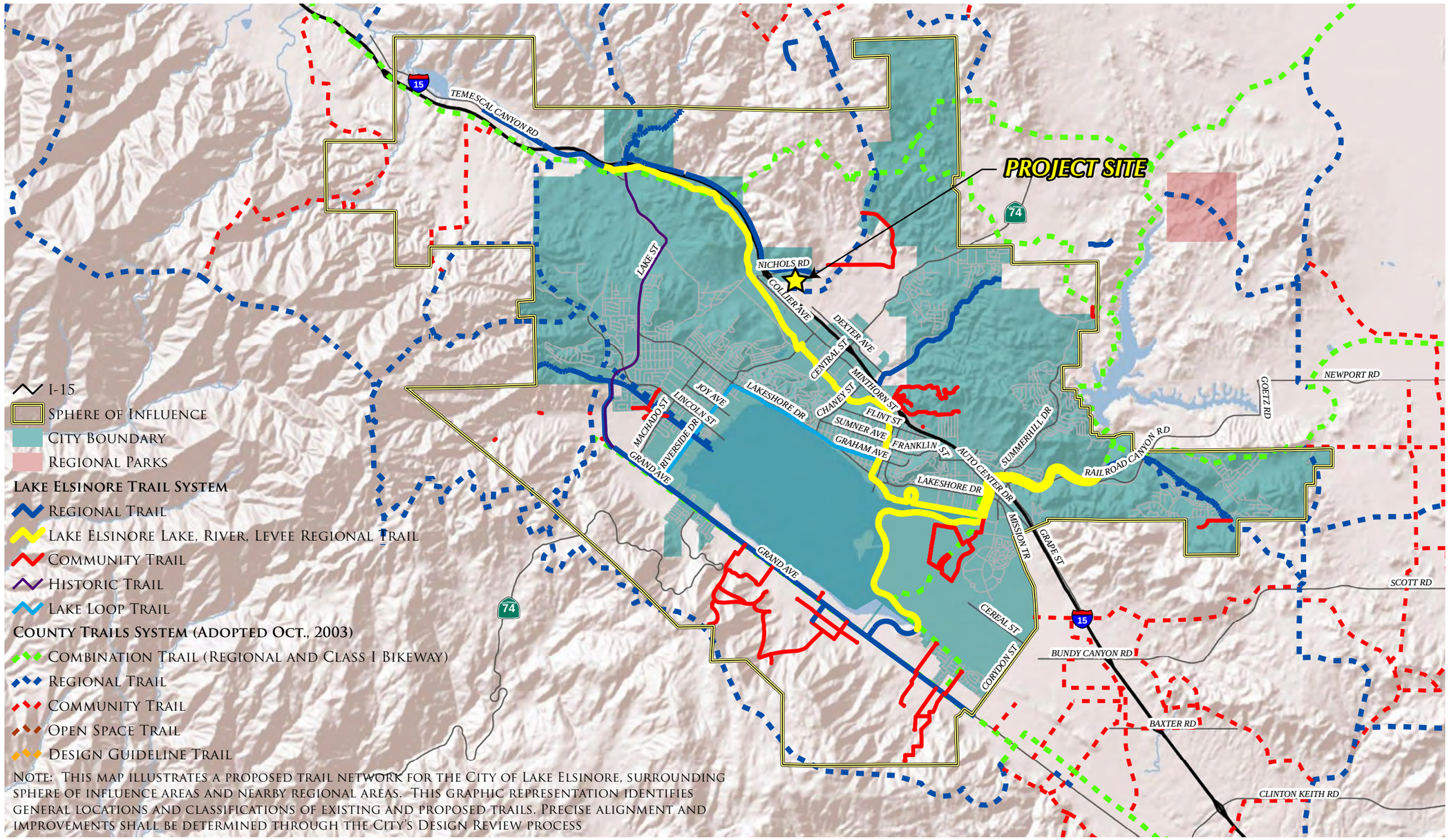



Figure 4.15-1
**EXISTING LOCAL AND REGIONAL RECREATION FACILITIES**




*Source(s): City of Lake Elsinore, County of Riverside (2011)*

Figure 4.15-2

NOT TO SCALE

**EXISTING AND PLANNED TRAIL SYSTEM**

### D. Regional Trails and Bikeway System

The City of Lake Elsinore General Plan identifies the City's long-term objectives for regional trails and bikeways within the City. Figure 4.15-2, *Existing and Planned Trail System*, depicts the existing and planned trail facilities within the Project vicinity. Figure 4.15-3, *Existing and Planned Bikeway System*, depicts the existing and planned bicycle facilities within the Project vicinity. As shown in Figure 4.15-2, a "Riverside County Regional Trail" is planned to traverse through the southern portion of the Project site along Stovepipe Creek and a "Lake Elsinore Regional Trail" is planned along Nichols Road which is directly north of the Project site. As shown in Figure 4.15-3, a Class II bike lane is planned along Nichols Road which directly abuts the northern Project boundary.

## 4.15.2 Applicable Environmental Regulations

The following is a brief description of the state and local environmental laws and related regulations related to recreation.

### A. State Regulations

#### 1. Quimby Act, California Government Code § 66477

The State of California's Quimby Act was established by the California Legislature for the purpose of preserving open space and providing park facilities for California's growing communities. The Quimby Act allows local agencies to establish ordinances requiring residential subdivisions to provide land or "in-lieu-of" fees for park and recreation purposes. This State Act requires the dedication of land and/or imposes a requirement of fees for park and recreational purposes as a condition of approval of tentative tract map or parcel map.

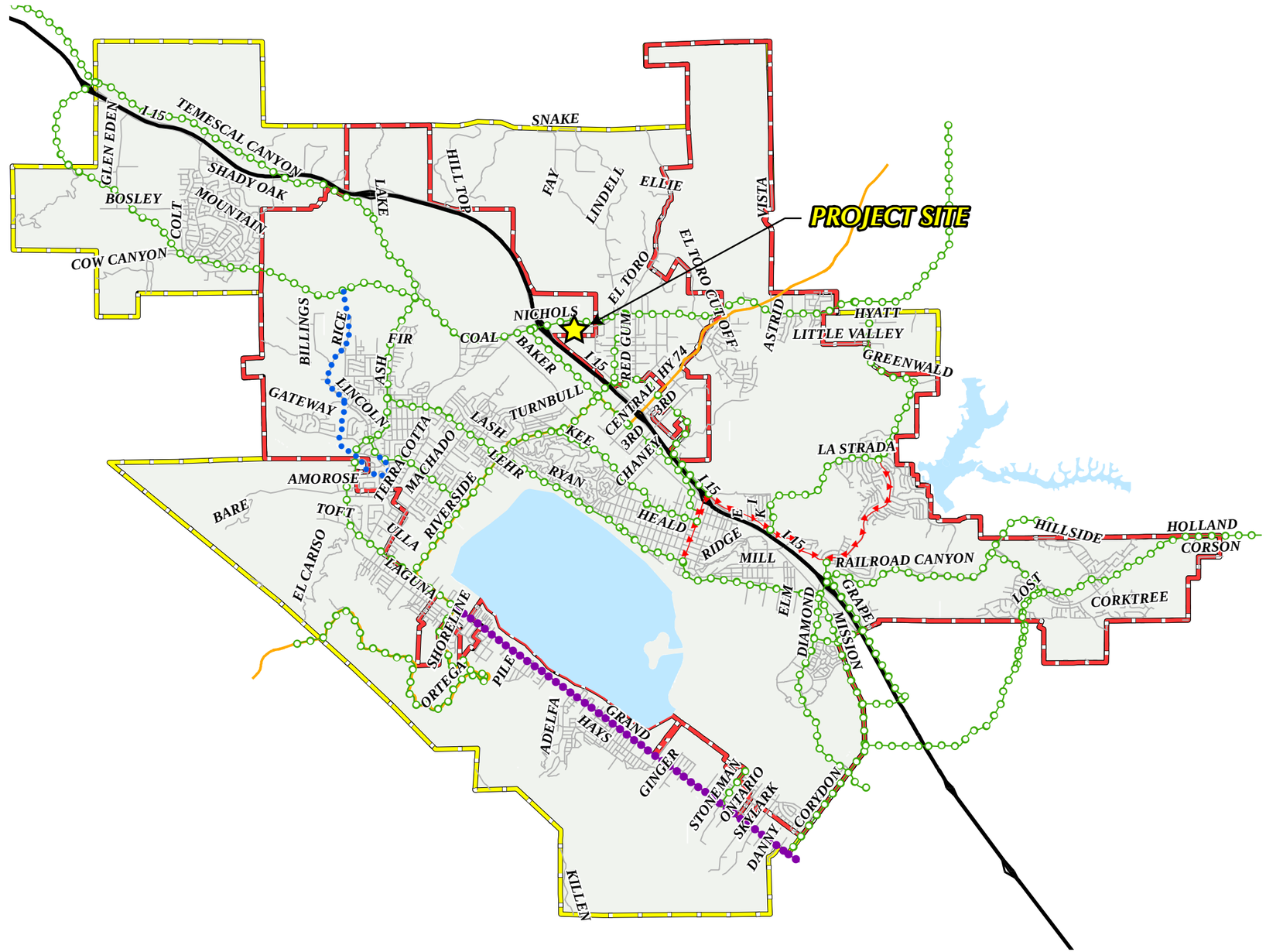
### B. Local Regulations

#### 1. City of Lake Elsinore General Plan – Circulation Element

The City of Lake Elsinore General Plan, approved in 2011, is a policy document that reflects the City's vision for the future of Lake Elsinore. The General Plan includes a Circulation Element which has the purpose of providing for the movement of goods and people, including pedestrians, bicycles, transit, train, air and automobile traffic flows within and through the community. The Circulation Element identifies the location of all existing and planned trails in the Project's vicinity and includes a bikeway plan. The Circulation Element identifies a "Riverside County Regional Trail" within the southern portion of the Project site along Stovepipe Creek and a "Lake Elsinore Regional Trail" along Nichols Road abutting the Project's northern boundary. The Circulation Element also identifies a Class II bike lane along Nichols Road which abuts the Project's northern boundary. (Lake Elsinore, 2011a, Figure 2.5; Figure 2.6)

#### 2. City of Lake Elsinore Parks and Recreation Master Plan

The City's Parks and Recreation Mater Plan was adopted July 14, 2009. The Master Plan identifies the City of Lake Elsinore's park, recreation, and trail needs, makes recommendations to meet the needs of Lake Elsinore, and proposes an action plan, including funding strategies, to help facilitate the implementation of




Source(s): Riverside County Integrated Project (2003)

Figure 4.15-3

NOT TO SCALE

**EXISTING AND PLANNED BIKEWAY SYSTEM**

recommendations. In addition, the Master Plan sets forth recreational facility standards for different facility types. The Master Plan also provides a framework for renovation and developments of park improvements and establishes a parkland standard requirement of five acres of usable park land per 1,000 persons. (Lake Elsinore, 2011b, p. 3.15-8)

### *3. Riverside County General Plan*

At the time the General Plan EIR was certified in 2011, the northern 45.4 acres of the Project site were located in within the City of Lake Elsinore, while the southern 27.1 acres were located within Riverside County. Thus, the southern 27.1 acres were subject to the regulations of the Riverside County General Plan. The southern 27.1 acres of the Project site were annexed into the City of Lake Elsinore on November 10, 2016 (Annexation No. 83) (RLAFCO, 2016). Thus, it should be noted that the Riverside County General Plan no longer applies to the southern 27.1 acres of the Project site.

### *4. Riverside County General Plan - Elsinore Area Plan*

The Riverside County General Plan covers the entire unincorporated portion of the County and is augmented by 19 Plan Areas. The Elsinore Area Plan (which includes the City and the nearby City of Canyon Lake) includes a multi-purpose trails system that connects various neighborhoods within the area plan with the recreational resources of the Cleveland National Forest and the regional trail system. The Riverside County General Plan Trails System within the City of Lake Elsinore is included in Figure 4.15-2. (Lake Elsinore, 2011b, pp 3.15-7 - 3.15-8)

### *5. City of Lake Elsinore Municipal Code Chapter 16.12 and Chapter 16.34*

Chapter 16.12 of the City of Lake Elsinore Municipal Code addresses park and recreation facilities and states that the "land divider shall either dedicate land or pay a fee in lieu thereof, or a combination of the two, at the option of the City, for park or recreational" purposes. Chapter 16.34 (Required Improvements) requires that prior to the issuance of a building permit, the applicant must pay fees for the purposes set forth in that section. Paragraph D of Section 16.34.060 describes the City's Park Capital Improvement Fund and states that "For the purpose of purchasing the land and developing and maintaining the City park system, the City Council shall have the option to request dedication for park purposes or in lieu thereof, request that the applicant pay a fee in accordance with the resolution setting said fee." (Lake Elsinore, 2011b, p. 3.15-9)

## 4.15.3 BASIS FOR DETERMINING SIGNIFICANCE

The proposed Project would result in a significant impact to recreation if the Project or any Project-related component would:

a. *Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated; or*

b. *Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment.*

The above listed thresholds are derived directly from Section XVI of Appendix G to the CEQA Guidelines and address typical adverse effects to recreation (OPR, 2018).

## 4.15.4 IMPACT ANALYSIS

***Threshold a:*** ***Would the Project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?***

The Project proposes the construction of 8.3 acres of parkland, including a 6.5-acre linear park within Planning Area 8 and a 1.8-acre neighborhood park within Planning Area 10. The Project also proposes the construction of up to 168 dwelling units on-site, which would result in an increase to the City's population by up to 628 persons (168 dwelling units x 3.74 persons per household = 628 future residents) (USCB, 2016). The City of Lake Elsinore Parks and Recreation Master Plan specifies that the minimum park standard is 5.0 acres for each 1,000 residents (Lake Elsinore, 2008, p. 8-1). Thus, the Project's future population of 628 residents would result in the need for 3.1 acres of parkland (628 persons x 5.0 acres /1,000 persons = 3.1 acres). The Project proposes to provide 8.3 acres of active and passive recreation on-site. Thus, the Project would exceed the parkland requirements of the City of Lake Elsinore requirement of 5.0 acres of parkland per 1,000 persons by 5.2 acres. Accordingly, the Project would not result in or require the development of new parkland to serve future Project residents beyond what is planned within the Project's boundaries.

The Project proposes the construction of trails in accordance with the City of Lake Elsinore General Plan Circulation Element. The Project includes a curb-separated sidewalk along Nichols Road abutting the Project's northern boundary, a trail along Stovepipe Creek within Planning Area 8, and a trail along Stovepipe Creek within Planning Area 10. The trail within Planning Area 8 would connect to planned pedestrian facilities on "B" Street and would provide pedestrian connectivity north to the trail in Planning Area 10, and further north to the pedestrian facilities in Nichols Road. The regional trail would provide connection to Nichols Road which would provide a connection to future regional trail projects in accordance with Figure 4.15-2. The General Plan Circulation Element plans for a Class II bicycle lane along both sides of Nichols Road, directly north of the Project. The Project accommodates half-width frontage improvements including a 6-foot wide Class II bicycle lane on the southern edge of the roadway. The Class II bicycle lane along the northern edge of Nichols Road would be built by others in the future. (Lake Elsinore, 2011a, Figure 2.5; Figure 2.6)

Given the excess amount of parkland and trails planned within the Project area, it is unlikely that future Project residents would utilize parkland resources outside of the Project boundaries to the point that physical deterioration of such facilities would occur or would be accelerated. Moreover, it is likely that any incremental increase in the use of existing off-site recreational facilities as a result of the Project would be off-set by existing City residents utilizing proposed recreational facilities on-site. Implementation of the Project would not otherwise result in significant environmental effects related to parks. Accordingly, impacts to the environment resulting from the Project's demand for parkland resources would be less than significant.

***Threshold b:*** ***Would the Project include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?***

The Project proposes the construction of 8.3 acres of parkland, including a 6.5-acre linear park within Planning Area 8 and a 1.8-acre neighborhood park within Planning Area 10. The Project's recreational facilities would be developed as part of Phase 2 of Project development. The physical construction of the on-site recreation facilities has been addressed under the relevant issue areas identified throughout this EIR (e.g., air quality, biological resources, historical/archeological resources, etc.). Under each of these topics, the Project impacts are determined to be less than significant, or mitigation measures have been imposed to reduce impacts to the maximum feasible extent. There are no components of the planned recreation facilities on-site that have not already been addressed and accounted for throughout this EIR for the Project site. Accordingly, Project impacts due to parkland development on-site would be less than significant, requiring no mitigation beyond that which is identified in other portions of this EIR.

Additionally, and as noted under Threshold a, the Project would result in a demand for 3.1 acres per the City of Lake Elsinore Parks and Recreation Master Plan, while the Project proposes a total of 8.3 acres of parkland on-site; thus, the Project would exceed the City of Lake Elsinore parkland provision requirement by 5.2 acres. Thus, the Project would not result in or require the construction of recreational facilities off-site, and no impacts due to off-site parkland construction would occur as a result of the Project.

## 4.15.5 CUMULATIVE IMPACT ANALYSIS

This cumulative impact analysis considers development of the proposed project in conjunction with other development projects and planned development in the vicinity of the Project site, including build-out of the City of Lake Elsinore General Plan Land Use Plan. This study area was selected because people tend to utilize community recreation facilities that are near where they live.

The Project would be required to comply with the City of Lake Elsinore Parks and Recreation Master Plan, which identifies parkland requirements, specifies parkland dedication requirements, and imposes in-lieu park impact fees. The Project also would be consistent with and would implement a portion of the City of Lake Elsinore General Plan Trails System, included as Figure 4.15-2 in this EIR. Other developments within the City would be subject to City of Lake Elsinore Parks and Recreation Master Plan and would be required to demonstrate compliance with the City of Lake Elsinore General Plan Trails System. Compliance ensures there is enough parkland to serve the population. It is important to note that Project residents and residents from cumulative developments may increase utilization of nearby recreation facilities in the area. The Project proposes construction of a 6.5-acre linear park and a 1.8-acre neighborhood park which would be utilized by Project residents and residents the surrounding area. However, construction of adequate parkland and/or payment of fees by other cumulative developments would ensure the provision of parkland in accordance with City standards and would ensure that cumulatively-considerable impacts would not occur. Accordingly, the Project's impacts due to the physical deterioration of existing parks and recreational facilities within the region would be less-than-cumulatively considerable.

The construction of 8.3 acres of public parkland on-site, and construction of trails and the Class II bicycle land along Nichols Road per the City's General Plan are inherent to the Project's construction phase. Cumulatively-

considerable effects associated with the buildout of these areas have been evaluated throughout appropriate topical headings within this EIR, and where necessary, mitigation measures have been imposed on the Project to reduce impacts to the maximum feasible extent. There are no potential cumulatively-considerable impacts to the environment that would occur that are unique to parkland construction on-site. Accordingly, cumulatively-considerable impacts due to on-site parkland construction would be less than significant.

## 4.15.6 Significance of Impacts Before Mitigation

Threshold a: Less-than-Significant Impact. The Project would provide a total of 8.3 acres of public parkland on-site, while only 3.1 acres are required by the City of Lake Elsinore Parks and Recreation Plan; thus, the Project would exceed the City of Lake Elsinore parkland requirement by 5.2 acres. Given the excess amount of parkland planned within the Project area, it is unlikely that future Project residents would utilize parkland resources outside of the Project boundaries to the point that physical deterioration of such facilities would occur or would be accelerated. Moreover, it is likely that any incremental increase in the use of existing recreational uses as a result of the Project would be off-set by existing City residents utilizing proposed recreational facilities on-site. Thus, the Project's impacts to existing parks and recreation facilities in the region would be less than significant.

Threshold b: Less-than-Significant Impact. A 6.5-acre linear park, a 1.8-acre neighborhood park, trails, and a Class II bicycle lane per the City's General Plan are proposed on the Project site. Effects associated with the physical construction of these facilities are addressed under the relevant issue areas identified within this EIR (e.g., air quality, biological resources, cultural resources etc.). As concluded throughout this EIR, the Project's direct and cumulative impacts associated with construction of the Project would be less than significant or would be reduced to the maximum feasible extent with the implementation of mitigation measures.

## 4.15.7 City Regulations, Design Requirements, and Mitigation

### *Applicable City Regulations and Design Requirements*

The following are application regulations and design requirements within the City of Lake Elsinore. Although these requirements technically do not meet CEQA's definition for mitigation, they are imposed herein to ensure Project compliance with applicable City regulations and design requirements.

- The Project shall be required to comply with the City of Lake Elsinore Parks and Recreation Plan, which sets forth a parkland standard of 5.0 acres per 1,000 residents.
- The Project shall be required to construct a 6.5-acre linear park and a 1.8-acre neighborhood park consistent with the Nichols Ranch Specific Plan. Construction of the 6.5-acre linear park and a 1.8-acre neighborhood park would serve the parkland needs of the Project's population.
- The Project shall be required to comply with City of Lake Elsinore Municipal Code Chapter 16.12.
- The Project shall be required to comply with City of Lake Elsinore Municipal Code Chapter 16.34.

### *Mitigation*

Impacts to recreation facilities as a result of Project implementation would be less than significant, and mitigation is not required.

# 4.16 TRANSPORTATION AND TRAFFIC

The following analysis is primarily based on a traffic impact analysis (TIA) prepared by Urban Crossroads, Inc., titled, "Nichols Ranch Traffic Impact Analysis" and dated December 18, 2018. A copy of the TIA report is included as *Technical Appendix L* to this EIR. The TIA evaluates the potential operating deficiencies of traffic and circulation facilities in the proposed Project's study area and identifies improvements that would be needed to relieve operational deficiencies. As directed by City of Lake Elsinore staff, the TIA has been prepared in accordance with the County of Riverside's *Traffic Impact Analysis Preparation Guide* (April 2008), the California Department of Transportation (Caltrans) *Guide for the Preparation of Traffic Impact Studies* (December 2002), and consultation with City of Lake Elsinore staff during the scoping process. The approved Traffic Study Scoping agreement is provided in Appendix 1.1 of the TIA.

On December 28, 2018, updates to the CEQA Guidelines were approved by the Office of Administrative Law (OAL). As part of the updates to the CEQA Guidelines, thresholds of significant for evaluation of impacts to transportation and traffic have changed. The CEQA Guidelines update eliminated the threshold of significance for evaluating impacts due to changes to air traffic patterns, and consolidated the evaluation of impacts due to a conflict with adopted policies, plans, or programs into an analysis of impacts due to a conflict with programs, plans, ordinances, or policies addressing the circulation system (i.e., new Threshold a.). However, new Threshold b. of the CEQA Guidelines for Transportation and Traffic requires an evaluation of impacts due to Vehicle Miles Travelled (VMTs), instead of evaluating impacts based on Level of Service (LOS) criteria, as required by California Senate Bill (SB) 743. LOS has been used as the basis for determining the significance of traffic impacts as standard practice in CEQA documents for decades. In 2013, SB 743 was passed, which is intended to balance the need for LOS for traffic planning with the need to build infill housing and mixed-use commercial developments within walking distance of mass transit facilities, downtowns, and town centers and to provide greater flexibility to local governments to balance these sometimes-competing needs. At full implementation of SB 743, the California Governor's Office of Planning and Research (OPR) is expected to replace LOS as the metric against which traffic impacts are evaluated, with a metric based on VMTs. As a component of OPR's revisions to the CEQA Guidelines in December 2018, lead agencies will be required to adopt VMT thresholds of significance by July 2020. At the time this EIR was prepared, a VMT metric was not published by OPR, and the City of Lake Elsinore in its capacity as Lead Agency, as well as surrounding local agencies in which the Project's traffic would circulate, use LOS as the significance criteria for evaluating a Project's traffic impacts. For this reason, a LOS metric and not a VMT metric is appropriately used in this EIR.

## 4.16.1 STUDY AREA DESCRIPTION

The geographic area that was evaluated for Project-related effects to the transportation and circulation network (hereafter referred to as the "Project study area") is defined in the following subsections.

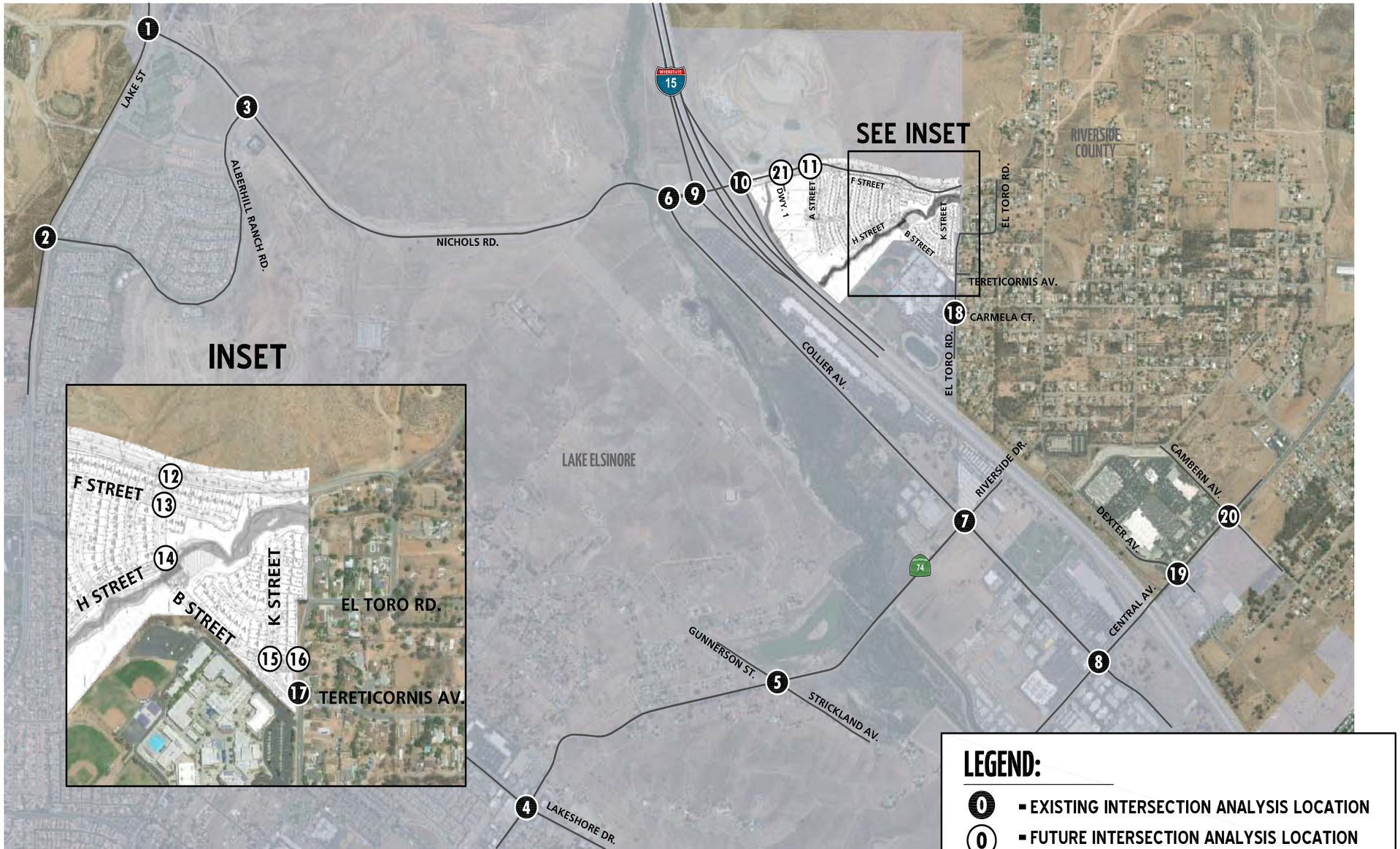
### *A. Intersections*

The 21 study area intersections listed in Table 4.16-1, *Intersection Analysis Locations*, and depicted on Figure 4.16-1, *Intersection Analysis Locations*, were selected for the Project's TIA based on consultation with City of Lake Elsinore staff. As directed by City of Lake Elsinore staff, the TIA has been prepared in accordance

## Table 4.16-1 Intersection Analysis Locations

| ID | Intersection Location | Jurisdiction |
|---|---|---|
| 1 | Lake St. & Nichols Rd. | Lake Elsinore, County of Riverside |
| 2 | Lake St. & Alberhill Ranch Rd. | Lake Elsinore, County of Riverside |
| 3 | Alberhill Ranch Rd. & Nichols Rd. | Lake Elsinore |
| 4 | Lakeshore Dr. & Riverside Dr. (SR-74) | Lake Elsinore, Caltrans |
| 5 | Gunnerson St./Strickland Av. & Riverside Dr. (SR-74) | Lake Elsinore, Caltrans |
| 6 | Collier Av. & Nichols Rd. | Lake Elsinore |
| 7 | Collier Av. & Riverside Dr. (SR-74) | Lake Elsinore, Caltrans |
| 8 | Collier Av. & Central Av. (SR-74) | Lake Elsinore, County of Riverside, Caltrans |
| 9 | I-15 Southbound Ramps & Nichols Rd. | Lake Elsinore, Caltrans |
| 10 | I-15 Northbound Ramps & Nichols Rd. | Lake Elsinore, Caltrans |
| 11 | A Street & Nichols Rd. | Lake Elsinore |
| 12 | B Street & Nichols Rd. | Lake Elsinore |
| 13 | B Street & F Street – Future Intersection | Lake Elsinore |
| 14 | B Street & H Street – Future Intersection | Lake Elsinore |
| 15 | K Street & B Street – Future Intersection | Lake Elsinore |
| 16 | El Toro Rd. & B Street – Future Intersection | Lake Elsinore, County of Riverside |
| 17 | El Toro Rd. & Tereticornis Av. | County of Riverside |
| 18 | El Toro Rd. & Carmela Ct. | County of Riverside |
| 19 | Dexter Av. & Central Av. (SR-74) | Lake Elsinore, Caltrans |
| 20 | Cambern Av. & Central Av. (SR-74) | Lake Elsinore, County of Riverside, Caltrans |
| 21 | Driveway 1 & Nichols Rd. | Lake Elsinore |

(Urban Crossroads, 2018c, Table 1-1)




Source(s): Urban Crossroads (08-14-2018)

Figure 4.16-1

NOT TO SCALE

**INTERSECTION ANALYSIS LOCATIONS**

with the County of Riverside's Traffic Impact Analysis Preparation Guide (April 2008) as the City does not have their own guidelines. The study area includes intersections where the Project is anticipated to contribute 50 or more peak hour trips per the County's traffic study guidelines. Furthermore, the rationale for evaluating intersections where a project would contribute 50 or more peak-hour trips is standard industry practice and supported by substantial evidence. It should also be noted that the 50 peak hour trip threshold is used by several other lead agencies throughout Southern California, including Caltrans and County of Riverside. In effect, these jurisdictions have established 50 project trips as the threshold of significance for when to analyze signalized intersections. Therefore, a project trip contribution of less than 50 peak hour trips is typically not evaluated. (Urban Crossroads, 2018c, p. 5)

### *B. Freeway Mainline Segments*

Study area freeway mainline analysis locations were selected based on Caltrans traffic study guidelines, which may require the analysis of State highway facilities. The Project is anticipated to contribute more than 50 peak hour trips to the State Highway System (SHS), as such, the TIA evaluates the freeway segments adjacent to the point of entry to the SHS as listed in Table 4.16-2, *Freeway Mainline Segment Analysis Locations*. (Urban Crossroads, 2018c, p. 7)

**Table 4.16-2 Freeway Mainline Segment Analysis Locations**

| ID | Freeway Mainline Segments |
|---|---|
| 1 | I-15 Freeway – Southbound, North of Nichols Road |
| 2 | I-15 Freeway – Southbound, South of Nichols Road |
| 3 | I-15 Freeway – Northbound, North of Nichols Road |
| 4 | I-15 Freeway – Northbound, South of Nichols Road |

(Urban Crossroads, 2018c, Table 1-2)

### *C. Freeway Merge/Diverge Junctions*

Similarly, the Project is anticipated to contribute more than 50 peak hour trips to the study area freeway merge/diverge ramp junction analysis locations, as such, the freeway ramp junctions for each direction of flow as shown on Table 4.16-3, *Freeway Merge/Diverge Ramp Junction Analysis Locations*, were evaluated as part of the TIA. (Urban Crossroads, 2018c, p. 7)

**Table 4.16-3 Freeway Merge/Diverge Ramp Junction Analysis Locations**

| ID | Freeway Merge/Diverge Ramp Junctions |
|---|---|
| 1 | I-15 Freeway – Southbound, Off-Ramp at Nichols Road (Diverge) |
| 2 | I-15 Freeway – Southbound, On-Ramp at Nichols Road (Merge) |
| 3 | I-15 Freeway – Northbound, On-Ramp at Nichols Road (Merge) |
| 4 | I-15 Freeway – Northbound, Off-Ramp at Nichols Road (Diverge) |

(Urban Crossroads, 2018c, Table 1-3)

## 4.16.2 METHODOLOGIES FOR DETERMINING TRANSPORTATION FACILITY DEFICIENCIES

### *A. Level of Service*

Traffic operations of roadway facilities are described using the term "Level of Service" (LOS). LOS is a qualitative description of traffic flow based on several factors such as speed, travel time, delay, and freedom to maneuver. Six levels are typically defined ranging from LOS A, representing completely free-flow conditions, to LOS F, representing breakdown in flow resulting in stop-and-go conditions. LOS E represents operations at or near capacity, an unstable level where vehicles are operating with the minimum spacing for maintaining uniform flow. (Urban Crossroads, 2018c, p. 37)

LOS has been used as the basis for determining the significance of traffic impacts as standard practice in CEQA documents for decades. In 2013, California Senate Bill (SB) 743 was passed, which is intended to balance the need for LOS for traffic planning with the need to build infill housing and mixed-use commercial developments within walking distance of mass transit facilities, downtowns, and town centers and to provide greater flexibility to local governments to balance these sometimes-competing needs. At full implementation of SB 743, the California Governor's Office of Planning and Research (OPR) is expected to replace LOS as the metric against which traffic impacts are evaluated, with a metric based on vehicle miles traveled (VMT). At the time the NOP for this EIR was released (May 25, 2018), a VMT metric was not published by OPR, and the City of Lake Elsinore in its capacity as Lead Agency, as well as surrounding local agencies in which the Project's traffic would circulate, use LOS as the significance criteria for evaluating a Project's traffic impacts. For this reason, a LOS metric and not a VMT metric is appropriately used in this EIR.

### *B. Analysis Methodologies*

#### *1. Intersection Capacity Analysis*

The definitions of LOS for interrupted traffic flow (flow restrained by the existence of traffic signals and other traffic control devices) differ slightly depending on the type of traffic control. The LOS is typically dependent on the quality of traffic flow at the intersections along a roadway. The 6th Edition Highway Capacity Manual (HCM) methodology expresses the LOS at an intersection in terms of delay time for the various intersection approaches. The HCM uses different procedures depending on the type of intersection control. (Urban Crossroads, 2018c, p. 37)

#### ❑ Signalized Intersections

##### *City of Lake Elsinore*

The City of Lake Elsinore requires signalized intersection operations analysis based on the methodology described in the HCM. Intersection LOS operations are based on an intersection's average control delay. Control delay includes initial deceleration delay, queue move-up time, stopped delay, and final acceleration delay. For signalized intersections LOS is directly related to the average control delay per vehicle and is correlated to a LOS designation as described in Table 4.16-4, *Signalized Intersection LOS Thresholds*. Study area intersections have been evaluated using the Synchro (Version 10) analysis software package. (Urban Crossroads, 2018c, p. 37)

**Table 4.16-4 Signalized Intersection LOS Thresholds**

| Description | Average Control Delay (Seconds), V/C ≤ 1.0 | Level of Service, V/C ≤ 1.0 | Level of Service, V/C > 1.0 |
|---|---|---|---|
| Operations with very low delay occurring with favorable progression and/or short cycle length. | 0 to 10.00 | A | F |
| Operations with low delay occurring with good progression and/or short cycle lengths. | 10.01 to 20.00 | B | F |
| Operations with average delays resulting from fair progression and/or longer cycle lengths. Individual cycle failures begin to appear. | 20.01 to 35.00 | C | F |
| Operations with longer delays due to a combination of unfavorable progression, long cycle lengths, or high V/C ratios. Many vehicles stop and individual cycle failures are noticeable. | 35.01 to 55.00 | D | F |
| Operations with high delay values indicating poor progression, long cycle lengths, and high V/C ratios. Individual cycle failures are frequent occurrences. This is considered to be the limit of acceptable delay. | 55.01 to 80.00 | E | F |
| Operation with delays unacceptable to most drivers occurring due to over saturation, poor progression, or very long cycle lengths. | 80.01 and up | F | F |

Source: HCM (6th Edition)

(Urban Crossroads, 2018c, Table 2-1)

Synchro is a macroscopic traffic software program that is based on the signalized intersection capacity analysis as specified in the HCM. Macroscopic level models represent traffic in terms of aggregate measures for each movement at the study intersections. Equations are used to determine measures of effectiveness such as delay and queue length. The level of service and capacity analysis performed by Synchro takes into consideration optimization and coordination of signalized intersections within a network. (Urban Crossroads, 2018c, p. 37)

The peak hour traffic volumes have been adjusted using a peak hour factor (PHF) to reflect peak 15-minute volumes. Common practice for LOS analysis is to use a peak 15-minute rate of flow. However, flow rates are typically expressed in vehicles per hour. The PHF is the relationship between the peak 15-minute flow rate and the full hourly volume (e.g. PHF = [Hourly Volume] / [4 x Peak 15-minute Flow Rate]). The use of a 15-minute PHF produces a more detailed analysis as compared to analyzing vehicles per hour. Existing PHFs have been used for all analysis scenarios. Per the HCM, PHF values over 0.95 often are indicative of high traffic volumes with capacity constraints on peak hour flows while lower PHF values are indicative of greater variability of flow during the peak hour. (Urban Crossroads, 2018c, p. 38)

### *California Department of Transportation (Caltrans)*

Per the Caltrans' *Guide for the Preparation of Traffic Impact Studies*, the traffic modeling and signal timing optimization software package Synchro (Version 10) has also been utilized to analyze signalized intersections under Caltrans' jurisdiction, which include interchange to arterial ramps (i.e. I-15 Freeway ramps at Nichols Road). (Urban Crossroads, 2018c, p. 38)

❑ Unsignalized Intersections

The City of Lake Elsinore requires the operations of unsignalized intersections be evaluated using the methodology described the HCM. The LOS rating is based on the weighted average control delay expressed in seconds per vehicle, as summarized in Table 4.16-5, *Unsignalized Intersection LOS Thresholds*. (Urban Crossroads, 2018c, p. 39)

**Table 4.16-5 Unsignalized Intersection LOS Thresholds**

| Description | Average Control Delay Per Vehicle (Seconds) | Level of Service, V/C ≤ 1.0 | Level of Service, V/C > 1.0 |
|---|---|---|---|
| Little or no delays. | 0 to 10.00 | A | F |
| Short traffic delays. | 10.01 to 15.00 | B | F |
| Average traffic delays. | 15.01 to 25.00 | C | F |
| Long traffic delays. | 25.01 to 35.00 | D | F |
| Very long traffic delays. | 35.01 to 50.00 | E | F |
| Extreme traffic delays with intersection capacity exceeded. | > 50.00 | F | F |

Source: HCM (6th Edition)
(Urban Crossroads, 2018c, Table 2-2)

At two-way or side-street stop-controlled intersections, LOS is calculated for each controlled movement and for the left turn movement from the major street, as well as for the intersection as a whole. For approaches composed of a single lane, the delay is computed as the average of all movements in that lane. For all-way stop controlled intersections, LOS is computed for the intersection as a whole. (Urban Crossroads, 2018c, p. 39)

### *2. Freeway Off-Ramp Queuing Analysis*

The study area for the TIA includes the freeway-to-arterial interchange of the I-15 Freeway at Nichols Road off-ramps. Consistent with Caltrans' requirements, the 95th percentile queuing of vehicles has been assessed at the off-ramps to determine potential queuing deficiencies at the freeway ramp intersections on Nichols Road. Specifically, the queuing analysis is utilized to identify any potential queuing and "spill back" onto the I-15 Freeway mainline from the offramps. (Urban Crossroads, 2018c, p. 39)

The traffic progression analysis tool and HCM intersection analysis program, Synchro, has been used to assess the potential deficiencies/needs of the intersections with traffic added from the proposed Project. Storage (turn-pocket) length recommendations at the ramps have been based upon the 95th percentile queue resulting from the Synchro progression analysis. The queue length reported is for the lane with the highest queue in the lane group. (Urban Crossroads, 2018c, p. 39)

There are two footnotes which appear on the Synchro outputs. One footnote indicates if the 95th percentile cycle exceeds capacity. Traffic is simulated for two complete cycles of the 95th percentile traffic in Synchro in order to account for the effects of spillover between cycles. In practice, the 95th percentile queue shown will rarely be exceeded and the queues shown with the footnote are acceptable for the design of storage bays. The other footnote indicates whether or not the volume for the 95th percentile queue is metered by an upstream

signal. In many cases, the 95th percentile queue will not be experienced and may potentially be less than the 50th percentile queue due to upstream metering. If the upstream intersection is at or near capacity, the 50th percentile queue represents the maximum queue experienced. (Urban Crossroads, 2018c, pp. 39-40)

A vehicle is considered queued whenever it is traveling at less than 10 feet/second. A vehicle will only become queued when it is either at the stop bar or behind another queued vehicle. Although only the 95th percentile queue has been reported in the tables, the 50th percentile queue can be found in the TIA appendix alongside the 95th percentile queue for each ramp location. The 50th percentile maximum queue is the maximum back of queue on a typical cycle during the peak hour, while the 95th percentile queue is the maximum back of queue with 95th percentile traffic volumes during the peak hour. The 50th percentile or average queue represents the typical queue length for peak hour traffic conditions, while the 95th percentile queue is derived from the average queue plus 1.65 standard deviations. The 95th percentile queue is not necessarily ever observed, it is simply based on statistical calculations. (Urban Crossroads, 2018c, p. 40)

### *3. Traffic Signal Warrant Analysis Methodology*

The term "signal warrants" refers to the list of established criteria used by Caltrans and other public agencies to quantitatively justify or ascertain the potential need for installation of a traffic signal at an otherwise unsignalized intersection. The Project's TIA uses the signal warrant criteria presented in the latest edition of the Caltrans California Manual on Uniform Traffic Control Devices (CA MUTCD). (Urban Crossroads, 2018c, p. 40)

The signal warrant criteria for Existing study area intersections are based upon several factors, including volume of vehicular and pedestrian traffic, frequency of accidents, and location of school areas. The CA MUTCD indicates that the installation of a traffic signal should be considered if one or more of the signal warrants are met. Specifically, the TIA utilizes the Peak Hour Volume-based Warrant 3 as the appropriate representative traffic signal warrant analysis for existing traffic conditions. Warrant 3 is appropriate to use for the Project's TIA because it provides specialized warrant criteria for intersections with rural characteristics (e.g. located in communities with populations of less than 10,000 persons or with adjacent major streets operating above 40 miles per hour). For the purposes of analysis, the speed limit was the basis for determining whether Urban or Rural warrants were used for a given intersection. (Urban Crossroads, 2018c, p. 40)

Table 4.16-6, *Traffic Signal Warrant Analysis Locations*, shows the unsignalized study area intersections for which traffic signal warrant analyses were performed during the peak weekday conditions wherein the Project is anticipated to contribute the highest trips. (Urban Crossroads, 2018c, p. 40)

It is important to note that a signal warrant defines the minimum condition under which the installation of a traffic signal might be warranted. Meeting this threshold condition does not require that a traffic control signal be installed at a particular location, but rather, that other traffic factors and conditions be evaluated in order to determine whether the signal is truly justified. It should also be noted that signal warrants do not necessarily correlate with LOS. An intersection may satisfy a signal warrant condition and operate at or above acceptable LOS or operate below acceptable LOS and not meet a signal warrant. (Urban Crossroads, 2018c, p. 41)

**Table 4.16-6 Traffic Signal Warrant Analysis Locations**

| ID | Intersection Location | Jurisdiction |
|---|---|---|
| 3 | Alberhill Ranch Rd. & Nichols Rd. | Lake Elsinore |
| 5 | Gunnerson St./Strickland Av. & Riverside Dr. (SR-74) | Lake Elsinore, Caltrans |
| 6 | Collier Av. & Nichols Rd. | Lake Elsinore |
| 9 | I-15 Southbound Ramps & Nichols Rd. | Lake Elsinore, Caltrans |
| 10 | I-15 Northbound Ramps & Nichols Rd. | Lake Elsinore, Caltrans |
| 11 | A Street & Nichols Rd. | Lake Elsinore |
| 12 | B Street & Nichols Rd. | Lake Elsinore |
| 13 | B Street & F Street – Future Intersection | Lake Elsinore |
| 14 | B Street & H Street – Future Intersection | Lake Elsinore |
| 15 | K Street & B Street – Future Intersection | Lake Elsinore |
| 16 | El Toro Rd. & B Street – Future Intersection | Lake Elsinore, County of Riverside |
| 17 | El Toro Rd. & Tereticornis Av. | County of Riverside |
| 18 | El Toro Rd. & Carmela Ct. | County of Riverside |

(Urban Crossroads, 2018c, Table 2-3)

### *4. Freeway Mainline Segment Analysis Methodology*

Consistent with recent Caltrans guidance and because deficiencies to freeway segments dissipate with distance from the point of State Highway System (SHS) entry, quantitative study of freeway segments beyond those immediately adjacent to the point of entry is not required. As such, the Project's TIA has evaluated the freeway segments along the I-15 Freeway where the Project is anticipated to contribute 50 or more peak hour trips. (Urban Crossroads, 2018c, p. 41)

The freeway system in the study area has been broken into segments defined by the freeway-to-arterial interchange locations. The freeway segments have been evaluated in the Project's TIA based upon peak hour directional volumes. The freeway segment analysis is based on the methodology described in the HCM and performed using Highway Capacity Software (HCS) 7 software. The performance measure preferred by Caltrans to calculate LOS is density. Density is expressed in terms of passenger cars per mile per lane. Table 4.16-7, *Description of Freeway Mainline LOS*, illustrates the freeway segment LOS descriptions for each density range utilized for the analysis. (Urban Crossroads, 2018c, pp. 41-42)

The number of lanes for existing baseline conditions has been obtained from field observations conducted by Urban Crossroads in April 2018. These existing freeway geometrics have been utilized for Existing, Existing plus Project (E+P), Existing plus Ambient plus Project (EAP), and Existing plus Ambient plus Project plus Cumulative (EAPC) conditions. (Urban Crossroads, 2018c, p. 42)

The I-15 Freeway mainline volume data were obtained from the Caltrans Performance Measurement System (PeMS) website for the segments of the I-15 Freeway interchange, north of Nichols Road. The data was obtained from February 2018. In an effort to conduct a conservative analysis, the maximum value observed within the three-day period was utilized for the weekday morning (AM) and weekday evening (PM) peak

hours. In addition, truck traffic, represented as a percentage of total traffic, has been utilized for the purposes of analysis in an effort to not overstate traffic volumes and peak hour deficiencies. (Urban Crossroads, 2018c, p. 42)

**Table 4.16-7 Description of Freeway Mainline LOS**

| Level of Service | Description | Density Range (pc/mi/ln)[1] |
|---|---|---|
| A | Free-flow operations in which vehicles are relatively unimpeded in their ability to maneuver within the traffic stream. Effects of incidents are easily absorbed. | 0.0 – 11.0 |
| B | Relative free-flow operations in which vehicle maneuvers within the traffic stream are slightly restricted. Effects of minor incidents are easily absorbed. | 11.1 – 18.0 |
| C | Travel is still at relative free-flow speeds, but freedom to maneuver within the traffic stream is noticeably restricted. Minor incidents may be absorbed, but local deterioration in service will be substantial. Queues begin to form behind significant blockages. | 18.1 – 26.0 |
| D | Speeds begin to decline slightly and flows and densities begin to increase more quickly. Freedom to maneuver is noticeably limited. Minor incidents can be expected to create queuing as the traffic stream has little space to absorb disruptions. | 26.1 – 35.0 |
| E | Operation at capacity. Vehicles are closely spaced with little room to maneuver. Any disruption in the traffic stream can establish a disruption wave that propagates throughout the upstream traffic flow. Any incident can be expected to produce a serious disruption in traffic flow and extensive queuing. | 35.1 – 45.0 |
| F | Breakdown in vehicle flow. | >45.0 |

[1] pc/mi/ln = passenger cars per mile per lane. Source: HCM (6th Edition)

(Urban Crossroads, 2018c, Table 2-4)

### *5. Freeway Merge/Diverge Ramp Junction Analysis*

The freeway system in the study area has been broken into segments defined by freeway-to-arterial interchange locations resulting in two existing on and off ramp locations. Although the HCM indicates the influence area for a merge/diverge junction is 1,500 feet, the analysis presented in this traffic study has been performed at all ramp locations with respect to the nearest on or off ramp at each interchange in an effort to be consistent with Caltrans guidance/comments on other projects Urban Crossroads has worked on in the region. (Urban Crossroads, 2018c, p. 42)

The merge/diverge analysis is based on the HCM Ramps and Ramp Junctions analysis method and performed using HCS7 software. The measure of effectiveness (reported in passenger car/mile/lane) are calculated based on the existing number of travel lanes, number of lanes at the on and off ramps both at the analysis junction and at upstream and downstream locations (if applicable) and acceleration/deceleration lengths at each merge/diverge point. Table 4.16-8, *Description of Freeway Merge and Diverge LOS*, presents the merge/diverge area level of service descriptions for each density range utilized for the analysis. (Urban Crossroads, 2018c, pp. 42-43)

**Table 4.16-8 Description of Freeway Merge and Diverge LOS**

| Level of Service | Density Range (pc/mi/ln)[1] |
|---|---|
| A | ≤10.0 |
| B | 10.0 – 20.0 |
| C | 20.0 – 28.0 |
| D | 28.0 – 35.0 |
| E | >35.0 |
| F | Demand Exceeds Capacity |

[1] pc/mi/ln = passenger cars per mile per lane. Source: HCM (6th Edition)

(Urban Crossroads, 2018c, Table 2-5)

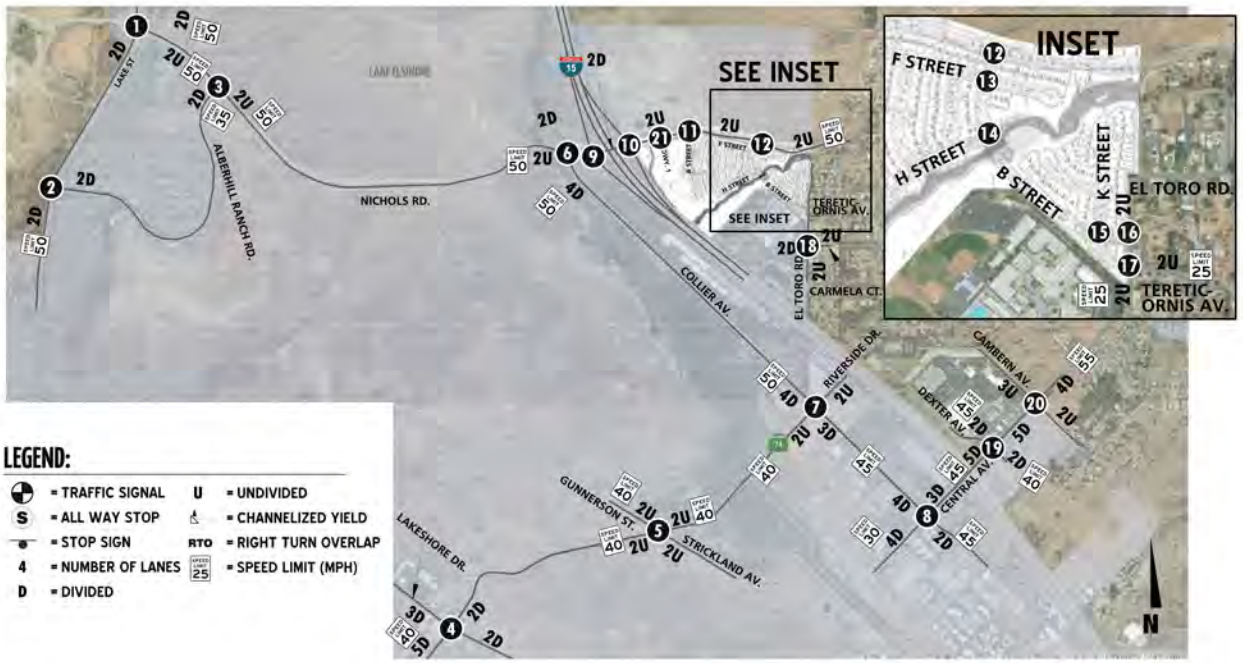
Similar to the basic freeway segment analysis, the I-15 Freeway mainline volume data were obtained from the Caltrans-maintained PeMS website for the segments of the I-15 Freeway interchange, north of Nichols Road. The ramp data (per the count data presented in Appendix 3.1 of the Project's TIA) were then utilized to flow conserve the mainline volumes to determine the remaining I-15 Freeway mainline segment volumes. Flow conservation checks ensure that traffic flows from north to south (and vice versa) of the interchange area with no unexplained loss of vehicles. The data was obtained from February 2018. In an effort to conduct a conservative analysis, the maximum value observed within the three-day period was utilized for the weekday morning (AM) and weekday evening (PM) peak hours. In addition, truck traffic, represented as a percentage of total traffic, has been utilized for the purposes of analysis in an effort to not overstate traffic volumes and peak hour deficiencies. As such, actual vehicles (as opposed to passenger car equivalent [PCE] volumes) have been utilized for the purposes of the freeway ramp junction (merge/diverge) analysis. (Urban Crossroads, 2018c, p. 43)

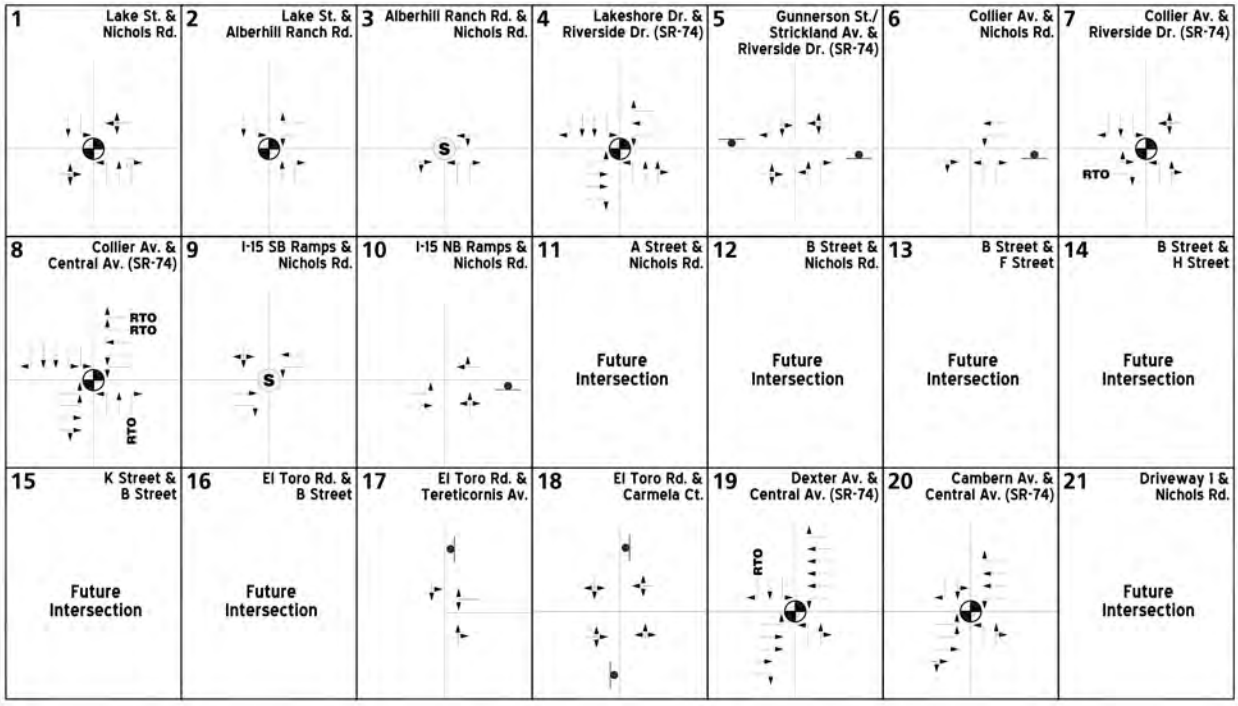
## 4.16.3 EXISTING CONDITIONS

The Project site is located in the northeastern portion of the City of Lake Elsinore, immediately east of Interstate 15 (I-15) and south of Nichols Road. The Project site is currently vacant and undeveloped. There are no roadways on the Project site under existing conditions, although the northern portions of the site are undergoing reclamation activities. A description of the existing circulation network in the Project area is provided below.

### *A. Existing Circulation Network*

Pursuant to the agreement with City of Lake Elsinore staff (Appendix 1.1 to the Project's TIA, included as EIR *Technical Appendix L*), the study area includes a total of 21 intersections as shown previously on Figure 4.16-1 where the Project is anticipated to contribute 50 or more peak hour trips. Figure 4.16-2, *Existing Number of Through Lanes and Intersection Controls*, illustrates the study area intersections located near the proposed Project and identifies the number of through traffic lanes for existing roadways and intersection traffic controls. (Urban Crossroads, 2018c, p. 47)




*Source(s): Urban Crossroads (08-14-2018)*

Figure 4.16-2
**EXISTING NUMBER OF THROUGH LANES AND INTERSECTION CONTROLS**

NOT TO SCALE

Expressways are 8 lanes with a minimum right-of-way of 220-feet. These highways are primarily for through traffic where traffic volumes exceed six-lane capacities. Access from other streets or highways shall be limited to approximately one-quarter mile intervals. The following study area roadway within the City of Lake Elsinore is classified as an Urban Arterial Highway: (Urban Crossroads, 2018c, p. 47)

- Central Avenue (SR-74)

Urban Arterial Highways are 6 lanes with a minimum right-of-way of 120-feet. These highways are primarily for through traffic where traffic volumes exceed four-lane capacities. Access from other streets or highways shall be limited to approximately one-quarter mile intervals. The following study area roadways within the City of Lake Elsinore are classified as an Urban Arterial Highway: (Urban Crossroads, 2018c, p. 47)

- Nichols Road (between Collier Avenue and El Toro Road)
- Riverside Drive (SR-74) (between Lincoln Street and Collier Avenue)
- Lake Street

Major Highways are 4 lanes with a minimum right-of-way of 100-feet. These highways are intended to serve property zoned for major industrial and commercial uses, or to serve through traffic. Intersections with other streets or highways may be limited to approximately 660-foot intervals. The following study area roadway within the City of Lake Elsinore is classified as a Major Highway: (Urban Crossroads, 2018c, p. 53)

- Collier Avenue (between Nichols Road and Riverside Drive)
- Nichols Road (between Lake Street and Collier Avenue)

### *B. Existing (2018) Traffic Counts*

The intersection LOS analysis is based on the traffic volumes observed during the peak hour conditions using traffic count data collected in February and April 2018. The following peak hours were selected for analysis: (Urban Crossroads, 2018c, p. 53)

- Weekday AM Peak Hour (peak hour between 7:00 AM and 9:00 AM)
- Weekday PM Peak Hour (peak hour between 4:00 PM and 6:00 PM)

The weekday AM and weekday PM peak hour count data is representative of typical weekday peak hour traffic conditions in the study area. There were no observations made in the field that would indicate atypical traffic conditions on the count dates, such as construction activity or detour routes and near-by schools were in session and operating on normal schedules. The raw manual peak hour turning movement traffic count data sheets are included in Appendix 3.1 to the Project's TIA (*Technical Appendix L*). These raw turning volumes have been flow conserved between intersections with limited access, no access and where there are currently no uses generating traffic (e.g., between ramp-to-arterial intersections, etc.). (Urban Crossroads, 2018c, p. 57)

The traffic counts were collected in February and April 2018. Existing weekday average daily traffic (ADT) volumes on arterial highways throughout the study area are shown on Figure 4.16-3, *Existing (2018) Traffic*

*Volumes*. Where actual 24-hour tube count data was not available, Existing ADT volumes were based upon factored intersection peak hour counts collected by Urban Crossroads, Inc. using the following formula for each intersection leg: (Urban Crossroads, 2018c, p. 57)

Weekday PM Peak Hour (Approach Volume + Exit Volume) x 11.1793 = Leg Volume

A comparison of the PM peak hour and daily traffic volumes of various roadway segments within the study area indicated that the peak-to-daily relationship is approximately 8.945 percent. As such, the above equation utilizing a factor of 11.1793 estimates the ADT volumes on the study area roadway segments assuming a peak-to-daily relationship of approximately 8.945 percent (i.e., 1/0.08945 = 11.1793) and was assumed to sufficiently estimate average daily traffic (ADT) volumes for planning-level analyses. Existing weekday AM and weekday PM peak hour intersection volumes are also shown on Figure 4.16-3. (Urban Crossroads, 2018c, p. 57)

### C. *Existing Conditions Intersection Operations Analysis*

Existing peak hour traffic operations have been evaluated for the study area intersections based on the analysis methodologies presented in subsection 4.16.2 above. The intersection operations analysis results are summarized in Table 4.16-9, *Intersection Analysis for Existing (2018) Conditions*, which indicates that the following existing study area intersections are currently operating at an unacceptable LOS during the peak hours: (Urban Crossroads, 2018c, p. 57)

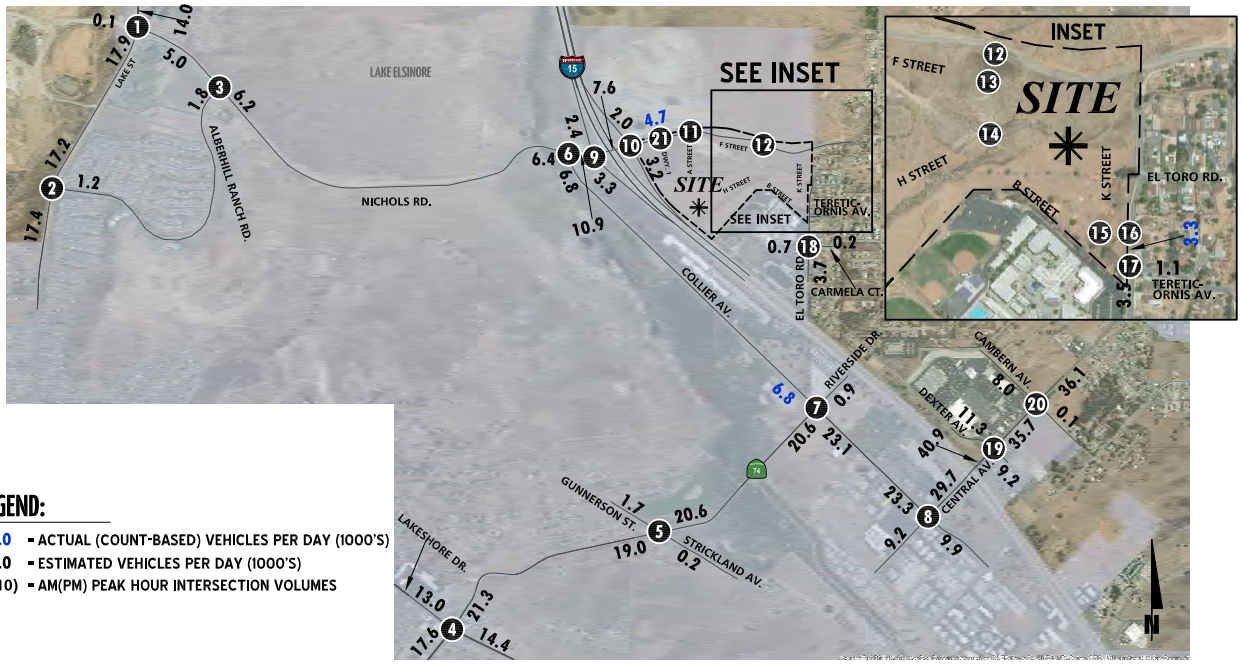
- Gunnerson Street/Strickland Avenue & Riverside Drive (#5) – LOS F AM and PM peak hours
- I-15 Northbound Ramps & Nichols Road (#10) – LOS F AM peak hour only
- El Toro Road & Tereticornis Avenue (#17) – LOS F AM peak hour only
- El Toro Road & Carmela Court (#18) – LOS F AM peak hour only

The two intersections of Tereticornis Avenue and Carmela Court are in close proximity to the existing Temescal Canyon High School on El Toro Road and have been evaluated with the AM existing PHF from the raw count worksheet and also with a normalized peak hour factor of 0.92. Lower peak hour factors during the AM peak hour (morning drop-off) occur near schools due to the peak 10-15 minute traffic flows during the AM peak hour, which are much higher in comparison to the other 15-minute periods within the hour. (Urban Crossroads, 2018c, p. 57)

Although the intersection of El Toro Road and Tereticornis Avenue is anticipated to operate at an unacceptable LOS during the AM peak hour, it is anticipated to operate at an acceptable LOS with a normalized PHF. The intersection operations analysis worksheets are included in Appendix 3.2 of the Project's TIA (*Technical Appendix L*). (Urban Crossroads, 2018c, p. 60)

### D. *Existing Conditions Traffic Signal Warrants Analysis*

Traffic signal warrants for Existing traffic conditions are based on existing peak hour intersection turning volumes. The following study area intersections currently warrant a traffic signal for Existing traffic conditions: (Urban Crossroads, 2018c, p. 60)




**LEGEND:**

10.0 = ACTUAL (COUNT-BASED) VEHICLES PER DAY (1000'S)
10.0 = ESTIMATED VEHICLES PER DAY (1000'S)
10(10) = AM(PM) PEAK HOUR INTERSECTION VOLUMES

| | | |
|---|---|---|
| 1 Lake St. & Nichols Rd.<br>4(1) ← 272(845) ← 17(29)<br>→ 38(18) ← 5(0) ← 177(227)<br>15(1) → 4(6) → 0(1)<br>0(1) ↑ 674(362) ↑ 347(164) | 2 Lake St. & Alberhill Ranch Rd.<br>414(1012) → 18(23) → 47(19) ← 57(35)<br>1013(481) ↑ 48(30) | 3 Alberhill Ranch Rd. & Nichols Rd.<br>← 181(237) ← 35(74)<br>359(183) → 16(18) → 38(9) ← 69(61) |
| 4 Lakeshore Dr. & Riverside Dr. (SR-74)<br>9(15) → 171(308) → 199(265) → 337(298) ← 529(593) ← 129(117)<br>19(29) → 443(476) → 141(263) → 266(194) ↑ 293(251) ↑ 109(156) | 5 Gunnerson St./ Strickland Av. & Riverside Dr. (SR-74)<br>5(2) → 3(1) → 46(28) → 35(115) ← 620(855) ← 2(6)<br>0(2) → 827(833) → 3(4) → 0(0) ↑ 2(0) ↑ 11(6) | 6 Collier Av. & Nichols Rd.<br>← 184(249) ← 93(222)<br>403(187) → 32(54) → 37(78) ↑ 91(254) |
| 7 Collier Av. & Riverside Dr. (SR-74)<br>45(92) → 52(178) → 1(3) → 2(7) ← 1(17) ← 5(20)<br>74(99) → 10(11) → 800(757) → 611(867) ↑ 71(222) ↑ 10(19) | 8 Collier Av. & Central Av. (SR-74)<br>11(31) → 57(132) → 757(902) → 591(712) ← 275(191) ← 499(203)<br>33(187) → 87(315) → 29(50) → 29(49) ↑ 53(117) ↑ 274(336) | 9 I-15 SB Ramps & Nichols Rd.<br>62(132) → 6(2) → 164(78) → ← 215(339) ← 56(25)<br>228(239) → 267(268) → |
| 10 I-15 NB Ramps & Nichols Rd.<br>→ 89(39) ← 131(112)<br>74(140) → 318(177) → 140(252) ↑ 3(1) ↑ 108(30) | 11 A Street & Nichols Rd.<br>Future Intersection | 12 B Street & Nichols Rd.<br>Future Intersection |
| 13 B Street & F Street<br>Future Intersection | 14 B Street & H Street<br>Future Intersection | 15 K Street & B Street<br>Future Intersection |
| 16 El Toro Rd. & B Street<br>Future Intersection | 17 El Toro Rd. & Tereticornis Av.<br>413(150) → 18(48) → 23(17) ← 166(12)<br>183(126) ↑ 65(24) | 18 El Toro Rd. & Carmela Ct.<br>228(10) → 343(146) → 8(6) → 15(1) ← 0(0) ← 6(5)<br>129(14) → 0(0) → 263(29) → 166(13) ↑ 104(135) ↑ 6(4) |
| 19 Dexter Av. & Central Av. (SR-74)<br>372(315) → 141(91) → 68(67) → 186(67) ← 1373(1112) ← 121(156)<br>227(338) → 886(1617) → 124(161) → 99(119) ↑ 251(130) ↑ 87(168) | 20 Cambern Av. & Central Av. (SR-74)<br>86(83) → 4(3) → 126(230) → 111(143) ← 1605(1119) ← 1(0)<br>123(252) → 1023(1736) → 1(1) → 3(1) ↑ 2(3) ↑ 1(1) | 21 Driveway 1 & Nichols Rd.<br>Future Intersection |

*Source(s): Urban Crossroads (08-14-2018)*

Figure 4.16-3

NOT TO SCALE

**EXISTING (2018) TRAFFIC VOLUMES**

## Table 4.16-9 Intersection Analysis for Existing (2018) Conditions

| # | Intersection | Traffic Control[3] | Intersection Approach Lanes[1] | | | | | | | | | | | | Delay[2] (secs.) | | LOS[4] | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Northbound | | | Southbound | | | Eastbound | | | Westbound | | | | | | |
| | | | L | T | R | L | T | R | L | T | R | L | T | R | AM | PM | AM | PM |
| 1 | Lake St. & Nichols Rd. | TS | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 16.3 | 25.4 | B | C |
| 2 | Lake St. & Alberhill Ranch Rd. | TS | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 12.4 | 7.4 | B | A |
| 3 | Alberhill Ranch Rd. & Nichols Rd. | AWS | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 11.4 | 9.7 | B | A |
| 4 | Lakeshore Dr. & Riverside Dr. (SR-74) | TS | 1 | 2 | 0 | 1 | 2 | 1 | 1 | 2 | 1 | 1 | 1 | 1 | 44.9 | 42.5 | D | D |
| 5 | Gunnerson St./Strickland Av. & Riverside Dr. (SR-74) | CSS | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | **81.0** | **120.2** | **F** | **F** |
| 6 | Collier Av. & Nichols Rd. | CSS | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 20.5 | 28.9 | C | D |
| 7 | Collier Av. & Riverside Dr. (SR-74) | TS | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1> | 0 | 1 | 0 | 14.9 | 24.7 | B | C |
| 8 | Collier Av. & Central Av. (SR-74) | TS | 1 | 1 | 1> | 2 | 2 | 1 | 2 | 2 | 0 | 2 | 1 | 2> | 34.2 | 33.0 | C | D |
| 9 | I-15 Southbound Ramps & Nichols Rd. | AWS | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 15.4 | 13.4 | C | B |
| 10 | I-15 Northbound Ramps & Nichols Rd. | CSS | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | **>100.0** | 29.9 | **F** | D |
| 11 | A St. & Nichols Rd. | | Future Intersection | | | | | | | | | | | | | | | |
| 12 | B St. & Nichols Rd. | | Future Intersection | | | | | | | | | | | | | | | |
| 13 | B St. & F St. | | Future Intersection | | | | | | | | | | | | | | | |
| 14 | B St. & H St. | | Future Intersection | | | | | | | | | | | | | | | |
| 15 | K St. & B St. | | Future Intersection | | | | | | | | | | | | | | | |
| 16 | El Toro Rd. & B St. | | Future Intersection | | | | | | | | | | | | | | | |
| 17 | El Toro Rd. & Tereticornis Av. | CSS | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | **>100.0** | 10.2 | **F** | B |
| | *With Normalized PHF[5,6]* | CSS | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 22.4 | -- | C | -- |
| 18 | El Toro Rd. & Carmela Ct. | CSS | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | **>100.0** | 11.5 | **F** | B |
| | *With Normalized PHF[5,6]* | CSS | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | **>100.0** | -- | **F** | -- |
| 19 | Dexter Av. & Central Av. (SR-74) | TS | 1 | 1 | 0 | 1 | 1 | 1> | 1 | 3 | 1 | 1 | 4 | 1 | 39.6 | 46.5 | D | D |
| 20 | Cambern Av. & Central Av. (SR-74) | TS | 1 | 1 | 0 | 0 | 1 | 1 | 2 | 2 | 0 | 1 | 2 | 1 | 26.3 | 27.2 | C | C |
| 21 | Driveway 1 & Nichols Rd. | | Future Intersection | | | | | | | | | | | | | | | |

* **BOLD** = LOS does not meet the applicable jurisdictional requirements (i.e., unacceptable LOS).

[1] When a right turn is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside the through lanes.

L = Left; T = Through; R = Right; d = Defacto Right Turn Lane; > = Right Turn Overlap Phasing

[2] Per the Highway Capacity Manual (6th Edition), overall average intersection delay and level of service are shown for intersections with a traffic signal or all way stop control. For intersections with cross street-stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown.

[3] CSS = Cross-street Stop; AWS = All-way Stop; TS = Traffic Signal

[4] LOS = Level of Service

[5] The two intersections of Tereticornis Avenue and Carmela Court are in close proximity to the existing Temescal Canyon High School on El Toro Road and have been evaluated with the AM existing peak hour factor from the raw count worksheet and also with a normalized peak hour factor of 0.92. Lower peak hour factors during the AM peak hour (morning drop-off) occur near schools due to the peak 10-15 minute traffic flows during the AM peak hour, which are much higher in comparison to the other 15-minute periods within the hour.

[6] PHF = Peak Hour Factor

(Urban Crossroads, 2018c, Table 3-1)

- Collier Avenue & Nichols Road (#6)
- I-15 Southbound Ramps & Nichols Road (#9)
- I-15 Northbound Ramps & Nichols Road (#10)
- El Toro Road & Carmela Court (#18)

Existing conditions traffic signal warrant analysis worksheets are provided in Appendix 3.3 of the Project's TIA (*Technical Appendix L*). (Urban Crossroads, 2018c, p. 60)

### *E. Existing Conditions Off-Ramp Queuing Analysis*

A queuing analysis was performed for the off-ramps at the I-15 Freeway and Nichols Road interchange to assess vehicle queues for the off ramps that may potentially result in deficient peak hour operations at the ramp-to-arterial intersections and may potentially "spill back" onto the I-15 Freeway mainline. Queuing analysis findings are presented in Table 4.16-10, *Peak Hour Freeway Off-Ramp Queuing Summary for Existing*

*(2018) Conditions*. It is important to note that off-ramp lengths are consistent with the measured distance between the intersection and the freeway mainline. As shown on Table 4.16-10, there are no movements that are currently experiencing queuing issues during the weekday AM or weekday PM peak 95th percentile traffic flows. Worksheets for Existing traffic conditions off-ramp queuing analysis are provided in Appendix 3.4 of the Project's TIA (*Technical Appendix L*). (Urban Crossroads, 2018c, p. 60)

**Table 4.16-10 Peak Hour Freeway Off-Ramp Queuing Summary for Existing (2018) Conditions**

| Intersection | Movement | Available Stacking Distance (Feet) | 95th Percentile Queue (Feet)[2] | | Acceptable?[1] | |
|---|---|---|---|---|---|---|
| | | | AM Peak Hour | PM Peak Hour | AM | PM |
| I-15 SB Off-Ramp & Nichols Rd. | SBL/T/R | 1,600 | 80 | 43 | Yes | Yes |
| I-15 NB Off-Ramp & Nichols Rd. | NBL/T/R | 1,530 | 495 | 128 | Yes | Yes |

[1] Stacking Distance is acceptable if the required stacking distance is less than or equal to the stacking distance provided.
[2] Maximum queue length for the approach reported.
(Urban Crossroads, 2018c, Table 3-2)

### F. *Existing Conditions Basic Freeway Segment Analysis*

Existing mainline directional volumes for the weekday AM and PM peak hours are provided on Exhibit 3-11 of the Project's TIA (*Technical Appendix L*). As shown on Table 4.16-11, *Basic Freeway Segment Analysis for Existing (2018) Conditions*, the basic freeway segments analyzed for the Project's TIA were found to operate at an acceptable LOS during the peak hours. Existing basic freeway segment analysis worksheets are provided in Appendix 3.5 of the Project's TIA. (Urban Crossroads, 2018c, p. 60)

### G. *Existing Conditions Freeway Merge/Diverge Analysis*

Ramp merge and diverge operations were also evaluated for Existing conditions and the results of this analysis are presented in Table 4.16-12, *Freeway Ramp Junction Merge/Diverge Analysis for Existing (2018) Conditions*. As shown in Table 3-4, the freeway ramp merge and diverge areas currently operate at LOS D or better. Existing freeway ramp junction operations analysis worksheets are provided in Appendix 3.6 of the Project's TIA (*Technical Appendix L*). (Urban Crossroads, 2018c, p. 60)

### H. *Bicycle and Pedestrian Facilities*

In an effort to promote alternative modes of transportation, the City of Lake Elsinore also includes a trails and bikeway system. The trails and bikeway system, shown on TIA Exhibits 3-6 and 3-7 (*Technical Appendix L*), shows the proposed trails are connected with major features within the City and County. There is a regional trail along the east side of the I-15 Freeway and a community trail along Nichols Road within the study area. Class II bike lanes are proposed for Nichols Road within the study area. (Urban Crossroads, 2018c, p. 53)

Field observations conducted by Urban Crossroads in April 2018 indicate nominal pedestrian and bicycle activity within the study area. There are limited pedestrian and bicycle facilities within the study area. The only sidewalk provided is along Nichols Road to the west of the I-15 Freeway. (Urban Crossroads, 2018c, p. 53)

**Table 4.16-11 Basic Freeway Segment Analysis for Existing (2018) Conditions**

| Freeway | Direction | Mainline Segment | Lanes[1] | Density[2] | | LOS[3] | |
|---|---|---|---|---|---|---|---|
| | | | | AM | PM | AM | PM |
| I-15 Freeway | Southbound | North of Nichols Rd. | 3 | 26.7 | 32.4 | D | D |
| | | South of Nichols Rd. | 3 | 27.4 | 33.2 | D | D |
| | Northbound | North of Nichols Rd. | 3 | 21.9 | 16.7 | C | B |
| | | South of Nichols Rd. | 3 | 22.4 | 17.1 | C | B |

[1] Number of lanes are in the specified direction and is based on existing conditions.

[2] Density is measured by passenger cars per mile per lane (pc/mi/ln).

[3] LOS = Level of Service

(Urban Crossroads, 2018c, Table 3-3)

**Table 4.16-12 Freeway Ramp Junction Merge/Diverge Analysis for Existing (2018) Conditions**

| Freeway | Direction | Ramp or Segment | Lanes on Freeway[1] | AM Peak Hour | | PM Peak Hour | |
|---|---|---|---|---|---|---|---|
| | | | | Density[2] | LOS[3] | Density[2] | LOS[3] |
| I-15 Freeway | Southbound | Off-Ramp at Nichols Rd. | 3 | 27.2 | D | 31.2 | D |
| | | On-Ramp at Nichols Rd. | 3 | 29.5 | C | 34.3 | D |
| | Northbound | On-Ramp at Nichols Rd. | 3 | 24.1 | C | 18.5 | B |
| | | Off-Ramp at Nichols Rd. | 3 | 23.7 | C | 18.4 | C |

[1] Number of lanes are in the specified direction and is based on existing conditions.

[2] Density is measured by passenger cars per mile per lane (pc/mi/ln).

[3] LOS = Level of Service

(Urban Crossroads, 2018c, Table 3-4)

## *I. Transit Service*

The study area is currently served by the Riverside Transit Authority (RTA), a public transit agency serving the unincorporated Riverside County region. There are currently no existing bus routes that serve the roadways within the study area in close proximity to the proposed Project (see TIA Exhibit 3-8, included as EIR *Technical Appendix L*). The closest transit lines run along the I-15 Freeway, Nichols Road to the west of the I-15 Freeway, Collier Avenue, Riverside Avenue (SR-74), and Central Avenue (SR-74). Transit service is

reviewed and updated by RTA periodically to address ridership, budget and community demand needs. Changes in land use can affect these periodic adjustments which may lead to either enhanced or reduced service where appropriate. (Urban Crossroads, 2018c, p. 53)

## 4.16.4 APPLICABLE REGULATORY REQUIREMENTS

### *A. SCAG Regional Transportation Plan*

The Southern California Association of Governments (SCAG) is a regional agency established pursuant to California Government Code § 6500, also referred to as the Joint Powers Authority law. SCAG is designated as a Council of Governments (COG), a Regional Transportation Planning Agency (RTPA), and a Metropolitan Planning Organization (MPO). The Project site is within SCAG's regional authority. On April 7, 2016, SCAG adopted the *2016-2040 Regional Transportation Plan (RTP)/Sustainable Communities Strategy (SCS)* with goals to: 1) Align the plan investments and policies with improving regional economic development and competitiveness; 2) Maximize mobility and accessibility for all people and goods in the region; 3) Ensure travel safety and reliability for all people and goods in the region; 4) Preserve and ensure a sustainable regional transportation system; 5) Maximize the productivity of our transportation system; 6) Protect the environment and health of our residents by improving air quality and encouraging active transportation (e.g., bicycling and walking); 7) Actively encourage and create incentives for energy efficiency, where possible; 8) Encourage land use and growth patterns that facilitate transit and active transportation; and 9) Maximize the security of the regional transportation system through improved system monitoring, rapid recovery planning, and coordination with other security agencies (SCAG, 2016). Performance measures and funding strategies also are included to ensure that the adopted goals are achieved through implementation of the RTP.

### *B. County of Riverside Congestion Management Program*

The Riverside County Transportation Commission (RCTC) adopted its current Congestion Management Plan (CMP) in December 2011. The purpose of the CMP is to more directly link land use, transportation, and air quality, thereby prompting reasonable growth management programs that will effectively utilize new transportation funds, alleviate traffic congestion and related impacts, and improve air quality. Additionally, the CMP establishes a minimum LOS of E for CMP roadway facilities within Riverside County. (RCTC, 2011, p. ES-1) There are two CMP facilities within the Project's study area: I-15 and State Route 74 (SR-74). As indicated in Table 4.16-1, there are eight study area intersections that are identified as Riverside County CMP facilities. These intersections are listed below (Urban Crossroads, 2018c, Table 1-1):

- Lakeshore Dr. and Riverside Dr. (SR-74) (#4)
- Gunnerson St./Strickland Av. Ant Riverside Drive (SR-74) (#5)
- Collier Av. And Riverside Dr. (SR-74) (#7)
- Collier Av. And Central Av. (SR-74) (#8)
- I-15 Southbound Ramps and Nichols Road (#9)
- I-15 Northbound Ramps and Nichols Road (#10)
- Dexter Av. And Central Av. (SR-74) (#19)
- Cambern Av. And Central Av (SR-74) (#20)

### C. *City of Lake Elsinore General Plan Circulation Element*

As noted previously, the Project site is located within the City of Lake Elsinore. The roadway classifications and planned (ultimate) roadway cross-sections of the major roadways within the study area are identified by the City of Lake Elsinore General Plan Circulation Element and Riverside County General Plan Circulation Element. Exhibit 3-2 of the Project's TIA (*Technical Appendix L*) shows the City of Lake Elsinore General Plan Circulation Element, and TIA Exhibit 3-3 illustrates the City of Lake Elsinore General Plan roadway cross-sections. TIA Exhibit 3-4 shows the Riverside County General Plan Circulation Element, and TIA Exhibit 3-5 illustrates the Riverside County General Plan roadway cross-sections.

### D. *Western Riverside County Association of Governments Transportation Uniform Mitigation Fee*

The Western Riverside Council of Governments (WRCOG) established a consolidated Transportation Uniform Mitigation Fee (TUMF) program for all of western Riverside County, which commenced in 2003. The establishment of TUMF was based on the desire to establish a single, uniform fee program to mitigate the cumulative impacts of new development on the sub-region's arterial highway system rather than having multiple and potentially uncoordinated fee programs across the region. WRCOG is responsible for establishing and updating TUMF payment rates, based on a TUMF Program Nexus Study, which is periodically updated to consider the impact of future development on the subregion's system of highways and arterial roads. Between 2003 when TUMF commenced and June 30, 2016, WRCOG had received $686,720,128 in revenues through the TUMF program. The City of Lake Elsinore is located in the TUMF's Southwest Zone, along with the cities of Canyon Lake, Murrieta, Temecula, and Wildomar, and parts of unincorporated Riverside County. Between 2003 and June 2016 the Southwest Zone received $218,623,188 in revenues through the TUMF program, of which projects in the City of Lake Elsinore are reported to have contributed $21,090,079. (WRCOG, 2016, p. 12) During this time, 88 TUMF-funded improvements have been completed and 44 projects are underway which demonstrates that TUMF is an effective program (WRCOG, 2016, p. 17). To-date, 13 TUMF-funded projects are included in the adopted Transportation Improvement Plan (TIP), of which four are in the planning stage, two are in the engineering stage, and four projects are under construction, and three projects have been completed, which represent $27 million in TUMF investment. (WRCOG, 2016, pp. 44, 55)

WRCOG is responsible for establishing and updating Transportation Uniform Mitigation Fee (TUMF) rates. The County may grant to developers a credit against the specific components of fees for the dedication of land or the construction of facilities identified in the list of improvements funded by each of these fee programs. Fees are based upon projected land uses and a related transportation needs to address growth based upon a 2016 Nexus study update. Payment of TUMF fees, as well as exemptions, credits, reimbursements, and local administration is deferred to local government agencies. WRCOG serves this function for the City of Lake Elsinore. (Urban Crossroads, 2018c, p. 24)

Table 1-4 of the Project's TIA (*Technical Appendix L*), *Summary of Improvements by Analysis Scenario*, provides a summary of improvements that are programmed to be funded by TUMF within the Project's study area.

### *E. City of Lake Elsinore Traffic Infrastructure Fee (TIF) Program*

The City of Lake Elsinore has created its own local Traffic Infrastructure Fee (TIF) program to impose and collect fees from new residential, commercial, and industrial development for the purpose of funding roadways and intersections necessary to accommodate City growth as identified in the City's General Plan Circulation Element. The City of Lake Elsinore's TIF program includes facilities that are not part of, or which may exceed improvements identified and covered by the TUMF program. As a result, the pairing of the regional and local fee programs provides a more comprehensive funding and implementation plan to ensure an adequate and interconnected transportation system. Under the City of Lake Elsinore's TIF program, the City of Lake Elsinore may grant to developers a credit against specific components of fees when those developers construct certain facilities and landscaped medians identified in the list of improvements funded by the TIF program. (Urban Crossroads, 2018c, p. 28)

The timing to use the TIF fees is established through periodic capital improvement programs which are overseen by the City of Lake Elsinore's Public Works Department. Periodic traffic counts, review of traffic accidents, and a review of traffic trends throughout the City of Lake Elsinore are also periodically performed by City of Lake Elsinore staff and consultants. The City of Lake Elsinore uses this data to determine the timing of implementing the improvements listed in its facilities list. (Urban Crossroads, 2018c, p. 28)

As shown in Table 1-4 of the Project's TIA (*Technical Appendix L*), a few of the facilities forecasted to be impacted by the Project are planned for improvements through the City of Lake Elsinore's TIF Program. The Project would be subject to the City of Lake Elsinore's TIF fee program, and would pay the requisite City of Lake Elsinore TIF fees at the rates then in effect pursuant to the City of Lake Elsinore's ordinance. The TIF network improvement needs were last updated in 2002 with an expected completion date by 2025. Improvements are identified in the Nexus Study by location rather than with specific geometrics. Table E of that study identifies TIF improvement locations and eligible program costs but does not provide discrete improvements. As a result, Table 1-4 of the TIA identifies TIF intersections with an expectation that City of Lake Elsinore, as program administrator, can distinguish if the program fees are sufficient to cover the fair-share impacts for proportionality. (Urban Crossroads, 2018c, p. 28)

## 4.16.5 Basis for Determining Significance

The proposed Project would result in a significant impact to transportation and traffic if the Project or any Project-related component would:

a. *Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, and pedestrian facilities;*

b. *Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways;*

c. *Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment); or*

d. *Result in inadequate emergency access.*

The above listed thresholds are derived directly from Section XVII of Appendix G to the CEQA Guidelines and address typical adverse effects to transportation and traffic (OPR, 2018).

## 4.16.6 DETERMINING SIGNIFICANCE OF IMPACTS

### *A. Minimum Level of Service (LOS)*

The definition of an intersection deficiency has been obtained from each of the applicable surrounding jurisdictions and are described below. (Urban Crossroads, 2018c, p. 43)

#### *1. City of Lake Elsinore*

The City, pursuant to its 2011 General Plan, requires that peak hour intersection operations be at LOS D or better to be considered acceptable. Therefore, City intersections operating at LOS E or F would be considered deficient. (Urban Crossroads, 2018c, p. 43)

#### *2. County of Riverside*

Riverside County General Plan Policy C 2.1 states that the County will maintain the following County-wide target LOS: (Urban Crossroads, 2018c, p. 44)

> *The following minimum target levels of service have been designated for the review of development proposals in the unincorporated areas of Riverside County with respect to transportation impacts on roadways designated in the Riverside County Circulation Plan which are currently County maintained, or are intended to be accepted into the County maintained roadway system:*
>
> - *LOS C shall apply to all development proposals in any area of the Riverside County not located within the boundaries of an Area Plan, as well as those areas located within the following Area Plans: REMAP, Eastern Coachella Valley, Desert Center, Palo Verde Valley, and those non-Community Development areas of the Elsinore, Lake Mathews/Woodcrest, Mead Valley and Temescal Canyon Area Plans.*
>
> - *LOS D shall apply to all development proposals located within any of the following Area Plans: Eastvale, Jurupa, Highgrove, Reche Canyon/Badlands, Lakeview/Nuevo, Sun City/Menifee Valley, Harvest Valley/Winchester, Southwest Area, The Pass, San Jacinto Valley, Western Coachella Valley and those Community Development Areas of the Elsinore, Lake Mathews/Woodcrest, Mead Valley and Temescal Canyon Area Plans.*
>
> - *LOS E may be allowed by the Board of Supervisors within designated areas where transit-oriented development and walkable communities are proposed. Notwithstanding the forgoing minimum LOS targets, the Board of Supervisors may, on occasion by virtue of their discretionary powers, approve a project that fails to meet these LOS targets in order to balance congestion management considerations in relation to benefits, environmental impacts and costs, provided an Environmental Impact Report, or equivalent, has been completed to fully evaluate the impacts of*

*such approval. Any such approval must incorporate all feasible mitigation measures, make specific findings to support the decision, and adopt a statement of overriding considerations.*

### 3. Caltrans

Caltrans endeavors to maintain a target LOS at the transition between LOS C and LOS D on SHS facilities, however, Caltrans acknowledges that this may not always be feasible and recommends that the lead agency consult with Caltrans to determine the appropriate target LOS. If an existing State highway facility is operating at less than this target LOS, the existing LOS should be maintained. In general, the region-wide goal for an acceptable LOS on all freeways, roadway segments, and intersections is LOS D. Consistent with the City of Lake Elsinore LOS threshold of LOS D and in excess of the Riverside County Congestion Management Program (CMP) stated LOS threshold of LOS E, LOS D will be used as the target LOS for freeway ramps, freeway segments, and freeway merge/diverge ramp junctions. (Urban Crossroads, 2018c, p. 44)

## B. Deficiency Criteria

Provided below is a summary of the methodology used in this analysis related to identifying circulation system deficiencies (Urban Crossroads, 2018c, p. 44).

### 1. Intersections

The following types of traffic deficiencies are considered to be significant under the California Environmental Quality Act (CEQA): (Urban Crossroads, 2018c, p. 45)

- When existing traffic conditions exceed the General Plan target LOS (e.g., LOS D or better). In such a case, the addition of Project traffic would be considered a cumulatively-considerable impact.
- When Project traffic, when added to existing and ambient traffic, will deteriorate the LOS to below the target LOS. In such cases, the Project impacts would be considered direct impacts.
- When ambient and/or cumulative traffic exceeds the target LOS with or without Project traffic. In such a case, the Project's impacts would be cumulatively-considerable.

### 2. Caltrans Facilities

To determine whether the addition of project traffic to the SHS freeway segments would result in a deficiency, the following will be utilized (Urban Crossroads, 2018c, p. 45):

- The analysis finds that the LOS of a segment will degrade from D or better to E or F.
- The analysis finds that the project will exacerbate an already deficient condition by contributing 50 or more peak hour trips. A segment that is operating at or near capacity is deemed to be deficient.

## C. Project Fair Share Calculation Methodology

In cases where the analysis identifies that the proposed Project would have a significant cumulative impact to a roadway facility, and the recommended mitigation measure is a fair-share monetary contribution, the following methodology was applied to determine the fair share contribution. A project's fair share contribution at an off-site study area intersection is determined based on the following equation, which is the ratio of project

traffic to new traffic, and new traffic is total future traffic subtracts existing baseline traffic: (Urban Crossroads, 2018c, p. 45)

Project Fair Share % = Project Traffic / (EAPC 2024 Total Traffic – Existing Baseline Traffic)

The Project fair share contribution calculations are presented in Section 1.5, *Local and Regional Funding Mechanisms*, of the Project's TIA (*Technical Appendix L*). (Urban Crossroads, 2018c, p. 45)

## 4.16.7 IMPACT ANALYSIS

***Threshold a. Would the Project conflict with an applicable program, plan, ordinance or policy addressing the circulation system, including transit, roadway, and pedestrian facilities?***

The analysis of Threshold a. focuses on potential impacts to local roadway intersections and roadway segments, based on acceptable LOS standards established by the City of Lake Elsinore and the County of Riverside as discussed in subsection 4.16.6. The analysis in this section also includes an evaluation of potential impacts to facilities under the jurisdiction of Caltrans, which include potential impacts to ramp junctions with the I-15. Traffic during the Project's construction phase is not analyzed herein because based on the construction characteristics identified in EIR Subsection 3.0, *Project Description*, the volume of construction-related traffic would result in fewer peak hour and daily trips than would result from any phase of the Project; thus, the analyses of the Project's operational traffic covers any impacts that could occur from construction-related traffic.

### *A. Analysis Scenarios*

For the purposes of analysis, potential impacts to traffic and circulation have been assessed for each of the following conditions: (Urban Crossroads, 2018c, p. 3)

- Existing (2018) Conditions (Baseline)
- Existing plus Phase 1 Project (E+P) Conditions
- Existing plus Phase 2 Project (E+P) Conditions
- Existing plus Project Buildout (E+P) Conditions
- Existing plus Ambient Growth (EA) (2020) Conditions
- Existing plus Ambient Growth plus Project (EAP) (2020) Conditions
- Existing plus Ambient Growth (EA) (2021) Conditions
- Existing plus Ambient Growth plus Project (EAP) (2021) Conditions
- Existing plus Ambient Growth (EA) (2024) Conditions
- Existing plus Ambient Growth plus Project (EAP) (2024) Conditions
- Existing plus Ambient Growth plus Project plus Cumulative (EAPC) (2020) Conditions
- Existing plus Ambient Growth plus Project plus Cumulative (EAPC) (2021) Conditions
- Existing plus Ambient Growth plus Project plus Cumulative (EAPC) (2024) Conditions

The Existing plus Project (E+P) analysis determines circulation system deficiencies that would occur on the existing roadway system in the scenario of the Project being placed upon Existing conditions. This analysis

scenario has also been provided for informational purposes only as Project impacts have been discerned from a comparison of Existing (2018) to EAP (2020), EAP (2021), and EAP (2024) traffic conditions (per the County's traffic study guidelines). This is because it is not realistic to assume that the Project would contribute traffic to study area facilities under existing (2018) conditions as the Project would not be operational until 2020 (Phase 1), 2021 (Phase 2), and 2024 (Phase 3). (Urban Crossroads, 2018c, p. 3)

The Existing plus Ambient Growth (EA) conditions includes 4.04% (for 2020 conditions), 6.12% (for 2021 conditions), and 12.62% (for 2024 conditions) of ambient growth traffic. Cumulative development projects are not included as part of the EA analysis. (Urban Crossroads, 2018c, p. 3)

The Existing plus Ambient Growth plus Project (EAP) conditions analysis determines the cumulative traffic impacts based on a comparison of the EAP traffic conditions to EA conditions (i.e., baseline conditions). To account for background traffic growth, ambient growth from Existing conditions of 4.04% (for 2020 conditions), 6.12% (for 2021 conditions), and 12.62% (for 2024 conditions) are included for EAP traffic conditions. Cumulative development projects are not included as part of the EAP analysis. (Urban Crossroads, 2018c, p. 4)

The Existing plus Ambient Growth plus Project plus Cumulative (EAPC) conditions analysis will be utilized to determine if improvements funded through regional transportation mitigation fee programs, such as TUMF and the City's TIF, or other approved funding mechanism can accommodate the near-term cumulative traffic at the target level of service (LOS) identified in the City of Lake Elsinore General Plan. If the "funded" improvements can provide the target LOS, then the Project's payment into TUMF and/or TIF will be considered as near-term cumulative mitigation through the conditions of approval. Other improvements needed beyond the "funded" improvements (such as localized improvements to non-TUMF facilities) are identified as such. To account for background traffic, other known cumulative development projects in the study area were included in addition to 4.04% (for 2020 conditions), 6.12% (for 2021 conditions), and 12.62% (for 2024 conditions) of ambient growth for EAPC traffic conditions in conjunction with traffic associated with the proposed Project. (Urban Crossroads, 2018c, p. 4)

As discussed in subsection 4.1.3 and Table 4-4 of the Project's TIA (*Technical Appendix L*), the proposed Project is anticipated to generate fewer trips than the currently approved land use (commercial retail) or less than 50 peak hour trips over the trip generation for the currently approved land use. As such, Horizon Year traffic conditions were not required to be evaluated and were not evaluated in the Project's TIA. (Urban Crossroads, 2018c, p. 3)

## *B. Traffic Modeling Inputs*

### *1. Project Trip Generation*

Trip generation represents the amount of traffic which is both attracted to and produced by a development. Determining traffic generation for a specific project is therefore based upon forecasting the amount of traffic that is expected to be both attracted to and produced by the specific land uses being proposed for a given development. (Urban Crossroads, 2018c, p. 69)

For purposes of the traffic analysis the Project will be evaluated in 3 phases, with Phase 1 having a projected Opening Year of 2020, Phase 2 having a project Opening Year of 2021, and Project Buildout anticipated to occur in 2024. Land uses assumed for each phase are described below. (Urban Crossroads, 2018c, p. 69)

- Phase 1 (2020): 34 low-medium density residential dwelling units
- Phase 2 (2021): Phase 1 (2020) development plus 134 additional low-medium density residential dwelling units (buildout of residential) and an 8.3-acre park
- Phase 3 (2024): Phase 1 (2020) and Phase 2 (2021) development plus 6,000 square feet (sf) of fast-food restaurant with drive-through window use, 9,400 sf of high turnover (sit-down) restaurant use, 8,000 sf of health and fitness club use, 43,000 sf of office use, 5,500 sf of fast food without drive-through, a 16-vehicle fueling position gas station with convenience store and car wash, and 130-room hotel

Trips generated by the Project's proposed land uses have been estimated based on trip generation rates collected by the Institute of Transportation Engineers (ITE) Trip Generation Manual, 10th Edition, 2017 for the following ITE land use codes (Urban Crossroads, 2018c, p. 69):

- Single Family Detached Residential (ITE Code 210)
- Hotel (ITE Code 310)
- Park (ITE Code 411)
- Health & Fitness Club (ITE Code 492)
- General Office (ITE Code 710)
- Shopping Center (ITE Code 820)
- High Turnover (Sit-Down) Restaurant (ITE Code 932)
- Fast Food without Drive-Through (ITE Code 933)
- Fast Food with Drive-Through (ITE Code 934)
- Gasoline/Service Station with Convenience Market (ITE Code 945)

Table 4-1 of the Project's TIA (*Technical Appendix L*) presents the trip generation rates for these land uses. Table 4.16-13, *Project Trip Generation Summary*, summarizes the trip generation based on the mix of land uses proposed for the Project. As the Project is proposed to include shopping center and gas station uses, pass-by percentages have been obtained from Tables F.9, F.37, and F.38 of the ITE Trip Generation Handbook (3rd Edition, 2014). Patrons of the hotel and future residents may also visit other uses on-site, including the gas station and retail uses, without leaving the site. The ITE Trip Generation Handbook has been utilized to determine the internal capture for the proposed mix of uses, for each phase of development. (Urban Crossroads, 2018c, p. 70)

Internal capture is a percentage reduction that can be applied to the trip generation estimates for individual land uses to account for trips internal to the site. In other words, trips may be made between individual retail uses on-site and can be made either by walking or using internal roadways without using external streets. As the trip generation for the site was conservatively estimated based on individual land uses as opposed to the overall ITE Shopping Center rate, an internal capture reduction of 10% was applied to recognize the interactions that would occur between the various complimentary land uses. As shown on Table 7.1 of the

ITE Trip Generation Handbook, the internal capture percentage between retail-to-retail land uses is approximately 29% during the weekday mid-day peak hour and approximately 20% during the weekday PM peak hour. The internal capture reduction percentage applied has been reviewed and approved by City staff. (Urban Crossroads, 2018c, p. 70)

**Table 4.16-13 Project Trip Generation Summary**

| Land Use | Quantity | Units[1] | AM Peak Hour | | | PM Peak Hour | | | Daily |
|---|---|---|---|---|---|---|---|---|---|
| | | | In | Out | Total | In | Out | Total | |
| Phase 1 (2020) | | | | | | | | | |
| Single Family Detached Residential | 34 | DU | 7 | 19 | 26 | 22 | 13 | 35 | 321 |
| ***Phase 1 Total:*** | | | **7** | **19** | **26** | **22** | **13** | **35** | **321** |
| Phase 2 (2021) | | | | | | | | | |
| Single Family Detached Residential | 168 | DU | 32 | 94 | 126 | 105 | 62 | 167 | 1,586 |
| Park | 8.3 | AC | 1 | 1 | 2 | 1 | 1 | 2 | 7 |
| ***Phase 2 Total:*** | | | **33** | **95** | **128** | **106** | **63** | **169** | **1,593** |
| Project Buildout (2024) | | | | | | | | | |
| Single Family Detached Residential | 168 | DU | 32 | 94 | 126 | 105 | 62 | 167 | 1,586 |
| Park | 8.3 | AC | 1 | 1 | 2 | 1 | 1 | 2 | 7 |
| Internal Capture: | | | -3 | -22 | -25 | -25 | -20 | -45 | 0 |
| *Residential Subtotal:* | | | *30* | *73* | *103* | *81* | *43* | *124* | *1,593* |
| Hotel | 130 | Rooms | 37 | 26 | 63 | 40 | 39 | 79 | 1,087 |
| Internal Capture: | | | -1 | -8 | -9 | -17 | -13 | -30 | -413 |
| *Hotel Subtotal:* | | | *36* | *18* | *54* | *23* | *26* | *49* | *674* |
| Fast Food With Drive-Through | 6.000 | TSF | 123 | 118 | 241 | 102 | 94 | 196 | 2,826 |
| Internal Capture: | | | -14 | -6 | -21 | -17 | -22 | -39 | -564 |
| Pass-By (49% AM, 50% PM/Daily): | | | -55 | -55 | -110 | -36 | -36 | -72 | -1,131 |
| Fast Food Without Drive-Through | 5.500 | TSF | 83 | 55 | 138 | 78 | 78 | 156 | 1,904 |
| Internal Capture: | | | -10 | -4 | -14 | -11 | -15 | -26 | -321 |
| Pass-By (49% AM, 50% PM/Daily): | | | -25 | -25 | -50 | -31 | -31 | -62 | -791 |
| High Turnover (Sit-Down) Restaurant | 9.400 | TSF | 51 | 42 | 93 | 57 | 35 | 92 | 1,054 |
| Internal Capture: | | | -5 | -2 | -8 | -6 | -8 | -15 | -167 |
| Pass-By (43% PM/Daily): | | | 0 | 0 | 0 | -11 | -11 | -22 | -381 |
| *Restaurant Subtotal:* | | | *148* | *122* | *270* | *125* | *83* | *208* | *2,428* |
| Commercial Retail | 4.400 | TSF | 95 | 59 | 154 | 26 | 28 | 54 | 719 |
| Internal Capture: | | | -15 | -11 | -26 | -19 | -17 | -36 | -479 |
| Pass-By (34% PM/Daily): | | | 0 | 0 | 0 | -2 | -2 | -4 | -81 |
| Health & Fitness Club | 8.000 | TSF | 5 | 5 | 10 | 16 | 12 | 28 | 276 |
| Gas Station w/ Market & Carwash | 16 | VFP | 162 | 162 | 324 | 179 | 179 | 358 | 3,171 |
| Pass-By (62% am, 56% PM/Daily): | | | -100 | -100 | -200 | -100 | -100 | -200 | -1,776 |
| *Retail Subtotal:* | | | *147* | *115* | *262* | *100* | *100* | *200* | *1,829* |
| General Office | 43.000 | TSF | 58 | 9 | 67 | 8 | 43 | 51 | 468 |
| Internal Capture: | | | -14 | -8 | -22 | -5 | -5 | -10 | -92 |
| *Office Subtotal:* | | | *44* | *1* | *45* | *3* | *38* | *41* | *376* |
| ***Project Buildout Total:*** | | | **405** | **329** | **734** | **332** | **290** | **622** | **6,901** |

[1] DU = Dwelling Units; TSF = thousand square feet; VFP = Vehicle Fueling Position; AC = Acres

(Urban Crossroads, 2018c, Table 4-2)

As shown in Table 4.16-13, the Project is estimated to generate a net total of 6,900 trip-ends per day on a typical weekday with approximately 734 AM peak hour trips and 622 PM peak hour trips. (Urban Crossroads, 2018c, p. 70)

### 2. Project Trip Distribution

The Project trip distribution patterns were developed based on an understanding of existing travel patterns in the area, the geographical location of the site, and the site's proximity to the regional arterial and state highway system. Project travel patterns were derived for each of the proposed land uses. Figure 4.16-4, *Residential Project Buildout Trip Distribution*, shows the residential trip distribution patterns for the Project for Phase 1, Phase 2, and Project Buildout. B Street would be fully constructed by the Project in Phase 1. Therefore, it is unlikely that existing through traffic would continue to utilize El Toro Road to access Nichols Road once B Street provides direct access to Nichols Road. As such, for the purposes of this analysis, 50 percent of the through traffic on El Toro Road would divert and use B Street to access Nichols Road, once available. The trip distribution for Phase 2 includes the buildout of A Street to Nichols Road. (Urban Crossroads, 2018c, p. 74)

Figure 4.16-5, *Commercial Buildout Trip Distribution*, shows the retail trip distribution patterns for the Project which will be utilized for the shopping center, office, and gas station uses. Figure 4.16-6, *Hotel Buildout Trip Distribution*, shows the hotel trip distribution patterns for the Project. Figure 4.16-5 and Figure 4.16-6 will be utilized for Project buildout conditions only, as both the commercial and hotel uses would be developed as part of the third phase of the proposed Project. (Urban Crossroads, 2018c, p. 74)

### 3. Modal Split

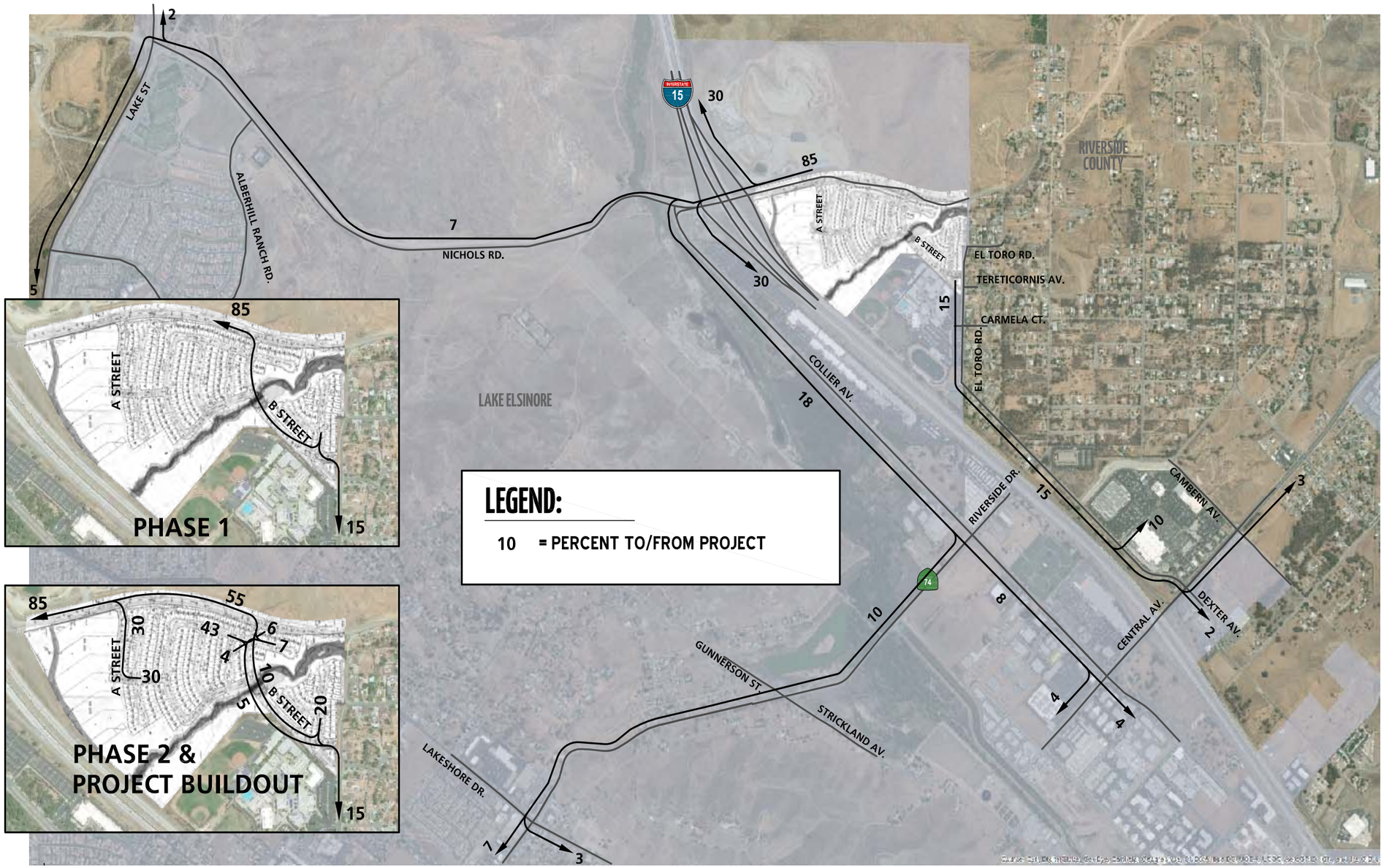
The traffic reducing potential of public transit, walking, or bicycling have not been considered in the Project's TIA. Essentially, the traffic projections are "conservative" in that these alternative travel modes might be able to reduce the forecasted traffic volumes. (Urban Crossroads, 2018c, p. 74)

### 4. Project Trip Assignment

The assignment of traffic from the Project area to the adjoining roadway system is based upon the Project trip generation, trip distribution, and the arterial highway and local street system improvements that would be in place by the time of initial occupancy of the Project. Based on the identified Project traffic generation and trip distribution patterns, Project (Phase 1) ADT and peak hour intersection turning movement volumes are shown on Figure 4.16-7, *Project Only (Phase 1) Traffic Volumes*. Project (Phase 2) ADT and peak hour intersection turning movement volumes are shown on Figure 4.16-8, *Project Only (Phase 2) Traffic Volumes*. Project (Buildout) ADT and peak hour intersection turning movement volumes are shown on Figure 4.16-9, *Project Only (Buildout) Traffic Volumes*. (Urban Crossroads, 2018c, p. 74)

### 5. Cumulative Development Traffic

The CEQA Guidelines require that other reasonably foreseeable development projects which are either approved or being processed concurrently in the study area also be included as part of a cumulative analysis scenario. A cumulative project list was developed for the purposes of this analysis through consultation with planning and engineering staff from the City of Lake Elsinore. The cumulative project list includes known and foreseeable projects that are anticipated to contribute traffic to the study area intersections. The cumulative projects provided by the City of Lake Elsinore are provided in Appendix 4.1 of the Project's TIA (*Technical*

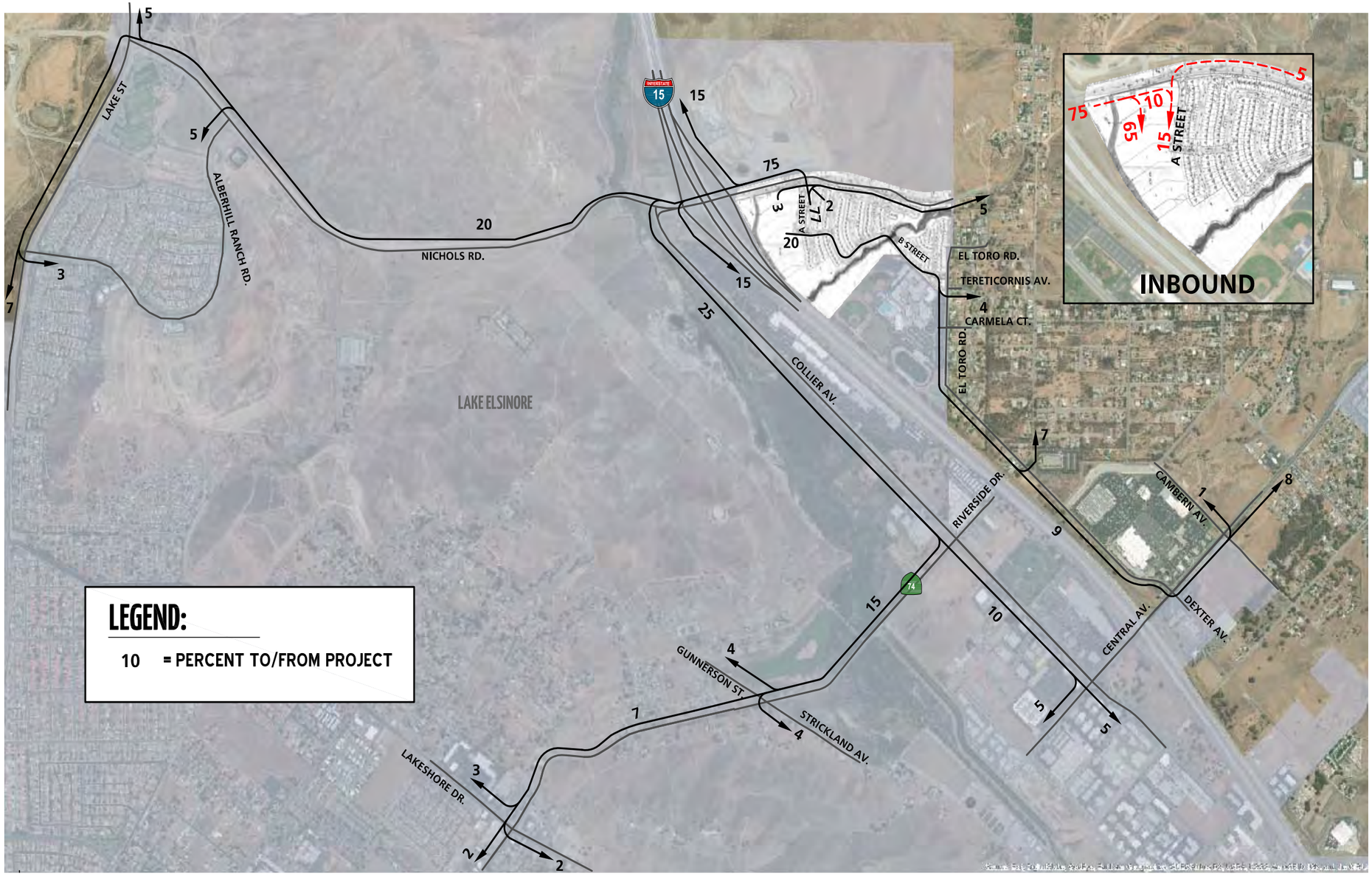



*Source(s): Urban Crossroads (08-14-2018)*

Figure 4.16-4

NOT TO SCALE

**RESIDENTIAL PROJECT BUILDOUT TRIP DISTRIBUTION**

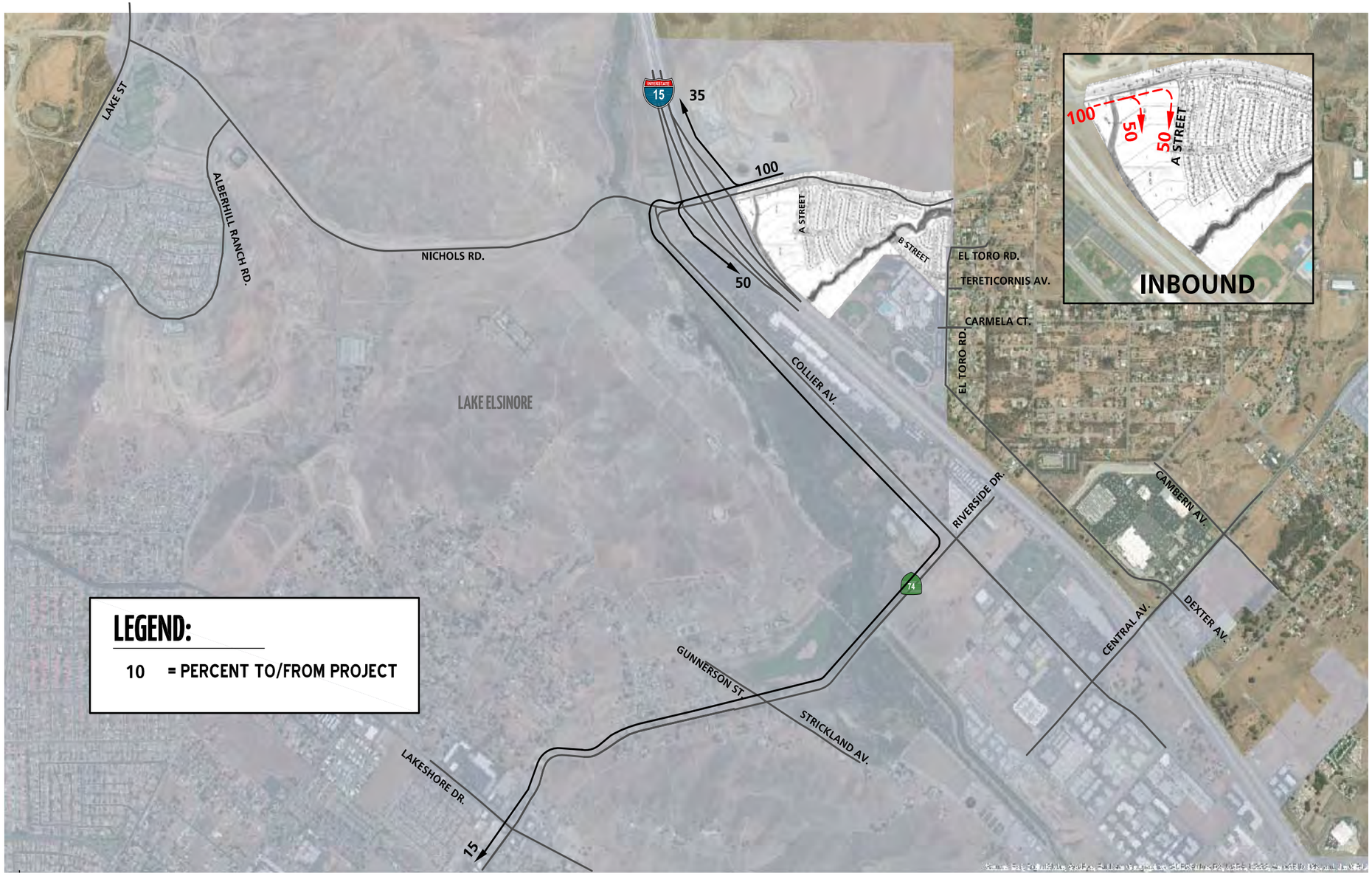



Source(s): Urban Crossroads (08-14-2018)

Figure 4.16-5

NOT TO SCALE

**COMMERCIAL BUILDOUT TRIP DISTRIBUTION**

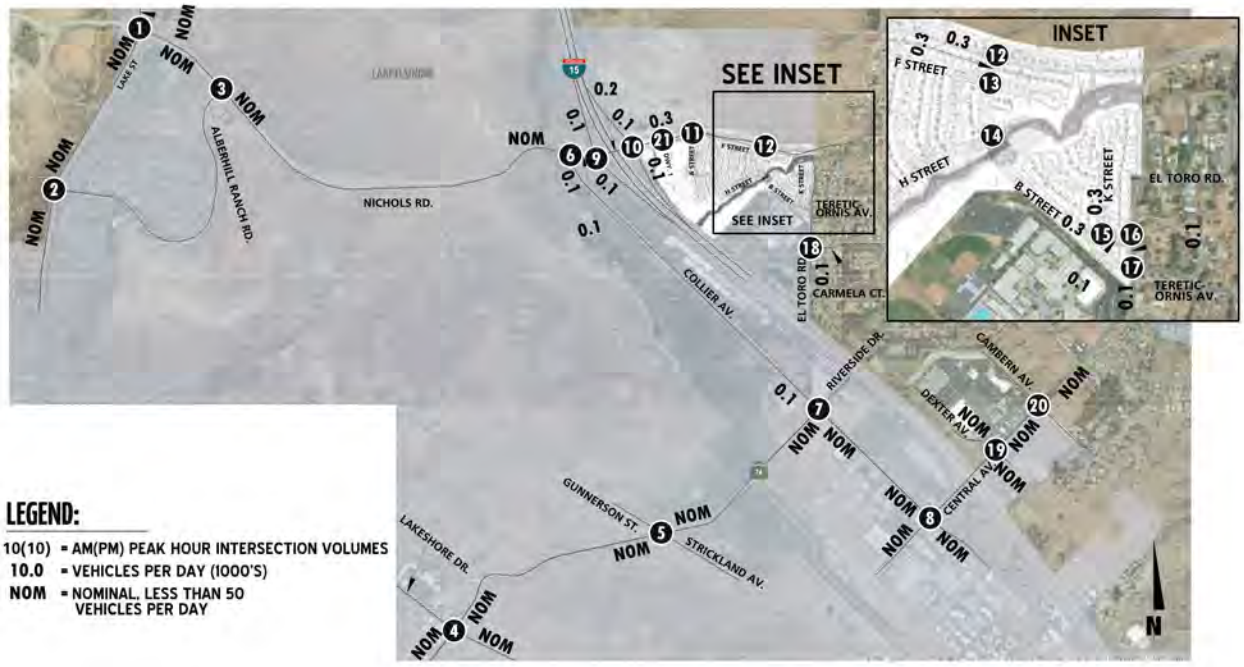



Source(s): Urban Crossroads (08-14-2018)

Figure 4.16-6

NOT TO SCALE

**HOTEL BUILDOUT TRIP DISTRIBUTION**



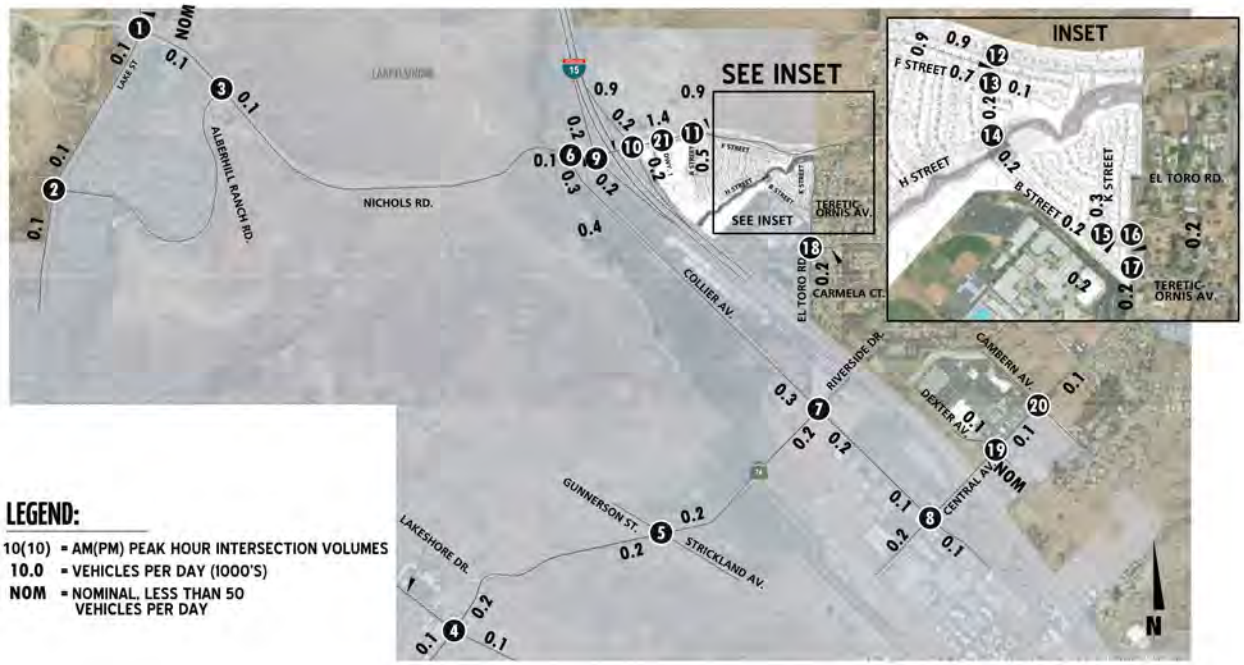

| | | | | | | |
|---|---|---|---|---|---|---|
| 1 Lake St. & Nichols Rd. | 2 Lake St. & Alberhill Ranch Rd. | 3 Alberhill Ranch Rd. & Nichols Rd. | 4 Lakeshore Dr. & Riverside Dr. (SR-74) | 5 Gunnerson St./ Strickland Av. & Riverside Dr. (SR-74) | 6 Collier Av. & Nichols Rd. | 7 Collier Av. & Riverside Dr. (SR-74) |
| 8 Collier Av. & Central Av. (SR-74) | 9 I-15 SB Ramps & Nichols Rd. | 10 I-15 NB Ramps & Nichols Rd. | 11 A Street & Nichols Rd. | 12 B Street & Nichols Rd. | 13 B Street & F Street | 14 B Street & H Street |
| | | | Future Intersection | | Future Intersection | Future Intersection |
| 15 K Street & B Street | 16 El Toro Rd. & B Street | 17 El Toro Rd. & Tereticornis Av. | 18 El Toro Rd. & Carmela Ct. | 19 Dexter Av. & Central Av. (SR-74) | 20 Cambern Av. & Central Av. (SR-74) | 21 Driveway 1 & Nichols Rd. |
| | | | | | | Future Intersection |

*Source(s): Urban Crossroads (08-14-2018)*

Figure 4.16-7

NOT TO SCALE

**PROJECT ONLY (PHASE 1) TRAFFIC VOLUMES**




**LEGEND:**

10(10) = AM(PM) PEAK HOUR INTERSECTION VOLUMES
10.0 = VEHICLES PER DAY (1000'S)
NOM = NOMINAL, LESS THAN 50 VEHICLES PER DAY

| | | | | | | |
|---|---|---|---|---|---|---|
| 1 Lake St. & Nichols Rd. | 2 Lake St. & Alberhill Ranch Rd. | 3 Alberhill Ranch Rd. & Nichols Rd. | 4 Lakeshore Dr. & Riverside Dr. (SR-74) | 5 Gunnerson St./ Strickland Av. & Riverside Dr. (SR-74) | 6 Collier Av. & Nichols Rd. | 7 Collier Av. & Riverside Dr. (SR-74) |
| 8 Collier Av. & Central Av. (SR-74) | 9 I-15 SB Ramps & Nichols Rd. | 10 I-15 NB Ramps & Nichols Rd. | 11 A Street & Nichols Rd. | 12 B Street & Nichols Rd. | 13 B Street & F Street | 14 B Street & H Street |
| 15 K Street & B Street | 16 El Toro Rd. & B Street | 17 El Toro Rd. & Tereticornis Av. | 18 El Toro Rd. & Carmela Ct. | 19 Dexter Av. & Central Av. (SR-74) | 20 Cambern Av. & Central Av. (SR-74) | 21 Driveway 1 & Nichols Rd. |

Future Intersection

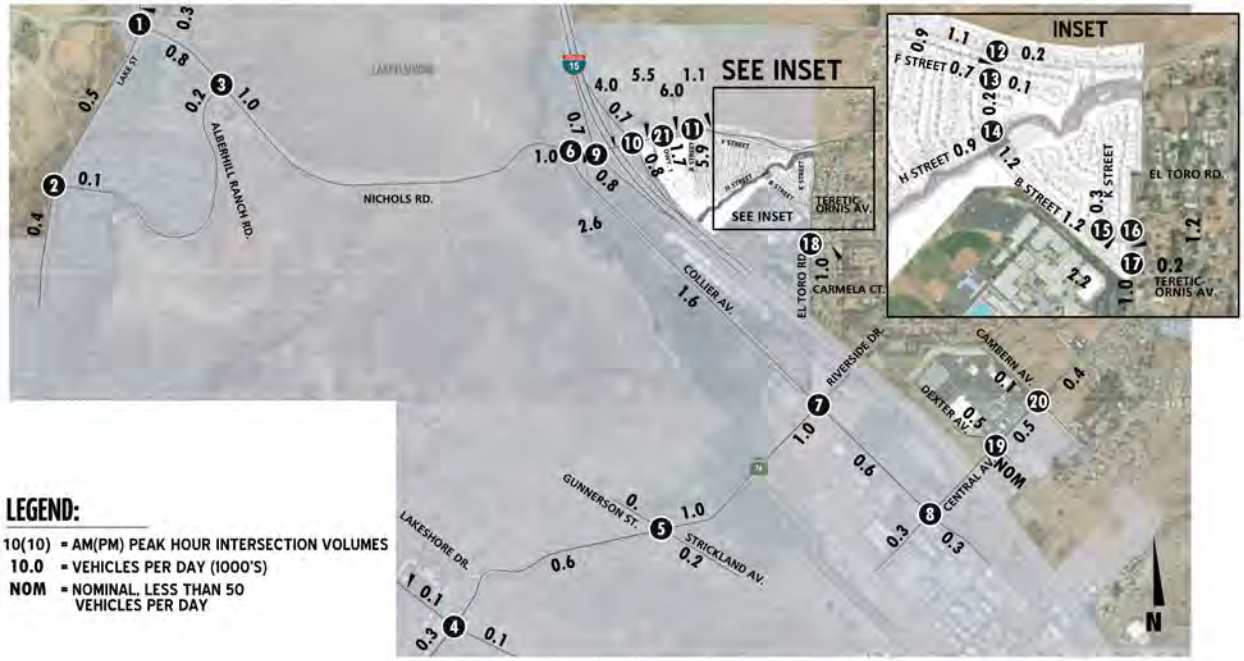
Future Intersection

*Source(s): Urban Crossroads (08-14-2018)*

Figure 4.16-8

NOT TO SCALE

**PROJECT ONLY (PHASE 2) TRAFFIC VOLUMES**




**LEGEND:**

10(10) = AM(PM) PEAK HOUR INTERSECTION VOLUMES
10.0 = VEHICLES PER DAY (1000'S)
NOM = NOMINAL, LESS THAN 50 VEHICLES PER DAY

| | | | | | | |
|---|---|---|---|---|---|---|
| 1 Lake St. & Nichols Rd. | 2 Lake St. & Alberhill Ranch Rd. | 3 Alberhill Ranch Rd. & Nichols Rd. | 4 Lakeshore Dr. & Riverside Dr. (SR-74) | 5 Gunnerson St./ Strickland Av. & Riverside Dr. (SR-74) | 6 Collier Av. & Nichols Rd. | 7 Collier Av. & Riverside Dr. (SR-74) |
| 8 Collier Av. & Central Av. (SR-74) | 9 I-15 SB Ramps & Nichols Rd. | 10 I-15 NB Ramps & Nichols Rd. | 11 A Street & Nichols Rd. | 12 B Street & Nichols Rd. | 13 B Street & F Street | 14 B Street & H Street |
| 15 K Street & B Street | 16 El Toro Rd. & B Street | 17 El Toro Rd. & Tereticornis Av. | 18 El Toro Rd. & Carmela Ct. | 19 Dexter Av. & Central Av. (SR-74) | 20 Cambern Av. & Central Av. (SR-74) | 21 Driveway 1 & Nichols Rd. |

*Source(s): Urban Crossroads (08-14-2018)*

Figure 4.16-9

NOT TO SCALE

**PROJECT ONLY (BUILDOUT) TRAFFIC VOLUMES**

*Appendix L*) and are presented in EIR Table 4.0-1. In addition, the County of Riverside was also contacted to obtain near-by cumulative projects that could potentially contribute traffic at the study area intersections. (Urban Crossroads, 2018c, p. 82)

Where applicable, cumulative projects anticipated to contribute measurable traffic (i.e. 50 or more peak hour trips) to study area intersections have been manually added to the study area network to generate EAPC forecasts. In other words, the list of cumulative development projects has been reviewed to determine which projects would likely contribute measurable traffic through the study area intersections (e.g., those cumulative projects in close proximity to the proposed Project). For the purposes of this analysis, the cumulative projects that were determined to affect one or more of the study area intersections were previously depicted in EIR Figure 4.0-1 and previously listed in EIR Table 4.0-1. (Urban Crossroads, 2018c, p. 82)

For the purposes of this analysis, absorption percentages have been applied to the cumulative development traffic. It is unlikely that each cumulative development project shown on EIR Figure 4.0-1 will be fully constructed and occupied by the years 2020, 2021, and 2024. As such, 10% of the cumulative development traffic is added on top of EAP (2020) traffic volumes, 15% of the cumulative development traffic is added on top of EAP (2021) traffic volumes, and 30% of cumulative development traffic is added on top of EAP (2024) traffic volumes. (Urban Crossroads, 2018c, p. 82)

### *6. Background Traffic*

Future year traffic forecasts have been based upon background (ambient) growth at 4.04% for 2020, 6.12% for 2021, and 12.62% for 2024 conditions traffic conditions. The ambient growth factor is intended to approximate regional traffic growth. This ambient growth rate is added to existing traffic volumes to account for area-wide growth not reflected by cumulative development projects. Ambient growth has been added to daily and peak hour traffic volumes on surrounding roadways, in addition to traffic generated by the development of future projects that have been approved but not yet built and/or for which development applications have been filed and are under consideration by governing agencies. (Urban Crossroads, 2018c, p. 82)

The currently adopted SCAG 2012 RTP/SCS (April 2016) growth forecasts for the City of Lake Elsinore identifies projected growth in population of 54,100 in 2012 to 111,400 in 2040, or a 105.91 percent increase over the 28-year period. The change in population equates to roughly a 2.61 percent growth rate compounded annually. Similarly, growth over the same 28-year period in households is projected to increase by 130.26 percent, or 3.02 percent annual growth rate. Finally, growth in employment over the same 23-year period is projected to increase by 168.64 percent, or a 3.59 percent annual growth rate. (Urban Crossroads, 2018c, p. 86)

Based on a comparison of Existing traffic volumes to the EAPC forecasts, the average growth rate is estimated at approximately 7.78 percent compounded annually between Existing and EAPC traffic conditions. The annual growth rate at each individual intersection is not lower than 3.30 percent compounded annually to as high as 16.8 percent compounded annually over the same time period. Therefore, the annual growth rate utilized for the purposes of this analysis would appear to conservatively approximate the anticipated regional growth in traffic volumes in the City of Lake Elsinore for EAPC traffic conditions, especially when considered along with the addition of Project-related traffic. As such, the growth in traffic volumes assumed in the

Project's TIA would tend to overstate as opposed to understate the potential LOS deficiencies to traffic and circulation. (Urban Crossroads, 2018c, p. 86)

Any other cumulative projects that are not expected to contribute measurable traffic to study area intersections have not been included since the traffic would dissipate due to the distance from the Project site and study area intersections. Any additional traffic generated by other projects not on the cumulative projects list is accounted for through background ambient growth factors that have been applied to the peak hour volumes at study area intersections. (Urban Crossroads, 2018c, p. 86)

### *7. Near-Term Traffic Forecasts*

To provide a comprehensive assessment of potential transportation network deficiencies, a type of analysis, "buildup", was performed in support of this work effort. The "buildup" method was used to approximate the EAP traffic forecasts including background traffic, and is intended to identify the peak hour LOS deficiencies on both the existing and planned near-term circulation system. The "buildup" method was also utilized to approximate the EAPC traffic forecasts, and is intended to identify the LOS deficiencies on both the existing and planned near-term circulation system. The EAPC traffic forecasts include background traffic, traffic generated by other cumulative development projects within the study area, and the traffic generated by the proposed Project. (Urban Crossroads, 2018c, p. 86)

As noted previously, an analysis of the proposed Project at various development tiers has been assessed for the purposes of the Project's TIA. The near-term traffic analysis includes the following traffic conditions, with the various traffic components: (Urban Crossroads, 2018c, pp. 86-87)

- EAP (2020)
  - Existing 2018 counts
  - Ambient growth traffic (4.04%)
  - Project (Phase 1) traffic
- EAP (2021)
  - Existing 2018 counts
  - Ambient growth traffic (6.12%)
  - Project (Phase 2) traffic
- EAP (2024)
  - Existing 2018 counts
  - Ambient growth traffic (12.62%)
  - Project Buildout traffic
- EAPC (2020)
  - Existing 2018 counts
  - Ambient growth traffic (4.04%)
  - Cumulative Development Project traffic (10% absorption)
  - Project (Phase 1) traffic
- EAPC (2021)
  - Existing 2018 counts
  - Ambient growth traffic (6.12%)

  - Cumulative Development Project traffic (15% absorption)
  - Project (Phase 2) traffic
- EAPC (2024)
  - Existing 2018 counts
  - Ambient growth traffic (12.62%)
  - Cumulative Development Project traffic (30% absorption)
  - Project Buildout traffic

## C. *Existing Plus Project (E+P) Traffic Conditions*

In an effort to satisfy the CEQA Guideline § 15125(a), an analysis of existing traffic volumes plus traffic generated by the proposed Project (E+P) has been included herein. This analysis scenario has been provided for informational purposes only as Project impacts have been discerned from a comparison of Existing (2018) and EA conditions to EAP (2020), EAP (2021), and EAP (2024) (per the County's traffic study guidelines). This is because it is not reasonable to assume that Project traffic would impact study area facilities under 2018 conditions, as the Project is anticipated to be built-out and occupied in 2020 (Phase 1), 2021 (Phase 2), and 2024 (Phase 3/Project buildout). (Urban Crossroads, 2018c, p. 89)

### 1. *Roadway Improvements – E+P Conditions*

The lane configurations and traffic controls assumed to be in place for E+P conditions were previously shown on Figure 4.16-2, and consist of the following: (Urban Crossroads, 2018c, p. 89)

- Project driveways and those facilities assumed to be constructed by the Project to provide site access are also assumed to be in place for E+P conditions only (e.g., intersection and roadway improvements at the Project's frontage and driveways). This includes B Street between El Toro Road and Nichols Road as part of Phase 1.

### 2. *E+P Traffic Volume Forecasts*

This scenario includes Existing traffic volumes plus Project traffic. Exhibit 5-1 of the Project's TIA (*Technical Appendix L*) shows the ADT and peak hour intersection turning movement volumes that can be expected for E+P (Phase 1) traffic conditions. Exhibit 5-2 of the TIA shows the ADT and peak hour intersection turning movement volumes that can be expected for E+P (Phase 2) traffic conditions. TIA Exhibit 5-3 shows the ADT and peak hour intersection turning movement volumes that can be expected for E+P (Project Buildout) traffic conditions. (Urban Crossroads, 2018c, p. 89)

Starting with Phase 1 (2020), the Project would provide a connection between Nichols Road and El Toro Road via B Street. As such, it is unlikely that existing through traffic would continue to utilize the existing El Toro Road segments to access Nichols Road once B Street provides access to Nichols Road. As such, the existing volumes at El Toro Road at Nichols Road and El Toro Road/Wood Mesa Court at El Toro Road have been reallocated to reflect the use of B Street starting in Phase 1. It is anticipated that 50% of the existing traffic would be reallocated to utilize B Street. (Urban Crossroads, 2018c, p. 89)

### 3. *Intersection Operations Analysis – E+P Conditions*

E+P peak hour traffic operations have been evaluated for each phase of development for the study area intersections based on the analysis methodologies presented in subsection 4.16.2. The intersection analysis results are summarized in Table 4.16-14, *Intersection Analysis for E+P Conditions*, which indicates that no additional intersection deficiencies are anticipated with the addition of Project (Phase 1) traffic and Project (Phase 2) traffic, in addition to those previously identified under Existing traffic conditions. (Urban Crossroads, 2018c, p. 89)

**Table 4.16-14 Intersection Analysis for E+P Conditions**

| | | | Existing (2018) | | | | E+P (Phase 1) | | | | E+P (Phase 2) | | | | E+P (Buildout) | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Delay[1] (secs.) | | LOS[3] | | Delay[1] (secs.) | | LOS[3] | | Delay[1] (secs.) | | LOS[3] | | Delay[1] (secs.) | | LOS[3] | |
| # | Intersection | Traffic Control[2] | AM | PM | AM | PM | AM | PM | AM | PM | AM | PM | AM | PM | AM | PM | AM | PM |
| 1 | Lake St. & Nichols Rd. | TS | 16.3 | 25.4 | B | C | 16.4 | 25.6 | B | C | 16.7 | 25.9 | B | C | 19.4 | 29.4 | B | C |
| 2 | Lake St. & Alberhill Ranch Rd. | TS | 12.4 | 7.4 | B | A | 12.4 | 7.4 | B | A | 12.4 | 7.4 | B | A | 13.6 | 8.2 | B | A |
| 3 | Alberhill Ranch Rd. & Nichols Rd. | AWS | 11.4 | 9.7 | B | A | 11.4 | 9.7 | B | A | 11.4 | 9.8 | B | A | 13.3 | 10.5 | B | B |
| 4 | Lakeshore Dr. & Riverside Dr. (SR-74) | TS | 44.9 | 42.5 | D | D | 45.0 | 42.5 | D | D | 45.5 | 42.7 | D | D | 46.4 | 43.8 | D | D |
| 5 | Gunnerson St./Strickland Av. & Riverside Dr. (SR-74) | CSS | **81.0** | **>100.0** | **F** | **F** | **82.4** | **>100.0** | **F** | **F** | **84.0** | **>100.0** | **F** | **F** | **>100.0** | **>100.0** | **F** | **F** |
| 6 | Collier Av. & Nichols Rd. | CSS | 20.5 | 28.9 | C | D | 20.7 | 29.4 | C | D | 22.2 | 31.3 | C | D | **35.5** | **54.0** | **E** | **F** |
| 7 | Collier Av. & Riverside Dr. (SR-74) | TS | 14.9 | 24.7 | B | C | 15.0 | 24.8 | B | C | 15.4 | 25.5 | B | C | 18.2 | 29.5 | B | C |
| 8 | Collier Av. & Central Av. (SR-74) | TS | 34.2 | 33.0 | C | D | 34.2 | 33.0 | C | D | 34.1 | 33.1 | C | D | 34.1 | 33.1 | C | D |
| 9 | I-15 Southbound Ramps & Nichols Rd. | AWS | 15.4 | 13.4 | C | B | 15.6 | 13.7 | C | B | 16.9 | 14.9 | C | B | **48.5** | 25.0 | **E** | C |
| 10 | I-15 Northbound Ramps & Nichols Rd. | CSS | **>100.0** | 29.9 | **F** | D | **>100.0** | 32.3 | **F** | D | **>100.0** | **46.8** | **F** | **E** | **>100.0** | **>100.0** | **F** | **F** |
| 11 | A St. & Nichols Rd. | **CSS/TS** | Future Intersection | | | | Future Intersection | | | | 15.9 | 12.1 | C | B | 15.8 | 12.9 | B | B |
| 12 | B St. & Nichols Rd. | **CSS** | Future Intersection | | | | 13.7 | 10.8 | B | B | 14.7 | 11.2 | B | B | 14.9 | 11.2 | B | B |
| 13 | B St. & F St. | **CSS** | Future Intersection | | | | Future Intersection | | | | 11.5 | 10.2 | A | B | 11.3 | 10.0 | B | B |
| 14 | B St. & H St. | **CSS** | Future Intersection | | | | Future Intersection | | | | 0.0 | 0.0 | A | A | 9.8 | 9.0 | A | A |
| 15 | K St. & B St. | **CSS** | Future Intersection | | | | 9.2 | 8.9 | A | A | 9.9 | 9.3 | A | A | 10.5 | 9.7 | B | A |
| 16 | El Toro Rd. & B St. | **CSS** | Future Intersection | | | | 11.3 | 9.3 | B | A | 11.5 | 9.4 | B | A | 12.1 | 9.6 | B | A |
| 17 | El Toro Rd. & Tereticornis Av. | CSS | **>100.0** | 10.2 | **F** | B | **>100.0** | 10.2 | **F** | B | **>100.0** | 10.4 | **F** | B | **>100.0** | 10.7 | **F** | B |
| | *With Normalized PHF*[4,5] | CSS | 22.4 | -- | C | -- | 22.6 | -- | C | -- | 23.3 | -- | C | -- | **31.3** | -- | **D** | -- |
| 18 | El Toro Rd. & Carmela Ct. | CSS | **>100.0** | 11.5 | **F** | B | **>100.0** | 11.5 | **F** | B | **>100.0** | 11.8 | **F** | B | **>100.0** | 12.6 | **F** | B |
| | *With Normalized PHF*[4,5] | CSS | **>100.0** | -- | **F** | -- | **>100.0** | -- | **F** | -- | **>100.0** | -- | **F** | -- | **>100.0** | -- | **F** | -- |
| 19 | Dexter Av. & Central Av. (SR-74) | TS | 39.6 | 46.5 | D | D | 39.7 | 46.5 | D | D | 39.8 | 46.7 | D | D | 41.6 | 48.3 | D | D |
| 20 | Cambern Av. & Central Av. (SR-74) | TS | 26.3 | 27.2 | C | C | 26.3 | 27.2 | C | C | 26.3 | 27.2 | C | C | 27.1 | 27.5 | C | C |
| 21 | Driveway 1 & Nichols Rd. | **CSS** | Future Intersection | | | | Future Intersection | | | | Future Intersection | | | | 12.4 | 10.3 | B | B |

[4] **BOLD** = LOS does not meet the applicable jurisdictional requirements (i.e., unacceptable LOS).

[1] Per the Highway Capacity Manual (6th Edition), overall average intersection delay and level of service are shown for intersections with a traffic signal or all way stop control. For intersections with cross-street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown.

[2] CSS = Cross-street Stop; AWS = All-way Stop; TS = Traffic Signal; **CSS** = Improvement

[3] LOS = Level of Service

[4] The two intersections of Tereticornis Avenue and Carmela Court are in close proximity to the existing Temescal Canyon High School on El Toro Road and have been evaluated with the AM existing peak hour factor from the raw count worksheet and also with a normalized peak hour factor of 0.92. Lower peak hour factors during the AM peak hour (morning drop-off) occur near schools due to the peak 10-15 minute traffic flows during the AM peak hour, which are much higher in comparison to the other 15-minute periods within the hour.

[5] PHF = Peak Hour Factor

(Urban Crossroads, 2018c, Table 5-1)

As shown in Table 4.16-14, the following intersections are anticipated to operate at unacceptable LOS with the addition of Project (Project Buildout) traffic, in addition to those previously identified under Existing, E+P (Phase 1), and E+P (Phase 2) traffic conditions (Urban Crossroads, 2018c, p. 94):

- Collier Avenue & Nichols Road (#6) – LOS E AM peak hour; LOS F PM peak hour
- I-15 Southbound Ramps & Nichols Road (#9) – LOS E AM peak hour only
- El Toro Road & Tereticornis Avenue (#17) – LOS D AM peak hour (with normalized PHF)

A summary of the peak hour intersection LOS for E+P (Phase 1), E+P (Phase 2), and E+P (Project Buildout) conditions are shown on Exhibits 5-4, 5-5, and 5-6, respectively, of the Project's TIA (*Technical Appendix L*). The intersection operations analysis worksheets for E+P (Phase 1), E+P (Phase 2), and E+P (Project Buildout)

traffic conditions are included in Appendices 5.1, 5.2, and 5.3 of the Project's TIA, respectively. (Urban Crossroads, 2018c, p. 94)

### *4. Traffic Signal Warrants Analysis – E+P Conditions*

There are no additional intersections anticipated to meet traffic signal warrants for E+P (Phase 1 and Phase 2) traffic conditions (see Appendices 5.4 and 5.5, respectively, of the Project's TIA [*Technical Appendix L*]). The intersection of A Street and Nichols Road is anticipated to meet the traffic signal warrant under E+P (Project Buildout) traffic conditions (see Appendix 5.6 of the Project's TIA). (Urban Crossroads, 2018c, p. 94)

### *5. Off-Ramp Queuing Analysis – E+P Conditions*

A queuing analysis was performed for the off-ramps at the I-15 Freeway and Nichols Road interchange to assess vehicle queues for the off ramps that may potentially result in deficient peak hour operations at the ramp-to-arterial intersections and may potentially "spill back" onto the I-15 Freeway mainline. Queuing analysis findings are presented in Table 4.16-15, *Peak Hour Freeway Off-Ramp Queuing Summary for E+P Conditions*, for E+P traffic conditions. It is important to note that off-ramp lengths are consistent with the measured distance between the intersection and the freeway mainline. As shown on Table 4.16-15, there are no movements that are anticipated to experience queuing issues during the weekday AM or weekday PM peak 95$^{th}$ percentile traffic flows for E+P traffic conditions. (Urban Crossroads, 2018c, p. 94)

**Table 4.16-15 Peak Hour Freeway Off-Ramp Queuing Summary for E+P Conditions**

| Intersection | Movement | Available Stacking Distance (Feet) | Existing (2018) | | | | E+P (Phase 1) | | | | E+P (Phase 2) | | | | E+P (Project Buildout) | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | 95th Percentile Queue (Feet) | | Acceptable? [1] | | 95th Percentile Queue (Feet) | | Acceptable? [1] | | 95th Percentile Queue (Feet) | | Acceptable? [1] | | 95th Percentile Queue (Feet) | | Acceptable? [1] | |
| | | | AM Peak Hour | PM Peak Hour | AM | PM | AM Peak Hour | PM Peak Hour | AM | PM | AM Peak Hour | PM Peak Hour | AM | PM | AM Peak Hour | PM Peak Hour | AM | PM |
| I-15 SB Off-Ramp & Nichols Rd. | SBL/T/R | 1,600 | 80 | 43 | Yes | Yes | 83 | 45 | Yes | Yes | 93 | 55 | Yes | Yes | 185 | 83 | Yes | Yes |
| I-15 NB Off-Ramp & Nichols Rd. | NBL/T/R | 1,530 | 495 | 128 | Yes | Yes | 520 | 138 | Yes | Yes | 640 | 195 | Yes | Yes | 1,328 | 465 | Yes | Yes |

[1] Stacking Distance is acceptable if the required stacking distance is less than or equal to the stacking distance provide

(Urban Crossroads, 2018c, Table 5-2)

Worksheets for E+P (Phase 1), E+P (Phase 2), and E+P (Project Buildout) traffic conditions offramp queuing analysis are provided in TIA Appendices 5.7, 5.8, and 5.9 for E+P traffic conditions, respectively (refer to *Technical Appendix L*). (Urban Crossroads, 2018c, p. 94)

### *6. Basic Freeway Segment Analysis – E+P Conditions*

E+P (Phase 1), E+P (Phase 2), and E+P (Project Buildout) mainline directional volumes for the weekday AM and PM peak hours are provided on Exhibits 5-7, 5-8, and 5-9, respectively, of the Project's TIA (*Technical Appendix L*). As shown on Table 4.16-16, *Basic Freeway Segment Analysis for E+P Conditions*, the basic freeway segments analyzed for this study are anticipated to operate at an acceptable LOS during the peak hours, with the addition of Project traffic. E+P (Phase 1), E+P (Phase 2), and E+P (Project Buildout) basic freeway segment analysis worksheets are provided in Appendices 5.10, 5.11, and 5.12, respectively, of the Project's TIA. (Urban Crossroads, 2018c, p. 94)

**Table 4.16-16 Basic Freeway Segment Analysis for E+P Conditions**

| Freeway | Direction | Mainline Segment | Lanes[1] | Existing (2018) | | | | E+P (Phase 1) | | | | E+P (Phase 2) | | | | E+P (Project Buildout) | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Density[2] | | LOS[3] | | Density[2] | | LOS[3] | | Density[2] | | LOS[3] | | Density[2] | | LOS[3] | |
| | | | | AM | PM | AM | PM | AM | PM | AM | PM | AM | PM | AM | PM | AM | PM | AM | PM |
| I-15 Freeway | Southbound | North of Nichols Rd. | 3 | 26.7 | 32.4 | D | D | 26.7 | 32.5 | D | D | 26.8 | 32.7 | D | D | 27.2 | 33.0 | D | D |
| | | South of Nichols Rd. | 3 | 27.4 | 33.2 | D | D | 27.5 | 33.2 | D | D | 27.7 | 33.4 | D | D | 28.0 | 33.8 | D | D |
| | Northbound | North of Nichols Rd. | 3 | 21.9 | 16.7 | C | B | 21.9 | 16.7 | C | B | 22.1 | 16.8 | C | B | 22.3 | 17.0 | C | B |
| | | South of Nichols Rd. | 3 | 22.4 | 17.1 | C | B | 22.4 | 17.1 | C | B | 22.5 | 17.3 | C | B | 22.9 | 17.5 | C | B |

[1] Number of lanes are in the specified direction and is based on existing conditions.
[2] Density is measured by passenger cars per mile per lane (pc/mi/ln).
[3] LOS = Level of Service

(Urban Crossroads, 2018c, Table 5-3)

### *7. Freeway Merge/Diverge Analysis – E+P Conditions*

Ramp merge and diverge operations were also evaluated for E+P (Phase 1), E+P (Phase 2) and E+P (Project Buildout) traffic conditions and the results of this analysis are presented in Table 4.16-17, *Freeway Ramp Junction Merge/Diverge Analysis for E+P Conditions*. As shown in Table 4.16-17, the freeway ramp merge and diverge areas are anticipated to operate at LOS D or better. E+P (Phase 1), E+P (Phase 2), and E+P (Project Buildout) freeway ramp junction operations analysis worksheets are provided in Appendices 5.13, 5.14 and 5.15 of the Project's TIA (*Technical Appendix L*). (Urban Crossroads, 2018c, p. 103)

## *D. Existing plus Ambient (EA) and Existing Plus Ambient Plus Project (EAP) – 2020 Traffic Conditions*

### *1. Roadway Improvements – EA and EAP (2020) Conditions*

The lane configurations and traffic controls assumed to be in place for EAP (2020) conditions were previously shown on Figure 4.16-2, and consist of the following: (Urban Crossroads, 2018c, p. 89)

**Table 4.16-17 Freeway Ramp Junction Merge/Diverge Analysis for E+P Conditions**

| Freeway | Direction | Ramp or Segment | Lanes on Freeway[1] | Existing (2018) | | | | E+P (Phase 1) | | | | E+P (Phase 2) | | | | E+P (Project Buildout) | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | AM Peak Hour | | PM Peak Hour | | AM Peak Hour | | PM Peak Hour | | AM Peak Hour | | PM Peak Hour | | AM Peak Hour | | PM Peak Hour | |
| | | | | Density[2] | LOS[3] | Density[2] | LOS[3] | Density[2] | LOS[3] | Density[2] | LOS[3] | Density[2] | LOS[3] | Density[2] | LOS[3] | Density[2] | LOS[3] | Density[2] | LOS[3] |
| I-15 Freeway | Southbound | Off-Ramp at Nichols Rd. | 3 | 27.2 | D | 31.2 | D | 27.2 | D | 31.2 | D | 27.3 | D | 31.4 | D | 27.7 | D | 31.6 | D |
| | | On-Ramp at Nichols Rd. | 3 | 29.5 | C | 34.3 | D | 29.5 | C | 34.3 | D | 29.7 | C | 34.4 | D | 30.0 | D | 34.8 | D |
| | Northbound | On-Ramp at Nichols Rd. | 3 | 24.1 | C | 18.5 | B | 24.1 | C | 18.5 | B | 24.3 | C | 18.6 | B | 24.5 | C | 18.8 | B |
| | | Off-Ramp at Nichols Rd. | 3 | 23.7 | C | 18.4 | C | 23.7 | C | 18.5 | C | 23.8 | C | 18.6 | C | 24.2 | D | 18.9 | B |

[1] Number of lanes are in the specified direction and is based on existing conditions.
[2] Density is measured by passenger cars per mile per lane (pc/mi/ln).
[3] LOS = Level of Service

(Urban Crossroads, 2018c, Table 5-4)

- Project driveways and those facilities assumed to be constructed by the Project to provide site access are also assumed to be in place for EAP (2020) conditions only (e.g., intersection and roadway improvements at the Project's frontage and driveways). This includes B Street between El Toro Road and Nichols Road as part of Phase 1.

### *2. EA (2020) Traffic Volume Forecasts*

To account for background traffic growth, an ambient growth from Existing conditions of 4.04% (2 percent per year compounded over 2 years) is included for EA (2020) traffic conditions. Cumulative development projects are not included as part of the EA analysis. The weekday ADT and weekday AM and PM peak hour volumes which can be expected for EA (2020) traffic conditions are shown on Exhibit 6-1 of the Project's TIA (*Technical Appendix L*). (Urban Crossroads, 2018c, p. 109)

### *3. EAP (2020) Traffic Volume Forecasts*

To account for background traffic growth, an ambient growth from Existing conditions of 4.04% (2 percent per year compounded over 2 years) is included for EAP (2020) traffic conditions, plus Phase 1 Project traffic. Cumulative development projects are not included as part of the EAP analysis. The weekday ADT and weekday AM and PM peak hour volumes which can be expected for EAP (2020) traffic conditions are shown on Exhibit 6-2 of the Project's TIA (*Technical Appendix L*). (Urban Crossroads, 2018c, p. 109)

Starting with Phase 1 (2020), the Project would provide a connection between Nichols Road and El Toro Road via B Street. As such, it is unlikely that existing through traffic would continue to utilize the existing El Toro Road to access Nichols Road once B Street provides access to Nichols Road. As such, the existing volumes at El Toro Road at Nichols Road and El Toro Road/Wood Mesa Court at El Toro Road would be reallocated to reflect the use of B Street starting in Phase 1 (2020). It is anticipated that 50% of the existing traffic would be reallocated to utilize B Street. (Urban Crossroads, 2018c, p. 109)

### *4. Intersection Operations Analysis – EA and EAP (2020) Conditions*

LOS calculations were conducted for the study intersections to evaluate their operations under EA and EAP (2020) traffic conditions with roadway and intersection geometrics consistent with those described above for EA and EAP (2020) conditions. The intersection analysis results are summarized in Table 4.16-18, *Intersection Analysis for EA and EAP (2020) Conditions*, which indicates there are no additional intersections anticipated to operate at unacceptable LOS for EA and EAP (2020) traffic conditions beyond those previously identified under Existing (2018) traffic conditions. (Urban Crossroads, 2018c, p. 112)

As previously indicated, the following intersections were shown to operate at a deficient LOS for Existing (2018) conditions. Therefore, the addition of Project traffic to the following intersections would represent cumulatively-considerable impacts of the proposed Project under EAP 2020 conditions:

- Gunnerson Street/Strickland Avenue & Riverside Drive (#5) – LOS F AM and PM peak hours
- I-15 Northbound Ramps & Nichols Road (#10) – LOS F AM peak hour only
- El Toro Road & Carmela Court (#18) – LOS F AM peak hour only

## Table 4.16-18 Intersection Analysis for EA and EAP (2020) Conditions

| # | Intersection | Traffic Control[2] | EA (2020) Delay[1] (secs.) AM | EA (2020) Delay[1] (secs.) PM | EA (2020) LOS[3] AM | EA (2020) LOS[3] PM | EAP (2020) Delay[1] (secs.) AM | EAP (2020) Delay[1] (secs.) PM | EAP (2020) LOS[3] AM | EAP (2020) LOS[3] PM |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | Lake St. & Nichols Rd. | TS | 17.3 | 30.2 | B | C | 17.4 | 30.3 | B | C |
| 2 | Lake St. & Alberhill Ranch Rd. | TS | 13.3 | 7.8 | B | A | 13.2 | 7.8 | B | A |
| 3 | Alberhill Ranch Rd. & Nichols Rd. | AWS | 11.8 | 9.9 | B | A | 11.8 | 9.9 | B | A |
| 4 | Lakeshore Dr. & Riverside Dr. (SR-74) | TS | 47.8 | 45.1 | D | D | 47.8 | 45.2 | D | D |
| 5 | Gunnerson St./Strickland Av. & Riverside Dr. (SR-74) | CSS | **97.8** | **>100.0** | **F** | **F** | **99.9** | **>100.0** | **F** | **F** |
| 6 | Collier Av. & Nichols Rd. | CSS | 21.6 | 32.1 | C | D | 21.9 | 32.7 | C | D |
| 7 | Collier Av. & Riverside Dr. (SR-74) | TS | 15.2 | 26.3 | B | C | 15.4 | 26.4 | B | C |
| 8 | Collier Av. & Central Av. (SR-74) | TS | 34.5 | 33.4 | C | C | 34.5 | 33.4 | C | C |
| 9 | I-15 Southbound Ramps & Nichols Rd. | AWS | 16.4 | 14.1 | C | B | 16.8 | 14.4 | C | B |
| 10 | I-15 Northbound Ramps & Nichols Rd. | CSS | **>100.0** | **35.3** | **F** | **E** | **>100.0** | **38.4** | **F** | **E** |
| 11 | A St. & Nichols Rd. | | Future Intersection | | | | Future Intersection | | | |
| 12 | B St. & Nichols Rd. | **CSS** | Future Intersection | | | | 14.1 | 10.9 | B | B |
| 13 | B St. & F St. | | Future Intersection | | | | Future Intersection | | | |
| 14 | B St. & H St. | | Future Intersection | | | | Future Intersection | | | |
| 15 | K St. & B St. | **CSS** | Future Intersection | | | | 9.2 | 8.9 | A | A |
| 16 | El Toro Rd. & B St. | **CSS** | Future Intersection | | | | 11.5 | 9.4 | B | A |
| 17 | El Toro Rd. & Tereticornis Av. | CSS | **>100.0** | 10.3 | **F** | B | **>100.0** | 10.3 | **F** | B |
| | *With Normalized PHF[4,5]* | CSS | 24.6 | -- | C | -- | 24.9 | -- | C | -- |
| 18 | El Toro Rd. & Carmela Ct. | CSS | **>100.0** | 11.7 | **F** | B | **>100.0** | 11.7 | **F** | B |
| | *With Normalized PHF[4,5]* | CSS | **>100.0** | -- | **F** | -- | **>100.0** | -- | **F** | -- |
| 19 | Dexter Av. & Central Av. (SR-74) | TS | 41.4 | 45.7 | D | D | 41.5 | 50.3 | D | D |
| 20 | Cambern Av. & Central Av. (SR-74) | TS | 28.4 | 28.4 | C | C | 28.4 | 28.4 | C | C |
| 21 | Driveway 1 & Nichols Rd. | **CSS** | Future Intersection | | | | Future Intersection | | | |

* **BOLD** = LOS does not meet the applicable jurisdictional requirements (i.e., unacceptable LOS).

1 stop control. For intersections with cross-street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown.

2 CSS = Cross-street Stop; AWS = All-way Stop; TS = Traffic Signal; **CSS** = Improvement

3 LOS = Level of Service

4 The two intersections of Tereticornis Avenue and Carmela Court are in close proximity to the existing Temescal Canyon High School on El Toro Road and have been evaluated with the AM existing peak hour factor from the raw count worksheet and also with a normalized peak hour factor of 0.92. Lower peak hour factors during the AM peak hour (morning drop-off) occur near schools due to the peak 10-15 minute traffic flows during the AM peak hour, which are much

5 PHF = Peak Hour Factor

(Urban Crossroads, 2018c, Table 6-1)

Although the intersection of El Toro Road and Tereticornis Avenue (#17) is anticipated to operate at an unacceptable LOS during the AM peak hour, it is anticipated to operate at an acceptable LOS with a normalized PHF (Urban Crossroads, 2018c, p. 60). As such, Project impacts to the intersection of El Toro Road and Tereticornis Avenue would be less than significant under EAP (2020) conditions.

A summary of the peak hour intersection LOS for EA and EAP (2020) traffic conditions are shown on Exhibits 6-3 and 6-4, respectively, of the Project's TIA (*Technical Appendix L*). The intersection operations analysis worksheets for EA and EAP (2020) traffic conditions are included in Appendices 6.1 and 6.2 of the Project's TIA, respectively. (Urban Crossroads, 2018c, p. 112)

### 5. *Traffic Signal Warrants Analysis – EA and EAP (2020) Conditions*

No additional study area intersections are anticipated to meet traffic signal warrants for EA and EAP (2020) traffic conditions beyond those previously warranted under Existing traffic conditions (see Appendices 6.3 and 6.4, respectively, of the Project's TIA [*Technical Appendix L*]) (Urban Crossroads, 2018c, p. 112). As previously indicated, the following intersections meet traffic signal warrants for Existing (2018) traffic conditions (Urban Crossroads, 2018c, p. 60):

- Collier Avenue & Nichols Road (#6)
- I-15 Southbound Ramps & Nichols Road (#9)
- I-15 Northbound Ramps & Nichols Road (#10)
- El Toro Road & Carmela Court (#18)

Although the signal warrant was met at the intersection of Collier Av. at Nichols Rd. (#6), Table 4.16-18 shows that this intersection would operate at an acceptable LOS B in the AM peak hour and LOS C in the PM peak hour. Accordingly, Project impacts due to signal warrants at the intersection of Collier Av. at Nichols Rd. (#6) would be less than significant under EAP (2020) conditions.

Although the signal warrant was met at the intersection of I-15 Southbound Ramps at Nichols Rd. (#9), Table 4.16-18 shows that this intersection would operate at an acceptable LOS C in the AM peak hour and LOS B in the PM peak hour. Accordingly, Project impacts due to signal warrants at the intersection of I-15 Southbound Ramps at Nichols Rd. (#9) would be less than significant under EAP (2020) conditions.

Impacts due to the need to signalize the intersections of I-15 Northbound Ramps & Nichols Road (#10) and El Toro Road & Carmela Court (#18) represent cumulatively-considerable impacts of the proposed Project under EAP (2020) conditions

### 6. *Off-Ramp Queuing Analysis – EA and EAP (2020) Conditions*

A queuing analysis was performed for the off-ramps at the I-15 Freeway and Nichols Road interchange to assess vehicle queues for the off ramps that may potentially result in deficient peak hour operations at the ramp-to-arterial intersections and may potentially "spill back" onto the I-15 Freeway mainline. Queuing analysis findings are presented in Table 4.16-19, *Peak Hour Freeway Off-Ramp Queuing Summary for EA and EAP (2020) Conditions*, for EA and EAP (2020) traffic conditions. It is important to note that off-ramp lengths are consistent with the measured distance between the intersection and the freeway mainline. As shown on Table 4.16-19, there are no movements that are anticipated to experience queuing issues during the weekday AM or weekday PM peak 95th percentile traffic flows for EA and EAP (2020) traffic conditions; therefore, no impacts would occur. Worksheets for EA and EAP (2020) conditions off-ramp queuing analysis are provided in Appendices 6.5 and 6.6, respectively, of the Project's TIA (*Technical Appendix L*). (Urban Crossroads, 2018c, p. 112)

**Table 4.16-19 Peak Hour Freeway Off-Ramp Queuing Summary for EA and EAP (2020) Conditions**

| Intersection | Movement | Available Stacking Distance (Feet) | EA (2020) 95th Percentile Queue (Feet) AM Peak Hour | EA (2020) 95th Percentile Queue (Feet) PM Peak Hour | EA (2020) Acceptable? [1] AM | EA (2020) Acceptable? [1] PM | EAP (2020) 95th Percentile Queue (Feet) AM Peak Hour | EAP (2020) 95th Percentile Queue (Feet) PM Peak Hour | EAP (2020) Acceptable? [1] AM | EAP (2020) Acceptable? [1] PM |
|---|---|---|---|---|---|---|---|---|---|---|
| I-15 SB Off-Ramp & Nichols Rd. | SBL/T/R | 1,600 | 90 | 45 | Yes | Yes | 93 | 48 | Yes | Yes |
| I-15 NB Off-Ramp & Nichols Rd. | NBL/T/R | 1,530 | 578 | 150 | Yes | Yes | 605 | 163 | Yes | Yes |

[1] Stacking Distance is acceptable if the required stacking distance is less than or equal to the stacking distance providec

(Urban Crossroads, 2018c, Table 6-2)

### *7. Basic Freeway Segment Analysis – EA and EAP (2020) Conditions*

EA and EAP (2020) mainline directional volumes for the weekday AM and PM peak hours are provided on Exhibits 6-5 and 6-6, respectively, of the Project's TIA (*Technical Appendix L*). As shown on Table 4.16-20, *Basic Freeway Segment Analysis for EA and EAP (2020) Conditions*, the freeway segments analyzed in the Project's TIA are anticipated to operate at an acceptable LOS during the peak hours under EA and EAP (2020) traffic conditions, with the exception of the following segment: (Urban Crossroads, 2018c, p. 112)

- I-15 Freeway Southbound, South of Nichols Road (#2) – LOS E PM peak hour only

As shown in Table 4.16-20, the above-listed segment would operate at a deficient LOS E without the addition of Project traffic under EA (2020) conditions. Therefore, Project impacts to the above-listed segment would be cumulatively considerable.

EA and EAP (2020) basic freeway segment analysis worksheets are provided in Appendices 6.7 and 6.8, respectively, of the Project's TIA. (Urban Crossroads, 2018c, p. 112)

### *8. Freeway Merge/Diverge Analysis – EA and EAP (2020) Conditions*

Ramp merge and diverge operations were also evaluated for EAP conditions and the results of this analysis are presented in Table 4.16-21, *Freeway Ramp Junction Merge/Diverge Analysis for EA and EAP (2020) Conditions*. As shown on Table 4.16-21, the ramp merge/diverge segments analyzed in the Project's TIA are anticipated to operate at an acceptable LOS during the peak hours under EA and EAP (2020) traffic conditions, with the exception of the following ramp junction: (Urban Crossroads, 2018c, p. 120)

- I-15 Freeway Southbound, Off-Ramp at Nichols Road (#1) – LOS E PM peak hour only

As shown in Table 4.16-21, the above-listed freeway merge/diverge location would operate at a deficient LOS without the addition of Project traffic. Thus, Project impacts to the above-listed freeway merge/diverge location would be cumulatively considerable.

## Table 4.16-20 Basic Freeway Segment Analysis for EA and EAP (2020) Conditions

| Freeway | Direction | Mainline Segment | Lanes[1] | EA (2020) | | | | EAP (2020) | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Density[2] | | LOS[3] | | Density[2] | | LOS[3] | |
| | | | | AM | PM | AM | PM | AM | PM | AM | PM |
| I-15 Freeway | Southbound | North of Nichols Rd. | 3 | 28.2 | 34.6 | D | D | 28.2 | 34.7 | D | D |
| | | South of Nichols Rd. | 3 | 29.0 | **35.5** | D | **E** | 29.0 | **35.6** | D | **E** |
| | Northbound | North of Nichols Rd. | 3 | 23.0 | 17.4 | C | B | 23.0 | 17.4 | C | B |
| | | South of Nichols Rd. | 3 | 23.5 | 17.8 | C | B | 23.5 | 17.8 | C | B |

[1] Number of lanes are in the specified direction and is based on existing conditions.

[2] Density is measured by passenger cars per mile per lane (pc/mi/ln).

[3] LOS = Level of Service

(Urban Crossroads, 2018c, Table 6-3)

## Table 4.16-21 Freeway Ramp Junction Merge/Diverge Analysis for EA and EAP (2020) Conditions

| Freeway | Direction | Ramp or Segment | Lanes on Freeway[1] | EA (2020) | | | | EAP (2020) | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | AM Peak Hour | | PM Peak Hour | | AM Peak Hour | | PM Peak Hour | |
| | | | | Density[2] | LOS[3] | Density[2] | LOS[3] | Density[2] | LOS[3] | Density[2] | LOS[3] |
| I-15 Freeway | Southbound | Off-Ramp at Nichols Rd. | 3 | 28.4 | D | **32.5** | E | 28.4 | D | **32.5** | E |
| | | On-Ramp at Nichols Rd. | 3 | 30.9 | D | 36.1 | D | 31.0 | D | 36.2 | D |
| | Northbound | On-Ramp at Nichols Rd. | 3 | 25.2 | C | 19.3 | B | 25.2 | C | 19.3 | B |
| | | Off-Ramp at Nichols Rd. | 3 | 24.7 | C | 19.1 | C | 24.7 | C | 19.2 | C |

[1] Number of lanes are in the specified direction and is based on existing conditions.

[2] Density is measured by passenger cars per mile per lane (pc/mi/ln).

[3] LOS = Level of Service

(Urban Crossroads, 2018c, p. 120)

EA and EAP (2020) freeway ramp junction operations analysis worksheets are provided in Appendices 6.9 and 6.10, respectively, of the Project's TIA (*Technical Appendix L*). (Urban Crossroads, 2018c, p. 120)

## *E. Existing plus Ambient (EA) and Existing plus Ambient plus Project (EAP) – 2021 Traffic Conditions*

### *1. Roadway Improvements – EA and EAP (2021) Conditions*

The lane configurations and traffic controls assumed to be in place for EAP (2021) conditions were previously shown on Figure 4.16-2, and consist of the following: (Urban Crossroads, 2018c, p. 123)

- Project driveways and those facilities assumed to be constructed by the Project to provide site access are also assumed to be in place for EAP (2021) conditions only (e.g., intersection and roadway improvements at the Project's frontage and driveways). This includes B Street between El Toro Road and Nichols Road as part of Phase 1.

### *2. EA (2021) Traffic Volume Forecasts*

To account for background traffic growth, an ambient growth from Existing conditions of 6.12% (2 percent per year compounded over 3 years) is included for EA (2021) traffic conditions. Cumulative development projects are not included as part of the EA analysis. The weekday ADT and weekday AM and PM peak hour volumes which can be expected for EA (2021) traffic conditions are shown on Exhibit 7-1 of the Project's TIA (*Technical Appendix L*). (Urban Crossroads, 2018c, p. 123)

### *3. EAP (2021) Traffic Volume Forecasts*

To account for background traffic growth, an ambient growth from Existing conditions of 6.12% (2 percent per year compounded over 3 years) is included for EAP (2021) traffic conditions, plus Phase 1 and Phase 2 Project traffic. Cumulative development projects are not included as part of the EAP analysis. The weekday ADT and weekday AM and PM peak hour volumes which can be expected for EAP (2021) traffic conditions are shown on Exhibit 7-2 of the Project's TIA (*Technical Appendix L*). (Urban Crossroads, 2018c, p. 123)

### *4. Intersection Operations Analysis – EA and EAP (2021) Conditions*

LOS calculations were conducted for the study intersections to evaluate their operations under EAP conditions with roadway and intersection geometrics consistent with those described above for EA and EAP (2021) conditions. The intersection analysis results are summarized in Table 4.16-22, *Intersection Analysis for EA and EAP (2021) Conditions*, which indicates that the following additional intersection is anticipated to operate at unacceptable LOS for EA (2021) traffic conditions, in addition to those previously identified under EA (2020) traffic conditions: (Urban Crossroads, 2018c, p. 123)

- El Toro Road & Tereticornis Avenue (#17) – LOS D AM peak hour only (with normalized PHF)

Because the Project would contribute to, but would not directly cause, the impact at the above-listed intersection, Project impacts to the intersection of El Toro Road at Tereticornis Avenue (#17) would be cumulatively considerable under EAP (2021) conditions.

## Table 4.16-22 Intersection Analysis for EA and EAP (2021) Conditions

| # | Intersection | Traffic Control[2] | EA (2021) Delay[1] (secs.) AM | EA (2021) Delay[1] (secs.) PM | EA (2021) Level of Service AM | EA (2021) Level of Service PM | EAP (2021) Delay[1] (secs.) AM | EAP (2021) Delay[1] (secs.) PM | EAP (2021) LOS[3] AM | EAP (2021) LOS[3] PM |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | Lake St. & Nichols Rd. | TS | 17.9 | 33.6 | B | C | 18.3 | 34.1 | B | C |
| 2 | Lake St. & Alberhill Ranch Rd. | TS | 13.8 | 8.0 | B | A | 13.8 | 8.0 | B | A |
| 3 | Alberhill Ranch Rd. & Nichols Rd. | AWS | 12.0 | 10.0 | B | A | 12.1 | 10.1 | B | B |
| 4 | Lakeshore Dr. & Riverside Dr. (SR-74) | TS | 49.2 | 46.5 | D | D | 49.8 | 46.8 | D | D |
| 5 | Gunnerson St./Strickland Av. & Riverside Dr. (SR-74) | CSS | **>100.0** | **>100.0** | **F** | **F** | **>100.0** | **>100.0** | **F** | **F** |
| 6 | Collier Av. & Nichols Rd. | CSS | 22.4 | 34.0 | C | D | 24.3 | **37.3** | C | **E** |
| 7 | Collier Av. & Riverside Dr. (SR-74) | TS | 15.5 | 27.2 | B | C | 16.0 | 28.1 | B | C |
| 8 | Collier Av. & Central Av. (SR-74) | TS | 34.7 | 33.6 | C | C | 34.7 | 33.6 | C | C |
| 9 | I-15 Southbound Ramps & Nichols Rd. | AWS | 16.9 | 14.5 | C | B | 18.7 | 16.4 | C | C |
| 10 | I-15 Northbound Ramps & Nichols Rd. | CSS | **>100.0** | **38.2** | **F** | **E** | **>100.0** | **66.3** | **F** | **F** |
| 11 | A St. & Nichols Rd. | **CSS** | Future Intersection | | | | 16.6 | 12.4 | C | B |
| 12 | B St. & Nichols Rd. | **CSS** | Future Intersection | | | | 15.4 | 11.4 | C | B |
| 13 | B St. & F St. | **CSS** | Future Intersection | | | | 11.7 | 10.3 | B | B |
| 14 | B St. & H St. | **CSS** | Future Intersection | | | | 0.0 | 0.0 | A | A |
| 15 | K St. & B St. | **CSS** | Future Intersection | | | | 10.0 | 9.3 | B | A |
| 16 | El Toro Rd. & B St. | **CSS** | Future Intersection | | | | 11.8 | 9.4 | B | A |
| 17 | El Toro Rd. & Tereticornis Av. | CSS | **>100.0** | 10.4 | **F** | B | **>100.0** | 10.5 | **F** | B |
| | *With Normalized PHF[5,6]* | CSS | **25.8** | -- | **D** | -- | **27.0** | -- | **D** | -- |
| 18 | El Toro Rd. & Carmela Ct. | CSS | **>100.0** | 11.7 | **F** | B | **>100.0** | 12.0 | **F** | B |
| | *With Normalized PHF[5,6]* | CSS | **>100.0** | -- | **F** | -- | **>100.0** | -- | **F** | -- |
| 19 | Dexter Av. & Central Av. (SR-74) | TS | 42.5 | 46.9 | D | D | 42.8 | 53.4 | D | D |
| 20 | Cambern Av. & Central Av. (SR-74) | TS | 29.8 | 29.2 | C | C | 29.9 | 29.2 | C | C |
| 21 | Driveway 1 & Nichols Rd. | **CSS** | Future Intersection | | | | Future Intersection | | | |

* **BOLD** = LOS does not meet the applicable jurisdictional requirements (i.e., unacceptable LOS).

1 Per the Highway Capacity Manual (6th Edition), overall average intersection delay and level of service are shown for intersections with a traffic signal or all way stop control. For intersections with cross-street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown.

2 CSS = Cross-street Stop; AWS = All-way Stop; TS = Traffic Signal; **CSS** = Improvement

3 LOS = Level of Service

4 For buildout conditions, the intersection is evaluated with a traffic signal, an eastbound right-turn pocket and striping the northbound approach to a left turn and right turn lane.

5 The two intersections of Tereticornis Avenue and Carmela Court are in close proximity to the existing Temescal Canyon High School on El Toro Road and have been evaluated with the AM existing peak hour factor from the raw count worksheet and also with a normalized peak hour factor of 0.92. Lower peak hour factors during the AM peak hour (morning drop-off) occur near schools due to the peak 10-15 minute traffic flows during the AM peak hour, which are much

6 PHF = Peak Hour Factor

(Urban Crossroads, 2018c, Table 7-1)

With the addition of Phase 2 Project traffic, the following additional intersection is anticipated to operate at an unacceptable LOS during one or more peak hours under EAP (2021) traffic conditions: (Urban Crossroads, 2018c, p. 123)

- Collier Avenue & Nichols Road (#6) – LOS E PM peak hour only

Because Project traffic would directly cause the LOS deficiency at the above-listed intersection, Project impacts to the intersection of Collier Avenue at Nichols Road (#6) represent a direct impact of the proposed Project under Phase 2 (EAP 2021) conditions.

As previously indicated, the following intersections were shown to operate at a deficient LOS for Existing (2018) conditions. Therefore, the addition of Project traffic to the following facilities would represent cumulatively-considerable impacts of Phase 2 (EAP 2021 conditions) of the proposed Project:

- Gunnerson Street/Strickland Avenue & Riverside Drive (#5) – LOS F AM and PM peak hours
- I-15 Northbound Ramps & Nichols Road (#10) – LOS F AM and PM peak hours
- El Toro Road & Carmela Court (#18) – LOS F AM peak hour only

A summary of the peak hour intersection LOS for EA and EAP (2021) traffic conditions are shown on Exhibits 7-3 and 7-4, respectively. The intersection operations analysis worksheets for EA and EAP (2021) traffic conditions are included in Appendices 7.1 and 7.2 of the Project's TIA, respectively (*Technical Appendix L*). (Urban Crossroads, 2018c, p. 127)

### *5. Traffic Signal Warrant Analysis – EA and EAP (2021) Conditions*

No additional study area intersections are anticipated to meet traffic signal warrants for EA and EAP (2021) traffic conditions in addition to those previously warranted under Existing traffic conditions (see Appendices 7.3 and 7.4, respectively, of the Project's TIA [*Technical Appendix L*]) (Urban Crossroads, 2018c, p. 127). As previously indicated, the following intersections meet traffic signal warrants for Existing (2018) traffic conditions (Urban Crossroads, 2018c, p. 60):

- Collier Avenue & Nichols Road (#6)
- I-15 Southbound Ramps & Nichols Road (#9)
- I-15 Northbound Ramps & Nichols Road (#10)
- El Toro Road & Carmela Court (#18)

However, as shown in Table 4.16-22 the intersection of I-15 Southbound Ramps & Nichols Road (#9) would operate at an acceptable LOS C during both peak hours under EAP (2021) conditions; therefore, impacts due to the need for signalization would be less than significant.

The addition of Project traffic to the remaining three intersections listed above represent cumulatively-considerable impacts of the proposed Project under EAP (2021) conditions due to traffic signal warrants.

### *6. Off-Ramp Queuing Analysis – EA and EAP (2021) Conditions*

A queuing analysis was performed for the off-ramps at the I-15 Freeway and Nichols Road interchange to assess vehicle queues for the off ramps that may potentially result in deficient peak hour operations at the ramp-to-arterial intersections and may potentially "spill back" onto the I-15 Freeway mainline. Queuing analysis findings are presented in Table 4.16-23, *Peak Hour Freeway Off-Ramp Queuing Summary for EA and EAP (2021) Conditions*, for EA and EAP (2021) traffic conditions. It is important to note that off-ramp lengths are consistent with the measured distance between the intersection and the freeway mainline. As shown on Table 4.16-23, there are no movements that are anticipated to experience queuing issues during the weekday AM or weekday PM peak 95th percentile traffic flows for EA and EAP (2021) traffic conditions; therefore, no

impacts would occur. Worksheets for EA and EAP (2021) conditions off-ramp queuing analysis are provided in Appendices 7.5 and 7.6, respectively, of the Project's TIA (*Technical Appendix L*). (Urban Crossroads, 2018c, p. 127)

**Table 4.16-23 Peak Hour Freeway Off-Ramp Queuing Summary for EA and EAP (2021) Conditions**

| Intersection | Movement | Available Stacking Distance (Feet) | EA (2021) | | | | EAP (2021) | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | 95th Percentile Queue (Feet) | | Acceptable?[1] | | 95th Percentile Queue (Feet) | | Acceptable?[1] | |
| | | | AM Peak Hour | PM Peak Hour | AM | PM | AM Peak Hour | PM Peak Hour | AM | PM |
| I-15 SB Off-Ramp & Nichols Rd. | SBL/T/R | 1,600 | 93 | 48 | Yes | Yes | 108 | 63 | Yes | Yes |
| I-15 NB Off-Ramp & Nichols Rd. | NBL/T/R | 1,530 | 623 | 163 | Yes | Yes | 773 | 250 | Yes | Yes |

[1] Stacking Distance is acceptable if the required stacking distance is less than or equal to the stacking distance providec

(Urban Crossroads, 2018c, Table 7-2)

### *7. Basic Freeway Segment Analysis – EA and EAP (2021) Conditions*

EA and EAP (2021) mainline directional volumes for the weekday AM and PM peak hours are provided on Exhibits 7-5 and 7-6, respectively, of the Project's TIA (*Technical Appendix L*). As shown on *Table 4.16-24, Basic Freeway Segment Analysis for EA and EAP (2021) Conditions*, the freeway segments analyzed in the Project's TIA are anticipated to operate at an acceptable LOS during the peak hours under EA and EAP (2021) traffic conditions, with the exception of the following segment and the segment previously identified under EA and EAP (2020) conditions:

- I-15 Freeway Southbound, North of Nichols Road (#1) – LOS E PM peak hour only

As shown in Table 4.16-24, the above-listed freeway segment would operate at a deficient LOS under EA (2021) conditions. Thus, the addition of Project traffic to this freeway segment represents a cumulatively-considerable impact of the proposed Project.

Additionally, and as previously noted, the following freeway segment was shown to operate at a deficient LOS under EA (2020) conditions; thus, the addition of Project traffic to the following freeway segment also represents a cumulatively-considerable impact of the proposed Project under EAP (2021) conditions:

- I-15 Freeway Southbound, South of Nichols Road (#2) – LOS E PM peak hour only

EA and EAP (2021) basic freeway segment analysis worksheets are provided in Appendices 7.7 and 7.8, respectively, of the Project's TIA.

**Table 4.16-24 Basic Freeway Segment Analysis for EA and EAP (2021) Conditions**

| Freeway | Direction | Mainline Segment | Lanes[1] | EA (2021) | | | | EAP (2021) | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Density[2] | | LOS[3] | | Density[2] | | LOS[3] | |
| | | | | AM | PM | AM | PM | AM | PM | AM | PM |
| I-15 Freeway | Southbound | North of Nichols Rd. | 3 | 29.0 | **35.8** | D | **E** | 29.0 | **36.2** | D | **E** |
| | | South of Nichols Rd. | 3 | 29.9 | **36.8** | D | **E** | 30.1 | **37.0** | D | **E** |
| | Northbound | North of Nichols Rd. | 3 | 23.5 | 17.7 | C | B | 23.7 | 17.8 | C | B |
| | | South of Nichols Rd. | 3 | 24.1 | 18.2 | C | C | 24.2 | 18.3 | C | C |

[1] Number of lanes are in the specified direction and is based on existing conditions.

[2] Density is measured by passenger cars per mile per lane (pc/mi/ln).

[3] LOS = Level of Service

(Urban Crossroads, 2018c, Table 7-3)

### *8. Freeway Merge/Diverge Analysis – EA and EAP (2021) Conditions*

Ramp merge and diverge operations were also evaluated for EA and EAP (2021) traffic conditions and the results of this analysis are presented in Table 4.16-25, *Freeway Ramp Junction Merge/Diverge Analysis for EA and EAP (2021) Conditions*. As shown on Table 4.16-25, there are no additional ramp merge/diverge junction areas anticipated to operate at an unacceptable LOS during the peak hours for EA and EAP (2021) traffic conditions, in addition to the location previously identified under EA (2020) traffic conditions. (Urban Crossroads, 2018c, p. 134) As previously indicated, the following freeway merge/diverge analysis location would operate at a deficient LOS under EA (2020) conditions; thus, the addition of Project traffic to the following merge/diverge location represents a cumulatively-considerable impact under EAP (2021) conditions:

- I-15 Freeway Southbound, Off-Ramp at Nichols Road (#1) – LOS E PM peak hour only

EA and EAP (2021) freeway ramp junction operations analysis worksheets are provided in Appendices 7.9 and 7.10, respectively, of the Project's TIA (*Technical Appendix L*). (Urban Crossroads, 2018c, p. 134)

## *F. Existing plus Ambient (EA) and Existing plus Ambient plus Project (EAP) – 2024 Conditions*

### *1. Roadway Improvements – EA and EAP (2024) Conditions*

The lane configurations and traffic controls assumed to be in place for EAP (2021) conditions were previously shown on Figure 4.16-2, and consist of the following: (Urban Crossroads, 2018c, p. 139)

- Project driveways and those facilities assumed to be constructed by the Project to provide site access are also assumed to be in place for EAP conditions only (e.g., intersection and roadway improvements

at the Project's frontage and driveways). This includes B Street between El Toro Road and Nichols Road as part of Phase 1.

**Table 4.16-25 Freeway Ramp Junction Merge/Diverge Analysis for EA and EAP (2021) Conditions**

| Freeway | Direction | Ramp or Segment | Lanes on Freeway[1] | EA (2021) | | | | EAP (2021) | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | AM Peak Hour | | PM Peak Hour | | AM Peak Hour | | PM Peak Hour | |
| | | | | Density[2] | LOS[3] | Density[2] | LOS[3] | Density[2] | LOS[3] | Density[2] | LOS[3] |
| I-15 Freeway | Southbound | Off-Ramp at Nichols Rd. | 3 | 28.9 | D | **33.2** | **E** | 29.0 | D | **33.4** | **E** |
| | | On-Ramp at Nichols Rd. | 3 | 31.7 | D | 36.1 | D | 31.9 | D | 37.3 | D |
| | Northbound | On-Ramp at Nichols Rd. | 3 | 25.7 | C | 19.7 | B | 25.9 | C | 19.8 | B |
| | | Off-Ramp at Nichols Rd. | 3 | 25.2 | D | 19.6 | C | 25.2 | D | 19.8 | C |

[1] Number of lanes are in the specified direction and is based on existing conditions.

[2] Density is measured by passenger cars per mile per lane (pc/mi/ln).

[3] LOS = Level of Service

(Urban Crossroads, 2018c, Table 7-4)

### *2. EA (2024) Traffic Volume Forecasts*

To account for background traffic growth, an ambient growth from Existing conditions of 12.62% (2 percent per year compounded over 6 years) is included for EA (2024) traffic conditions. Cumulative development projects are not included as part of the EA analysis. The weekday ADT and weekday AM and PM peak hour volumes which can be expected for EA (2024) traffic conditions are shown on Exhibit 8-1 of the Project's TIA (*Technical Appendix L*). (Urban Crossroads, 2018c, p. 139)

### *3. EAP (2024) Traffic Volume Forecasts*

To account for background traffic growth, an ambient growth from Existing conditions of 12.62% (2 percent per year compounded over 6 years) is included for EAP (2024) traffic conditions, plus Project Buildout traffic. Cumulative development projects are not included as part of the EAP analysis. The weekday ADT and weekday AM and PM peak hour volumes which can be expected for EAP (2024) traffic conditions are shown on Exhibit 8-2 of the Project's TIA (*Technical Appendix L*). (Urban Crossroads, 2018c, p. 139)

### *4. Intersection Operations Analysis – EA and EAP (2024) Conditions*

LOS calculations were conducted for the study intersections to evaluate their operations under EAP conditions with roadway and intersection geometrics consistent with those described above for EA and EAP (2024) conditions. The intersection analysis results are summarized in Table 4.16-26, *Intersection Analysis for EA and EAP (2024) Conditions*, which indicates that the following additional intersection is anticipated to operate

at unacceptable LOS for EA (2024) traffic conditions, in addition to those previously identified under EA and EAP (2021) traffic conditions: (Urban Crossroads, 2018c, p. 139)

- Lakeshore Drive & Riverside Drive (SR-74) (#4) – LOS E AM peak hour only

**Table 4.16-26 Intersection Analysis for EA and EAP (2024) Conditions**

| # | Intersection | Traffic Control[2] | EA (2024) Delay[1] (secs.) AM | EA (2024) Delay[1] (secs.) PM | EA (2024) Level of Service AM | EA (2024) Level of Service PM | EAP (2024) Delay[1] (secs.) AM | EAP (2024) Delay[1] (secs.) PM | EAP (2024) LOS[3] AM | EAP (2024) LOS[3] PM |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | Lake St. & Nichols Rd. | TS | 20.2 | 46.9 | C | D | 24.7 | 54.5 | C | D |
| 2 | Lake St. & Alberhill Ranch Rd. | TS | 15.9 | 8.8 | B | A | 17.7 | 9.7 | B | A |
| 3 | Alberhill Ranch Rd. & Nichols Rd. | AWS | 12.8 | 10.4 | B | B | 15.7 | 11.4 | C | B |
| 4 | Lakeshore Dr. & Riverside Dr. (SR-74) | TS | **55.2** | 51.6 | **E** | D | **56.4** | 53.3 | **E** | D |
| 5 | Gunnerson St./Strickland Av. & Riverside Dr. (SR-74) | CSS | **>100.0** | **>100.0** | **F** | **F** | **>100.0** | **>100.0** | **F** | **F** |
| 6 | Collier Av. & Nichols Rd. | CSS | 24.8 | **41.4** | C | **E** | **47.2** | **94.2** | **E** | **F** |
| 7 | Collier Av. & Riverside Dr. (SR-74) | TS | 16.3 | 31.2 | B | C | 19.3 | 37.1 | B | D |
| 8 | Collier Av. & Central Av. (SR-74) | TS | 35.3 | 34.3 | D | C | 35.3 | 34.6 | D | D |
| 9 | I-15 Southbound Ramps & Nichols Rd. | AWS | 19.1 | 16.0 | C | C | **68.4** | **37.2** | **F** | **E** |
| 10 | I-15 Northbound Ramps & Nichols Rd. | CSS | **>100.0** | **52.6** | **F** | **F** | **>100.0** | **>100.0** | **F** | **F** |
| 11 | A St. & Nichols Rd. | **CSS/TS**[4] | Future Intersection | | | | 16.6 | 13.1 | B | B |
| 12 | B St. & Nichols Rd. | **CSS** | Future Intersection | | | | 16.7 | 11.7 | C | B |
| 13 | B St. & F St. | **CSS** | Future Intersection | | | | 11.8 | 10.2 | B | B |
| 14 | B St. & H St. | **CSS** | Future Intersection | | | | 10.0 | 9.1 | B | A |
| 15 | K St. & B St. | **CSS** | Future Intersection | | | | 10.8 | 9.8 | B | A |
| 16 | El Toro Rd. & B St. | **CSS** | Future Intersection | | | | 13.0 | 9.8 | B | A |
| 17 | El Toro Rd. & Tereticornis Av. | CSS | **>100.0** | 10.6 | **F** | B | **>100.0** | 11.1 | **F** | B |
| | *With Normalized PHF*[5,6] | CSS | **29.5** | -- | **D** | -- | **51.2** | -- | **F** | -- |
| 18 | El Toro Rd. & Carmela Ct. | CSS | **>100.0** | 12.1 | **F** | B | **>100.0** | 13.4 | **F** | B |
| | *With Normalized PHF*[5,6] | CSS | **>100.0** | -- | **F** | -- | **>100.0** | -- | **F** | -- |
| 19 | Dexter Av. & Central Av. (SR-74) | TS | 48.0 | 52.8 | D | D | 50.7 | 54.8 | D | D |
| 20 | Cambern Av. & Central Av. (SR-74) | TS | 36.9 | 31.8 | D | C | 39.2 | 32.3 | D | C |
| 21 | Driveway 1 & Nichols Rd. | **CSS** | Future Intersection | | | | 13.1 | 10.5 | B | B |

* **BOLD** = LOS does not meet the applicable jurisdictional requirements (i.e., unacceptable LOS).

1 Per the Highway Capacity Manual (6th Edition), overall average intersection delay and level of service are shown for intersections with a traffic signal or all way stop control. For intersections with cross-street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown.

2 CSS = Cross-street Stop; AWS = All-way Stop; TS = Traffic Signal; **CSS** = Improvement

3 LOS = Level of Service

4 For buildout conditions, the intersection is evaluated with a traffic signal, an eastbound right-turn pocket and striping the northbound approach to a left turn and right turn lane.

5 The two intersections of Tereticornis Avenue and Carmela Court are in close proximity to the existing Temescal Canyon High School on El Toro Road and have been evaluated with the AM existing peak hour factor from the raw count worksheet and also with a normalized peak hour factor of 0.92. Lower peak hour factors during the AM peak hour (morning drop-off) occur near schools due to the peak 10-15 minute traffic flows during the AM peak hour, which are much

6 PHF = Peak Hour Factor

(Urban Crossroads, 2018c, Table 8-1)

Because the Project would contribute to but would not directly cause the above-listed deficiency, the Project's impacts to the intersection of Lakeshore Drive and Riverside Drive (SR-74) (#4) would be cumulatively considerable under EAP (2024) conditions.

Table 4.16-26 shows that with the addition of Project Buildout traffic, the following additional intersection is anticipated to operate at an unacceptable LOS during one or more peak hours under EAP (2024) traffic conditions, in addition to the locations previously identified under EA (2024) traffic conditions: (Urban Crossroads, 2018c, p. 139)

- I-15 Southbound Ramps & Nichols Road (#9) – LOS F AM peak hour, LOS E PM peak hour

The above-listed deficiency would be directly caused by Project-related traffic; therefore, Project impacts to the intersection of I-15 Southbound Ramps at Nichols Road (#9) represent a direct impact of the proposed Project.

Additionally, the addition of Project traffic to the following intersections that were shown to be impacted under EA and/or EAP (2021) conditions also would represent cumulatively-considerable impacts of the proposed Project under EAP (2024) conditions:

- Gunnerson Street/Strickland Avenue & Riverside Drive (#5) – LOS F AM and PM peak hours
- Collier Avenue & Nichols Road (#6) – LOS E AM peak hour and LOS F PM peak hour
- I-15 Northbound Ramps & Nichols Road (#10) – LOS F AM and PM peak hours
- El Toro Road & Tereticornis Avenue (#17) – LOS F AM peak hour only (with normalized PHF)
- El Toro Road & Carmela Court (#18) – LOS F AM peak hour only (with normalized PHF)

A summary of the peak hour intersection LOS for EA and EAP (2024) traffic conditions are shown on Exhibits 8-3 and 8-4, respectively, of the Project's TIA (*Technical Appendix L*). The intersection operations analysis worksheets for EA and EAP (2024) traffic conditions are included in Appendices 8.1 and 8.2 of the Project's TIA, respectively. (Urban Crossroads, 2018c, p. 143)

### *5. Traffic Signal Warrant Analysis – EA and EAP (2024) Conditions*

No additional study area intersections are anticipated to meet traffic signal warrants for EA and EAP (2024) traffic conditions in addition to those previously warranted under Existing traffic conditions (see Appendix 8.3 of the Project's TIA, *Technical Appendix L*). (Urban Crossroads, 2018c, p. 143)

The intersection of Alberhill Ranch Road & Nichols Road (#3) is anticipated to meet the traffic signal warrant under EAP (2024) traffic conditions (see Appendix 8.4 of the Project's TIA). However, this intersection operates at an acceptable LOS for EAP (2024) traffic conditions. As such, the intersection should be monitored, and a traffic signal should be installed at the discretion of the City of Lake Elsinore Traffic Engineer. Project impacts to the intersection of Alberhill Ranch Road & Nichols Road due to signal warrants would be less than significant. (Urban Crossroads, 2018c, p. 143)

As previously indicated, the following intersections meet traffic signal warrants for Existing (2018) traffic conditions; therefore, the addition of Project traffic to the following intersections represent cumulatively-considerable impacts of the proposed Project under EAP (2024) conditions (Urban Crossroads, 2018c, p. 60):

- Collier Avenue & Nichols Road (#6)
- I-15 Southbound Ramps & Nichols Road (#9)
- I-15 Northbound Ramps & Nichols Road (#10)
- El Toro Road & Carmela Court (#18)

### *6. Off-Ramp Queuing Analysis – EA and EAP (2024) Conditions*

A queuing analysis was performed for the off-ramps at the I-15 Freeway and Nichols Road interchange to assess vehicle queues for the off ramps that may potentially result in deficient peak hour operations at the ramp-to-arterial intersections and may potentially "spill back" onto the I-15 Freeway mainline. Queuing analysis findings are presented in Table 4.16-27, *Peak Hour Freeway Off-Ramp Queuing Summary for EA and EAP (2024) Conditions*, for EA and EAP (2024) traffic conditions. It is important to note that off-ramp lengths are consistent with the measured distance between the intersection and the freeway mainline. As shown on Table 4.16-27, the I-15 Northbound off-ramp at Nichols Road is anticipated to experience queuing issues under EAP (2024) traffic conditions for the northbound shared left-through-right turn lane during the AM peak hour only. This represents a direct impact of the proposed Project under EAP (2024) conditions. Worksheets for EA and EAP (2024) conditions off-ramp queuing analysis are provided in Appendices 8.5 and 8.6, respectively, of the Project's TIA (*Technical Appendix L*). (Urban Crossroads, 2018c, p. 143)

**Table 4.16-27 Peak Hour Freeway Off-Ramp Queuing Summary for EA and EAP (2024) Conditions**

| Intersection | Movement | Available Stacking Distance (Feet) | EA (2024) | | | | EAP (2024) | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | 95th Percentile Queue (Feet) | | Acceptable?[1] | | 95th Percentile Queue (Feet) | | Acceptable?[1] | |
| | | | AM Peak Hour | PM Peak Hour | AM | PM | AM Peak Hour | PM Peak Hour | AM | PM |
| I-15 SB Off-Ramp & Nichols Rd. | SBL/T/R | 1,600 | 110 | 55 | Yes | Yes | 235 | 105 | Yes | Yes |
| I-15 NB Off-Ramp & Nichols Rd. | NBL/T/R | 1,530 | 758 | 213 | Yes | Yes | **1,563** | 653 | **No** | Yes |

[1] Stacking Distance is acceptable if the required stacking distance is less than or equal to the stacking distance providec

(Urban Crossroads, 2018c, Table 8-2)

### *7. Basic Freeway Segment Analysis – EA and EAP (2024) Conditions*

EA and EAP (2024) mainline directional volumes for the weekday AM and PM peak hours are provided on Exhibits 8-5 and 8-6, respectively of the Project's TIA (*Technical Appendix L*). As shown on Table 4.16-28, *Basic Freeway Segment Analysis for EA and EAP (2024) Conditions*, there are no additional freeway segments anticipated to operate at an unacceptable LOS under EA and EAP (2024) traffic conditions, in addition to those previously identified under EA and EAP (2021) traffic conditions. (Urban Crossroads, 2018c, p. 143)

The Project would contribute traffic to the following freeway segments that were previously-identified as being cumulatively impacted by the Project; thus, Project impacts to the following freeway mainline segments would be cumulatively considerable under EAP (2024) conditions:

- I-15 Freeway Southbound, North of Nichols Road (#1) – LOS E PM peak hour only

- I-15 Freeway Southbound, South of Nichols Road (#2) – LOS E PM peak hour only

**Table 4.16-28 Basic Freeway Segment Analysis for EA and EAP (2024) Conditions**

| Freeway | Direction | Mainline Segment | Lanes[1] | EA (2024) | | | | EAP (2024) | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Density[2] | | LOS[3] | | Density[2] | | LOS[3] | |
| | | | | AM | PM | AM | PM | AM | PM | AM | PM |
| I-15 Freeway | Southbound | North of Nichols Rd. | 3 | 29.0 | **40.1** | D | **E** | 29.6 | **40.9** | D | **E** |
| | | South of Nichols Rd. | 3 | 32.8 | **41.3** | D | **E** | 30.5 | **42.1** | D | **E** |
| | Northbound | North of Nichols Rd. | 3 | 25.3 | 18.9 | C | C | 23.9 | 19.2 | C | C |
| | | South of Nichols Rd. | 3 | 26.0 | 19.3 | C | C | 24.6 | 19.7 | C | C |

[1] Number of lanes are in the specified direction and is based on existing conditions.

[2] Density is measured by passenger cars per mile per lane (pc/mi/ln).

[3] LOS = Level of Service

(Urban Crossroads, 2018c, Table 8-3)

EA and EAP (2024) basic freeway segment analysis worksheets are provided in Appendices 8.7 and 8.8, respectively, of the Project's TIA. (Urban Crossroads, 2018c, p. 143)

### *8. Freeway Merge/Diverge Analysis – EA and EAP (2024) Conditions*

Ramp merge and diverge operations were also evaluated for EA and EAP (2024) conditions and the results of this analysis are presented in Table 4.16-29, *Freeway Ramp Junction Merge/Diverge Analysis for EA and EAP (2024) Conditions*. As shown on Table 4.16-29, there are no additional ramp merge/diverge segments anticipated to operate at an unacceptable LOS under EA and EAP (2024) traffic conditions, in addition to those previously identified under EAP (2021) traffic conditions. (Urban Crossroads, 2018c, p. 143) The following freeway merge/diverge location was shown to operate at a deficient LOS under EA (2021) conditions; thus, Project impacts to the following freeway merge/diverge location would be cumulatively considerable under EAP (2024) conditions:

- I-15 Freeway Southbound, Off-Ramp at Nichols Road (#1) – LOS E PM peak hour only

EA and EAP (2024) freeway ramp junction operations analysis worksheets are provided in Appendices 8.9 and 8.10, respectively, of the Project's TIA (*Technical Appendix L*). (Urban Crossroads, 2018c, p. 143)

**Table 4.16-29 Freeway Ramp Junction Merge/Diverge Analysis for EA and EAP (2024) Conditions**

| Freeway | Direction | Ramp or Segment | Lanes on Freeway[1] | EA (2024) | | | | EAP (2024) | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | AM Peak Hour | | PM Peak Hour | | AM Peak Hour | | PM Peak Hour | |
| | | | | Density[2] | LOS[3] | Density[2] | LOS[3] | Density[2] | LOS[3] | Density[2] | LOS[3] |
| I-15 Freeway | Southbound | Off-Ramp at Nichols Rd. | 3 | 30.8 | D | **35.3** | **E** | 31.3 | D | **35.8** | **E** |
| | | On-Ramp at Nichols Rd. | 3 | 34.0 | D | 40.3 | D | 34.6 | D | 41.0 | D |
| | Northbound | On-Ramp at Nichols Rd. | 3 | 27.5 | C | 21.0 | C | 27.9 | C | 21.1 | C |
| | | Off-Ramp at Nichols Rd. | 3 | 26.8 | D | 20.8 | C | 27.3 | D | 21.2 | C |

[1] Number of lanes are in the specified direction and is based on existing conditions.

[2] Density is measured by passenger cars per mile per lane (pc/mi/ln).

[3] LOS = Level of Service

(Urban Crossroads, 2018c, Table 8-4)

## G. *Existing plus Ambient plus Project plus Cumulative (EAPC) Conditions*

### 1. *Roadway Improvements – EAPC Conditions*

The lane configurations and traffic controls assumed to be in place for EAPC conditions are consistent with the following improvements discussed below (Urban Crossroads, 2018c, p. 157):

- Project driveways and those facilities assumed to be constructed by the Project to provide site access are also assumed to be in place for EAPC conditions only (e.g., intersection and roadway improvements at the Project's frontage and driveways). This includes B Street between El Toro Road and Nichols Road as part of Phase 1.

- Driveways and those facilities assumed to be constructed by cumulative developments to provide site access are also assumed to be in place for EAPC conditions only (e.g., intersection and roadway improvements along the cumulative development's frontages and driveways).

### 2. *EAPC Traffic Volume Forecasts*

To account for background traffic growth, an ambient growth from Existing conditions of 4.04% (2 percent per year compounded over 2 years) is included for EAPC (2020) traffic conditions, an ambient growth from Existing conditions of 6.12% (2 percent per year compounded over 3 years) is included for EAPC (2021) traffic conditions, and an ambient growth from Existing conditions of 12.62% (2 percent per year compounded over 6 years) is included for EAPC (2024) traffic conditions. Cumulative development projects are also included as part of the EAPC analysis. The weekday ADT and weekday AM and PM peak hour volumes which can be expected for EAPC (2020), EAPC (2021), and EAPC (2024) traffic conditions are shown on

Exhibits 9-1, 9-2, and 9-3, respectively, of the Project's TIA (*Technical Appendix L*). (Urban Crossroads, 2018c, p. 157)

Starting with Phase 1 (2020), the Project would provide a connection between Nichols Road and El Toro Road via B Street. As such, it is unlikely that existing through traffic would continue to utilize El Toro Road to access Nichols Road once B Street provides access to Nichols Road. As such, the existing volumes at El Toro Road at Nichols Road and El Toro Road/Wood Mesa Court at El Toro Road would be reallocated to reflect the use of B Street starting in Phase 1 (2020). It is anticipated that 50% of the existing traffic would be reallocated to utilize B Street. (Urban Crossroads, 2018c, p. 157)

### *3. Intersection Operations Analysis – EAPC Conditions*

LOS calculations were conducted for the study intersections to evaluate their operations under EAPC conditions with roadway and intersection geometrics consistent with those described above. The intersection analysis results are summarized in Table 4.16-30, *Intersection Analysis for EAPC Conditions*.

#### ❑ EAPC (2020) Intersection Operations Analysis

As shown in Table 4.16-30, the following intersections were previously shown to operate at an acceptable LOS under both EA (2020) and EAP (2020) conditions (refer to Table 4.16-18); thus, impacts to the following intersections are the result of cumulative development traffic. Accordingly, Project impacts to the following intersections would be cumulatively considerable under EAPC (2020) conditions: (Urban Crossroads, 2018c, p. 161)

- Lake Street & Nichols Road (#1) – LOS F PM peak hour only
- Collier Avenue & Nichols Road (#6) – LOS F PM peak hour only
- El Toro Road & Tereticornis Avenue (#17) – LOS D AM peak hour only (with normalized PHF)
- Dexter Avenue & Central Avenue (SR-74) (#19) – LOS E PM peak hour only

As previously shown in Table 4.16-18, the following intersections were shown to operate at a deficient LOS under EA (2020) conditions; thus, because the Project would contribute to but would not directly cause the following LOS deficiencies, Project impacts at the following intersections would be cumulatively considerable under EAPC (2020) conditions: (Urban Crossroads, 2018c, p. 161)

- Gunnerson Street/Strickland Avenue (#5) – LOS F AM and PM peak hours
- I-15 Northbound Ramps & Nichols Road (#10) – LOS F AM and PM peak hours
- El Toro Road & Carmela Court (#18) – LOS E PM peak hour only (with normalized PHF)

A summary of the peak hour intersection LOS for EAPC (2020) traffic conditions are shown on Exhibit 9-4 of the Project's TIA (*Technical Appendix L*). The intersection operations analysis worksheets for EAPC (2020) traffic conditions are included in Appendix 9.1 of the TIA. (Urban Crossroads, 2018c, p. 161)

## Table 4.16-30 Intersection Analysis for EAPC Conditions

| # | Intersection | Traffic Control[2] | EAPC (2020) Delay[1] (secs.) AM | EAPC (2020) Delay[1] (secs.) PM | EAPC (2020) LOS[3] AM | EAPC (2020) LOS[3] PM | EAPC (2021) Delay[1] (secs.) AM | EAPC (2021) Delay[1] (secs.) PM | EAPC (2021) LOS[3] AM | EAPC (2021) LOS[3] PM | EAPC (2024) Delay[1] (secs.) AM | EAPC (2024) Delay[1] (secs.) PM | EAPC (2024) LOS[3] AM | EAPC (2024) LOS[3] PM |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | Lake St. & Nichols Rd. | TS | 24.2 | **126.0** | C | **F** | 31.7 | **180.5** | C | **F** | **81.6** | **>200.0** | **F** | **F** |
| 2 | Lake St. & Alberhill Ranch Rd. | TS | 15.1 | 8.7 | B | A | 17.6 | 9.7 | B | A | 41.7 | 18.9 | D | B |
| 3 | Alberhill Ranch Rd. & Nichols Rd. | AWS | 16.0 | 13.0 | C | B | 21.2 | 16.7 | C | C | **>100.0** | **83.0** | **F** | **F** |
| 4 | Lakeshore Dr. & Riverside Dr. (SR-74) | TS | 49.7 | 47.9 | D | D | 53.1 | 51.8 | D | D | **67.0** | **66.9** | **E** | **E** |
| 5 | Gunnerson St./Strickland Av. & Riverside Dr. (SR-74) | CSS | **>100.0** | **>100.0** | **F** | **F** | **>100.0** | **>100.0** | **F** | **F** | **>100.0** | **>100.0** | **F** | **F** |
| | *Current Intersection Lanes[4]* | *CSS* | ***>100.0*** | ***>100.0*** | ***F*** | ***F*** | ***>100.0*** | ***>100.0*** | ***F*** | ***F*** | ***>100.0*** | ***>100.0*** | ***F*** | ***F*** |
| 6 | Collier Av. & Nichols Rd. | CSS | 29.7 | **74.7** | D | **F** | **41.1** | **>100.0** | **E** | **F** | **>100.0** | **>100.0** | **F** | **F** |
| 7 | Collier Av. & Riverside Dr. (SR-74) | TS | 16.2 | 29.6 | B | C | 17.4 | 34.1 | B | C | 23.4 | **59.9** | C | **E** |
| 8 | Collier Av. & Central Av. (SR-74) | TS | 34.6 | 33.5 | C | C | 34.7 | 33.9 | C | C | 35.7 | 37.6 | D | D |
| 9 | I-15 Southbound Ramps & Nichols Rd. | AWS | 21.4 | 20.4 | C | C | 30.6 | 34.7 | D | D | **>100.0** | **>100.0** | **F** | **F** |
| 10 | I-15 Northbound Ramps & Nichols Rd. | CSS | **>100.0** | **>100.0** | **F** | **F** | **>100.0** | **>100.0** | **F** | **F** | **>100.0** | **>100.0** | **F** | **F** |
| | *Current Intersection Control[5]* | *AWS* | ***51.1*** | *13.9* | ***F*** | *B* | ***85.4*** | *18.3* | ***F*** | *C* | ***>100.0*** | ***72.3*** | ***F*** | ***F*** |
| 11 | A St. & Nichols Rd. | CSS/TS[6] | Future Intersection | | | | 16.7 | 12.4 | C | B | 16.6 | 13.1 | B | B |
| 12 | B St. & Nichols Rd. | CSS | 14.1 | 10.9 | B | B | 15.5 | 11.4 | C | B | 16.7 | 11.7 | C | B |
| 13 | B St. & F St. | CSS | Future Intersection | | | | 11.7 | 10.3 | B | B | 11.8 | 10.2 | B | B |
| 14 | B St. & H St. | CSS | Future Intersection | | | | 0.0 | 0.0 | A | A | 10.0 | 9.1 | B | A |
| 15 | K St. & B St. | CSS | 9.2 | 8.9 | A | A | 10.0 | 9.3 | B | A | 10.8 | 9.8 | B | A |
| 16 | El Toro Rd. & B St. | CSS | 11.5 | 9.4 | B | A | 11.8 | 9.4 | B | A | 13.0 | 9.8 | B | A |
| 17 | El Toro Rd. & Tereticornis Av. | CSS | **>100.0** | 10.4 | **F** | B | **>100.0** | 10.6 | **F** | B | **>100.0** | 11.2 | **F** | B |
| | *With Normalized PHF[7,8]* | CSS | **25.0** | -- | **D** | -- | **27.3** | -- | **D** | -- | **52.5** | -- | **F** | -- |
| 18 | El Toro Rd. & Carmela Ct. | CSS | **>100.0** | 11.7 | **F** | B | **>100.0** | 12.1 | **F** | B | **>100.0** | 13.5 | **F** | B |
| | *With Normalized PHF[7,8]* | CSS | **>100.0** | -- | **F** | -- | **>100.0** | -- | **F** | -- | **>100.0** | -- | **F** | -- |
| 19 | Dexter Av. & Central Av. (SR-74) | TS | 44.5 | **59.8** | D | **E** | 49.8 | **70.1** | D | **E** | **76.7** | **118.7** | **E** | **F** |
| 20 | Cambern Av. & Central Av. (SR-74) | TS | 32.8 | 37.2 | C | D | 38.8 | 44.5 | D | D | **68.1** | **77.4** | **E** | **E** |
| 21 | Driveway 1 & Nichols Rd. | CSS | Future Intersection | | | | Future Intersection | | | | 13.1 | 10.5 | B | B |

* **BOLD** = LOS does not meet the applicable jurisdictional requirements (i.e., unacceptable LOS).

[1] Per the Highway Capacity Manual (6th Edition), overall average intersection delay and level of service are shown for intersections with a traffic signal or all way stop control. For intersections with cross-street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown.

[2] CSS = Cross-street Stop; AWS = All-way Stop; TS = Traffic Signal; CSS = Improvement

[3] LOS = Level of Service

[4] At the time field review was conducted, the eastbound and westbound left turn lanes were under construction. However, these lanes have since been completed. This analysis identifies the LOS results with the current left turn lanes in place.

[5] Although at the time of the field review and traffic counts this intersection was operating as a cross-street stop controlled intersection, it is our understanding that the I-15 Northbound Ramps currently operates as an all-way stop.

[6] For buildout conditions, the intersection is evaluated with a traffic signal, an eastbound right-turn pocket and striping the northbound approach to a left turn and right turn lane.

[7] The two intersections of Tereticornis Avenue and Carmela Court are in close proximity to the existing Temescal Canyon High School on El Toro Road and have been evaluated with the AM existing peak hour factor from the raw count worksheet and also with a normalized peak hour factor of 0.92. Lower peak hour factors during the AM peak hour (morning drop-off) occur near schools due to the peak 10-15 minute traffic flows during the AM peak hour, which are much higher in comparison to the other 15-minute periods within the hour.

[8] PHF = Peak Hour Factor

(Urban Crossroads, 2018c, Table 9-1)

### ❑ EAPC (2021) Intersection Operations Analysis

As shown in Table 4.16-30, there are no additional intersections are anticipated to operate at unacceptable LOS for EAPC (2021) traffic conditions, in addition to those previously identified under EAPC (2020) traffic conditions. Thus, consistent with the analysis presented above for EAPC (2020) conditions, the Project would contribute to, but would not directly cause, a deficient LOS at the following locations; thus, Project impacts to the following locations would represent cumulatively-considerable impacts of the proposed Project under EAPC (2021) conditions:

- Lake Street & Nichols Road (#1) – LOS F PM peak hour only
- Gunnerson Street/Strickland Avenue (#5) – LOS F AM and PM peak hours

- Collier Avenue & Nichols Road (#6) – LOS F PM peak hour only
- I-15 Northbound Ramps & Nichols Road (#10) – LOS F AM and PM peak hours
- El Toro Road & Tereticornis Avenue (#17) – LOS D AM peak hour only (with normalized PHF)
- El Toro Road & Carmela Court (#18) – LOS E PM peak hour only (with normalized PHF)
- Dexter Avenue & Central Avenue (SR-74) (#19) – LOS E PM peak hour only

A summary of the peak hour intersection LOS for EAPC (2021) traffic conditions are shown on Exhibit 9-5 of the Project's TIA (*Technical Appendix L*). The intersection operations analysis worksheets for EAPC (2021) traffic conditions are included in Appendix 9.2 of the TIA. (Urban Crossroads, 2018c, p. 161)

### ❑ EAPC (2024) Intersection Operations Analysis

As shown in Table 4.16-30, the following intersection would operate at a deficient LOS with the addition of Project traffic under EAPC (2024) conditions. This intersection operates at an acceptable LOS under EA (2024) and was previously shown to be impacted with the addition of Project traffic under EAP (2024) conditions; thus, the deficient LOS is a direct result of Project traffic. Accordingly, the Project would result in a direct impact to the following intersection under EAPC (2024) conditions:

- I-15 Southbound Ramps & Nichols Road (#9) – LOS F AM and PM peak hours

As shown in Table 4.16-30, the following intersections would operate at a deficient LOS under EAPC (2024) conditions. As previously shown in Table 4.16-26, the following intersections were shown to operate at an acceptable LOS under EA (2024) and EAP (2024) conditions. Thus, the projected LOS deficiencies at the following intersections are the result of cumulative development traffic. Because the Project would contribute to but would not direct cause the LOS deficiencies, Project impacts at the following intersections would be cumulatively considerable under EAPC (2024) conditions:

- Alberhill Ranch Road & Nichols Road (#3) – LOS F AM and PM peak hours
- Collier Avenue & Riverside Drive (SR-74) (#7) – LOS E PM peak hour only
- Cambern Avenue & Central Avenue (SR-74) (#20) – LOS E AM and PM peak hours

As shown previously in Table 4.16-26, the following intersection would operate at a deficient LOS under EA (2024) conditions. Thus, because the Project would contribute to, but would not directly cause the projected deficiency, Project impacts to the following intersection would be cumulatively considerable under EAPC (2024) conditions:

- Lakeshore Drive & Riverside Drive (SR-74) (#4) – LOS E AM and PM peak hours

Additionally, and consistent with EAPC (2020) and EAPC (2021) conditions, the Project would contribute to, but would not directly cause, the projected LOS deficiencies at the following locations; thus, Project impacts to the following intersections would be cumulatively considerable under EAPC (2024) conditions:

- Lake Street & Nichols Road (#1) – LOS F PM peak hour only

- Gunnerson Street/Strickland Avenue (#5) – LOS F AM and PM peak hours
- Collier Avenue & Nichols Road (#6) – LOS F PM peak hour only
- I-15 Northbound Ramps & Nichols Road (#10) – LOS F AM and PM peak hours
- El Toro Road & Tereticornis Avenue (#17) – LOS D AM peak hour only (with normalized PHF)
- El Toro Road & Carmela Court (#18) – LOS E PM peak hour only (with normalized PHF)
- Dexter Avenue & Central Avenue (SR-74) (#19) – LOS E PM peak hour only

A summary of the peak hour intersection LOS for EAPC (2024) traffic conditions are shown on Exhibit 9-6 of the Project's TIA (*Technical Appendix L*). The intersection operations analysis worksheets for EAPC (2024) traffic conditions are included in Appendix 9.3 of the TIA. (Urban Crossroads, 2018c, p. 161)

### *4. Traffic Signal Warrants Analysis – EAPC Conditions*

The intersection of Alberhill Ranch Road and Nichols Road (#3) is anticipated to meet the traffic signal warrant under EAPC (2021) traffic conditions, in addition to those intersections previously warranted under Existing (2018), E+P, and EAP traffic conditions (see Appendices 9.4, 9.5, and 9.6, respectively, of the Project's TIA [*Technical Appendix L*]). However, as shown in Table 4.16-30 LOS C during both peak hours under EAPC (2021) conditions; thus, Project impacts due to the need to signalize the intersection of Alberhill Ranch Road and Nichols Road (#3) would be less than significant under EAPC (2021) conditions. However, under EAPC (2024) conditions, the LOS would be LOS F during both peak hours; thus, because the need for signalization is the result of cumulative development traffic, impacts due to the need to signalize the intersection of Alberhill Ranch Road and Nichols Road (#3) would be cumulatively considerable under EAPC (2024) conditions. (Urban Crossroads, 2018c, p. 161)

Consistent with EAP conditions, the Project would contribute to the need for signalization at the following intersections, but would not directly cause the need; thus, Project impacts due to the need to signalize the following intersections would be cumulatively considerable under EAPC (2020), EAPC (2021), and/or EAPC (2024) conditions as follows:

- Collier Avenue & Nichols Road (#6) – EAPC (2021) and EAPC (2024)
- I-15 Southbound Ramps & Nichols Road (#9) – EAPC (2024) only
- I-15 Northbound Ramps & Nichols Road (#10) – EAPC (2020), EAPC (2021), and EAPC (2024)
- El Toro Road & Carmela Court (#18) – EAPC (2020), EAPC (2021), and EAPC (2024)

### *5. Off-Ramp Queuing Analysis – EAPC Conditions*

A queuing analysis was performed for the off-ramps at the I-15 Freeway and Nichols Road interchange to assess vehicle queues for the off ramps that may potentially result in deficient peak hour operations at the ramp-to-arterial intersections and may potentially "spill back" onto the I-15 Freeway mainline. Queuing analysis findings are presented in Table 4.16-31, *Peak Hour Freeway Off-Ramp Queuing Summary for EAPC Conditions*, for EAPC traffic conditions. It is important to note that off-ramp lengths are consistent with the measured distance between the intersection and the freeway mainline. As shown on Table 4.16-31, there are no movements anticipated to experience queuing issues for EAPC (2020) and EAPC (2021) traffic conditions.

### Table 4.16-31 Peak Hour Freeway Off-Ramp Queuing Summary for EAPC Conditions

| Intersection | Movement | Available Stacking Distance (Feet) | EAPC (2020) 95th Percentile Queue (Feet) | | EAPC (2020) Acceptable?[1] | | EAPC (2021) 95th Percentile Queue (Feet) | | EAPC (2021) Acceptable?[1] | | EAPC (2024) 95th Percentile Queue (Feet) | | EAPC (2024) Acceptable?[1] | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | AM Peak Hour | PM Peak Hour | AM | PM | AM Peak Hour | PM Peak Hour | AM | PM | AM Peak Hour | PM Peak Hour | AM | PM |
| I-15 SB Off-Ramp & Nichols Rd. | SBL/T/R | 1,600 | 523 | 73 | Yes | Yes | 643 | 538 | Yes | Yes | **1,743** | 235 | **No** | Yes |
| I-15 NB Off-Ramp & Nichols Rd. | NBL/T/R | 1,530 | 878 | 358 | Yes | Yes | 1,163 | 658 | Yes | Yes | **2,178** | 1,588 | **No** | No |

[1] Stacking Distance is acceptable if the required stacking distance is less than or equal to the stacking distance provided

(Urban Crossroads, 2018c, Table 9-2)

The following movements are anticipated to experience queuing issues during the weekday AM or weekday PM peak 95th percentile traffic flows for EAPC (2024) traffic conditions:

- I-15 Freeway Southbound Off-ramp at Nichols Road (#1): Shared southbound left-through-right turn lane during the AM peak hour only
- I-15 Freeway Northbound Off-ramp at Nichols Road (#2): Shared northbound left-through-right turn lane during the AM peak hour only

As previously shown in Table 4.16-27, the I-15 Freeway Southbound Off-ramp at Nichols Road (#1) would not experience queuing issues under EA (2024) or EAP (2024) conditions; thus, the queuing issues are due to cumulative development traffic and Project impacts to this queuing location would be cumulatively considerable under EAPC (2024) conditions. The queuing issues anticipated at the I-15 Freeway Northbound Off-ramp at Nichols Road (#2) would occur as a result of Project traffic; thus, the Project would result in direct impacts to this queuing location under EAPC (2024) conditions.

Worksheets for EAPC (2020), EAPC (2021), and EAPC (2024) conditions off-ramp queuing analysis are provided in Appendices 9.7, 9.8, and 9.9, respectively, of the Project's TIA (*Technical Appendix L*). (Urban Crossroads, 2018c, p. 166)

#### *6. Basic Freeway Segment Analysis – EAPC Conditions*

EAPC (2020), EAPC (2021), and EAPC (2024) mainline directional volumes for the weekday AM and PM peak hours are provided on Exhibits 9-5 and 9-6, respectively, of the Project's TIA (*Technical Appendix L*). As shown on Table 4.16-32, *Basic Freeway Segment Analysis for EAPC Conditions*, the following basic freeway segments are anticipated to operate at an unacceptable LOS for EAPC (2020) traffic conditions:

- I-15 Freeway Southbound, North of Nichols Road (#1) – LOS E PM peak hour only
- I-15 Freeway Southbound, South of Nichols Road (#2) – LOS E PM peak hour only

Consistent with the conclusion reached for EAP (2024) conditions, the Project would contribute traffic to the above-listed facilities, but would not directly cause the projected deficiencies; thus, Project impacts to the above-listed freeway segments would be cumulatively considerable under EAPC (2024) conditions.

**Table 4.16-32 Basic Freeway Segment Analysis for EAPC Conditions**

| Freeway | Direction | Mainline Segment | Lanes[1] | EAPC (2020) | | | | EAPC (2021) | | | | EAPC (2024) | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Density[2] | | LOS[3] | | Density[2] | | LOS[3] | | Density[2] | | LOS[3] | |
| | | | | AM | PM | AM | PM | AM | PM | AM | PM | AM | PM | AM | PM |
| I-15 Freeway | Southbound | North of Nichols Rd. | 3 | 28.3 | **35.1** | D | E | 29.3 | **36.9** | D | E | 32.9 | **42.8** | D | E |
| | | South of Nichols Rd. | 3 | 29.6 | **36.2** | D | E | 30.9 | **38.0** | D | E | **35.2** | **44.6** | E | E |
| | Northbound | North of Nichols Rd. | 3 | 23.2 | 17.6 | C | B | 24.1 | 18.1 | C | C | 26.6 | 19.8 | D | C |
| | | South of Nichols Rd. | 3 | 23.7 | 18.2 | C | C | 24.5 | 18.9 | C | C | 27.2 | 21.0 | D | C |

[1] Number of lanes are in the specified direction and is based on existing conditions.

[2] Density is measured by passenger cars per mile per lane (pc/mi/ln).

[3] LOS = Level of Service

(Urban Crossroads, 2018c, Table 9-3)

EAPC (2020), EAPC (2021), and EAPC (2024) basic freeway segment analysis worksheets are provided in Appendices 9.10, 9.11, and 9.12, respectively, of the Project's TIA.

### *7. Freeway Merge/Diverge Analysis – EAPC Conditions*

Ramp merge and diverge operations were also evaluated for EAPC conditions and the results of this analysis are presented in Table 4.16-33, *Freeway Ramp Junction Merge/Diverge Analysis for EAPC Conditions*. As shown in Table 4.16-33, the following ramp merge/diverge segment is anticipated to operate at an unacceptable LOS during one or more peak hours under EAPC (2020) traffic conditions: (Urban Crossroads, 2018c, p. 166)

- I-15 Freeway Southbound, Off-Ramp at Nichols Road (#1) – LOS E PM peak hour only

The above-listed merge/diverge location was previously shown to operate at a deficient LOS under EA (2020) conditions (refer to Table 4.16-21); thus, Project impacts to the above-listed merge/diverge location would be cumulatively considerable under EAPC (2020), EAPC (2021), and EAPC (2024) conditions.

The following merge/diverge location was shown to operate at an acceptable LOS under EAP (2024) conditions; thus, the deficient LOS under EAPC (2024) conditions is the result of cumulative development traffic. Accordingly, Project impacts to the following merge/diverge location would be cumulatively considerable under EAPC (2024) conditions:

- I-15 Freeway Southbound, On-Ramp at Nichols Road (#2) – LOS E PM peak hour only

There are no additional ramp merge/diverge segments anticipated to operate at an unacceptable LOS during one or more peak hours under EAPC (2021) and EAPC (2024) traffic conditions.

**Table 4.16-33 Freeway Ramp Junction Merge/Diverge Analysis for EAPC Conditions**

| Freeway | Direction | Ramp or Segment | Lanes on Freeway[1] | EAPC (2020) | | | | EAPC (2021) | | | | EAPC (2024) | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | AM Peak Hour | | PM Peak Hour | | AM Peak Hour | | PM Peak Hour | | AM Peak Hour | | PM Peak Hour | |
| | | | | Density[2] | LOS[3] | Density[2] | LOS[3] | Density[2] | LOS[3] | Density[2] | LOS[3] | Density[2] | LOS[3] | Density[2] | LOS[3] |
| I-15 Freeway | Southbound | Off-Ramp at Nichols Rd. | 3 | 28.5 | D | **32.8** | **E** | 29.2 | D | **33.9** | **E** | 31.7 | D | **36.8** | **E** |
| | | On-Ramp at Nichols Rd. | 3 | 31.4 | D | 36.6 | D | 32.6 | D | 38.0 | D | 36.2 | D | **42.9** | **E** |
| | Northbound | On-Ramp at Nichols Rd. | 3 | 25.4 | C | 19.5 | B | 26.3 | C | 20.1 | B | 28.6 | C | 21.7 | C |
| | | Off-Ramp at Nichols Rd. | 3 | 24.9 | D | 19.7 | C | 25.5 | D | 20.4 | C | 27.9 | D | 22.7 | C |

[1] Number of lanes are in the specified direction and is based on existing conditions.
[2] Density is measured by passenger cars per mile per lane (pc/mi/ln).
[3] LOS = Level of Service
(Urban Crossroads, 2018c, Table 9-4)

EAPC (2020), EAPC (2021), and EAPC (2024) freeway ramp junction operations analysis worksheets are provided in Appendices 9.13, 9.14, and 9.15, respectively, of the Project's TIA (*Technical Appendix L*). (Urban Crossroads, 2018c, p. 173)

### *H. Project Impacts due to a Conflict with Policies Related to Transit, Roadway, and Pedestrian Facilities*

As described in subsection 4.16.3, although the Project area is served by the RTA, there are currently no existing bus routes that serve the Project site (see TIA Exhibit 3-8, included as EIR *Technical Appendix L*). The closest transit lines run along the I-15 Freeway, Nichols Road to the west of the I-15 Freeway, Collier Avenue, Riverside Avenue (SR-74), and Central Avenue (SR-74). The proposed Project does not include any components that would impede operation of bus service and would therefore not decrease the performance or safety of such facilities.

There are currently no trails on the Project site and no designated bicycle lanes occur along Nichols Road or Wood Mesa Court adjacent to the Project site. Figure 2.5 of the Lake Elsinore General Plan designates a Class II bike lane along Nichols Road. The Project would implement a Class II bike lane along the southern edge of Nichols Road along the Project's frontage, while the Class II bike lane along the northern edge of the roadway would be constructed in the future by others. Accordingly, the Project would not conflict with Figure 2.5 of the General Plan, and impacts would be less than significant.

Figure 2.6 of the Lake Elsinore General Plan designates a Regional Trail along Nichols Road, with a County Regional Trail shown in the southern portions of the Project site. The Project would provide on-site trails in a general alignment consistent with that shown on Figure 2.6 of the General Plan. Although the Project would not construct the Regional Trail segment along Nichols Road, it is anticipated that this Regional Trail segment would occur along the northern edge of the roadway and would be constructed in the future by others. Accordingly, the Project would not conflict with General Plan Figure 2.6.

The proposed Project is designed to encourage pedestrian movement and enhance connectivity within the Project site through the incorporation of trails and sidewalk connections throughout the Project site. Furthermore, the City of Lake Elsinore Planning Division conducted a review of the proposed Project, and determined that the Project would comply with, or otherwise would not conflict with, policies, plans, or programs regarding public transit, bikeways, or pedestrian facilities. Additionally, the Project has no potential to otherwise decrease the performance or safety of public transit, bikeways, or pedestrian facilities. As such, impacts would be less than significant and no mitigation is required.

***Threshold b.*** ***Would the Project exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?***

The Riverside County CMP is applicable to the proposed Project because the Project would contribute traffic to CMP-designated facilities. CMP facilities within the Project's study area include intersections with I-15 and SR-74; I-15 freeway mainlines; I-15 off-ramp queuing locations; and I-15 merge/diverge locations. Project impacts to CMP facilities were fully evaluated under the analysis of Threshold a., above, and are summarized below.

### ❑ EAP (2020) Conditions

Under EAP (2020) conditions, the Project would result in a cumulatively-considerable impact at the following CMP intersections:

- Gunnerson Street/Strickland Avenue & Riverside Drive (#5) – LOS F AM and PM peak hours
- I-15 Northbound Ramps & Nichols Road (#10) – LOS F AM peak hour only

The Project also would result in a cumulatively-considerable impact at the following CMP facility due to the need for signalization of the intersection under EAP (2020) conditions:

- I-15 Northbound Ramps & Nichols Road (#10)

The Project would not result in any direct or cumulatively-considerable impacts due to off-ramp queuing deficiencies under EAP (2020) conditions

The Project would result in a cumulatively-considerable impact to the following freeway segment under EAP (2020) conditions:

- I-15 Freeway Southbound, South of Nichols Road (#2) – LOS E PM peak hour only

The Project also would result in cumulatively-considerable impacts due to a deficient LOS at the following freeway merge/diverge location under EAP (2020) conditions:

- I-15 Freeway Southbound, Off-Ramp at Nichols Road (#1) – LOS E PM peak hour only

### ❑ EAP (2021) Conditions

The addition of Project traffic to the following CMP intersections would represent cumulatively-considerable impacts under EAP 2021 conditions:

- Gunnerson Street/Strickland Avenue & Riverside Drive (#5) – LOS F AM and PM peak hours
- I-15 Northbound Ramps & Nichols Road (#10) – LOS F AM and PM peak hours

The Project also would result in a cumulatively-considerable impact at the following CMP facility due to the need for signalization of the intersection under EAP (2021) conditions:

- I-15 Northbound Ramps & Nichols Road (#10)

The Project would not result in any direct or cumulatively-considerable impacts due to off-ramp queuing deficiencies under EAP (2021) conditions

The Project would result in a cumulatively-considerable impact to the following freeway segments under EAP (2021) conditions:

- I-15 Freeway Southbound, North of Nichols Road (#1) – LOS E PM peak hour only
- I-15 Freeway Southbound, South of Nichols Road (#2) – LOS E PM peak hour only

The Project also would result in cumulatively-considerable impacts due to a deficient LOS at the following freeway merge/diverge location under EAP (2021) conditions:

- I-15 Freeway Southbound, Off-Ramp at Nichols Road (#1) – LOS E PM peak hour only

### ❑ EAP (2024) Conditions

The addition of Project traffic to the following CMP intersection would represent a direct impact under EAP 2024 conditions:

- I-15 Southbound Ramps & Nichols Road (#9) – LOS F AM peak hour, LOS E PM peak hour

The addition of Project traffic to the following CMP intersections would represent cumulatively-considerable impacts under EAP 2024 conditions:

- Lakeshore Drive & Riverside Drive (SR-74) (#4) – LOS E AM peak hour only
- Gunnerson Street/Strickland Avenue & Riverside Drive (#5) – LOS F AM and PM peak hours
- I-15 Northbound Ramps & Nichols Road (#10) – LOS F AM and PM peak hours

The Project also would result in a cumulatively-considerable impact at the following CMP facilities due to the need for signalization of the intersections under EAP (2024) conditions:

- I-15 Southbound Ramps & Nichols Road (#9)
- I-15 Northbound Ramps & Nichols Road (#10)

The Project would result in a direct impact due to off-ramp queuing deficiencies under EAP (2024) conditions at the following location:

- I-15 Northbound off-ramp at Nichols Road (#2)

The Project would result in a cumulatively-considerable impact to the following freeway segments under EAP (2024) conditions:

- I-15 Freeway Southbound, North of Nichols Road (#1) – LOS E PM peak hour only
- I-15 Freeway Southbound, South of Nichols Road (#2) – LOS E PM peak hour only

The Project also would result in cumulatively-considerable impacts due to a deficient LOS at the following freeway merge/diverge location under EAP (2024) conditions:

- I-15 Freeway Southbound, Off-Ramp at Nichols Road (#1) – LOS E PM peak hour only

### ❑ EAPC (2020) Conditions

The addition of Project traffic to the following CMP intersections would represent cumulatively-considerable impacts under EAPC 2020 conditions:

- Gunnerson Street/Strickland Avenue (#5) – LOS F AM and PM peak hours
- I-15 Northbound Ramps & Nichols Road (#10) – LOS F AM and PM peak hours
- Dexter Avenue & Central Avenue (SR-74) (#19) – LOS E PM peak hour only

The Project also would result in a cumulatively-considerable impact at the following CMP facility due to the need for signalization of the following intersection under EAPC (2020) conditions:

- I-15 Northbound Ramps & Nichols Road (#10)

The Project would not result in any direct or cumulatively-considerable impacts due to off-ramp queuing deficiencies under EAPC (2020) conditions

The Project would result in a cumulatively-considerable impact to the following freeway segments under EAPC (2020) conditions:

- I-15 Freeway Southbound, North of Nichols Road (#1) – LOS E PM peak hour only
- I-15 Freeway Southbound, South of Nichols Road (#2) – LOS E PM peak hour only

The Project also would result in cumulatively-considerable impacts due to a deficient LOS at the following freeway merge/diverge location under EAPC (2020) conditions:

- I-15 Freeway Southbound, Off-Ramp at Nichols Road (#1) – LOS E PM peak hour only

### ❑ EAPC (2021) Conditions

The addition of Project traffic to the following CMP intersections would represent cumulatively-considerable impacts under EAPC 2021 conditions:

- Gunnerson Street/Strickland Avenue (#5) – LOS F AM and PM peak hours
- I-15 Northbound Ramps & Nichols Road (#10) – LOS F AM and PM peak hours
- Dexter Avenue & Central Avenue (SR-74) (#19) – LOS E PM peak hour only

The Project also would result in a cumulatively-considerable impact at the following CMP facility due to the need for signalization of the following intersection under EAPC (2021) conditions:

- I-15 Northbound Ramps & Nichols Road (#10)

The Project would not result in any direct or cumulatively-considerable impacts due to off-ramp queuing deficiencies under EAPC (2021) conditions.

The Project would result in a cumulatively-considerable impact to the following freeway segments under EAPC (2021) conditions:

- I-15 Freeway Southbound, North of Nichols Road (#1) – LOS E PM peak hour only
- I-15 Freeway Southbound, South of Nichols Road (#2) – LOS E PM peak hour only

The Project also would result in cumulatively-considerable impacts due to a deficient LOS at the following freeway merge/diverge location under EAPC (2021) conditions:

- I-15 Freeway Southbound, Off-Ramp at Nichols Road (#1) – LOS E PM peak hour only

### ❑ EAPC (2024) Conditions

The addition of Project traffic to the following CMP intersection would represent a direct impact under EAPC 2024 conditions:

- I-15 Southbound Ramps & Nichols Road (#9) – LOS F AM and PM peak hours

The addition of Project traffic to the following CMP intersections would represent cumulatively-considerable impacts under EAPC 2024 conditions:

- Lakeshore Drive & Riverside Drive (SR-74) (#4) – LOS E AM and PM peak hours

- Gunnerson Street/Strickland Avenue (#5) – LOS F AM and PM peak hours
- Collier Avenue & Riverside Drive (SR-74) (#7) – LOS E PM peak hour only
- I-15 Northbound Ramps & Nichols Road (#10) – LOS F AM and PM peak hours
- Dexter Avenue & Central Avenue (SR-74) (#19) – LOS E PM peak hour only
- Cambern Avenue & Central Avenue (SR-74) (#20) – LOS E AM and PM peak hours

The Project also would result in a cumulatively-considerable impact at the following CMP facilities due to the need for signalization of the following intersections under EAPC (2024) conditions:

- I-15 Southbound Ramps & Nichols Road (#9)
- I-15 Northbound Ramps & Nichols Road (#10)

The Project would result in a direct impact due to off-ramp queuing deficiencies under EAP (2024) conditions at the following location:

- I-15 Freeway Northbound Off-ramp at Nichols Road (#2)

The Project also would result in cumulatively-considerable impacts due to off-ramp queuing deficiencies under EAP (2024) conditions at the following locations:

- I-15 Freeway Southbound Off-ramp at Nichols Road (#1): Shared southbound left-through-right turn lane during the AM peak hour only

The Project would result in a cumulatively-considerable impact to the following freeway segments under EAPC (2024) conditions:

- I-15 Freeway Southbound, North of Nichols Road (#1) – LOS E PM peak hour only
- I-15 Freeway Southbound, South of Nichols Road (#2) – LOS E during both peak hours

The Project also would result in cumulatively-considerable impacts due to a deficient LOS at the following freeway merge/diverge locations under EAPC (2020) conditions:

- I-15 Freeway Southbound, Off-Ramp at Nichols Road (#1) – LOS E PM peak hour only
- I-15 Freeway Southbound, On-Ramp at Nichols Road (#2) – LOS E PM peak hour only

***Threshold c. Would the Project substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?***

The Project proposes a network of internal roadways that would be constructed within the Project site. During the City's review process for the Project's proposed Specific Plan and Tentative Tract Map, the City of Lake Elsinore reviewed the proposed design plans to ensure that no hazardous roadway features would be implemented. On the contrary, the Project would provide a new point of connection between Nichols Road and the north-south aligned segment of El Toro Road, which would reduce traffic along the existing east-west

oriented segment of El Toro Road and would provide for a more efficient and safe connection between Nichols Road and El Toro Road. The proposed Project would not include any components that would result in incompatible uses on roadways, including heavy equipment, etc. Accordingly, the proposed Project would not create or substantially increase safety hazards due to a geometric design feature or incompatible use. Impacts associated with this issue would be less than significant.

***Threshold d. Would the Project result in inadequate emergency access?***

The Project proposes a network of internal roadways that would be constructed within the Project site to City standards. During the City's review of the Project's proposed Specific Plan and Tentative Tract Map, the City reviewed the proposed design plans to ensure that adequate emergency access would be available at the site. Furthermore, the proposed connection between Nichols Road and El Toro Road via proposed B Street would improve emergency access in the local area by providing a more direct connection between Nichols Road and El Toro Road, thereby improving access to the Temescal Canyon High School. Accordingly, the proposed Project would not result in inadequate emergency access during long-term operation of the Project and impacts would be less than significant.

Due to temporary lane closures that may occur during the Project's construction phase, Project-related construction activities may conflict with emergency access routes and access to nearby uses during frontage improvements to Nichols Road and the proposed connection to El Toro Road via B Street. Project-related construction traffic would be required to comply with a temporary traffic control plan that meets the applicable requirements of the California Manual on Uniform Traffic Control Devices. Although it is anticipated a less-than-significant impact would occur with the requirement to implement a temporary traffic control plan during construction, out of an abundance of caution, a significant impact is identified. Accordingly, near-term impacts to emergency access would be significant prior to mitigation.

## 4.16.8 CUMULATIVE IMPACT ANALYSIS

Cumulative impacts associated with transportation and traffic were evaluated in the preceding subsection (subsection 4.16.7). A summary of the impacts identified therein is provided below. Direct impacts are identified in Subsection 4.15.7 and are not listed below. Additionally, impacts that were shown to be less than significant in subsection 4.16.7 are not discussed below.

### *A. Threshold a.*

Provided below is a summary of the cumulatively-considerable impacts that were identified for the proposed Project during each phase as part of the analysis presented in subsection 4.16.7.

#### *Intersection Operations Analysis – EAP 2020 Conditions*

The addition of Project traffic to the following intersections would represent cumulatively-considerable impacts under EAP 2020 conditions:

- Gunnerson Street/Strickland Avenue & Riverside Drive (#5) – LOS F AM and PM peak hours
- I-15 Northbound Ramps & Nichols Road (#10) – LOS F AM peak hour only

- El Toro Road & Carmela Court (#18) – LOS F AM peak hour only

### *Traffic Signal Warrants – EAP 2020 Conditions*

The following intersections meet traffic signal warrants for Existing (2018) traffic conditions; therefore, the addition of Project traffic to the following intersections represent cumulatively-considerable impacts of the proposed Project under EAP (2020) conditions:

- I-15 Northbound Ramps & Nichols Road (#10)
- El Toro Road & Carmela Court (#18)

### *Off-Ramp Queuing Analysis – EAP 2020 Conditions*

There are no movements that are anticipated to experience queuing issues during the weekday AM or weekday PM peak 95th percentile traffic flows for EAP (2020) traffic conditions; therefore, cumulatively-considerable impacts would not occur.

### *Basic Freeway Segment Analysis – EAP 2020 Conditions*

The following freeway segment was shown to operate at a deficient LOS under both EA and EAP (2020) traffic conditions; therefore, Project impacts to the following freeway segment would be cumulatively considerable under EAP 2020 conditions:

- I-15 Freeway Southbound, South of Nichols Road (#2) – LOS E PM peak hour only

### *Freeway Merge/Diverge Analysis – EAP 2020 Conditions*

The following freeway merge/diverge location would operate at a deficient LOS without the addition of Project traffic; thus, Project impacts to the following freeway merge/diverge location would be cumulatively considerable under EAP (2020) conditions:

- I-15 Freeway Southbound, Off-Ramp at Nichols Road (#1) – LOS E PM peak hour only

### *Intersection Operations Analysis – EAP 2021 Conditions*

The Project would contribute to, but would not directly cause, a deficient LOS at the following intersection; thus, Project impacts to the following intersection would be cumulatively considerable under EAP (2021) conditions.

- El Toro Road & Tereticornis Avenue (#17) – LOS D AM peak hour only (with normalized PHF)

As previously indicated, the following intersections were shown to operate at a deficient LOS for Existing (2018) conditions. Therefore, the addition of Project traffic to the following facilities would represent cumulatively-considerable impacts of Phase 2 (EAP 2021 conditions) of the proposed Project:

- Gunnerson Street/Strickland Avenue & Riverside Drive (#5) – LOS F AM and PM peak hours

- I-15 Northbound Ramps & Nichols Road (#10) – LOS F AM and PM peak hours
- El Toro Road & Carmela Court (#18) – LOS F AM peak hour only

### *Traffic Signal Warrants – EAP 2021 Conditions*

As previously indicated, the following intersections meet traffic signal warrants for Existing (2018) traffic conditions and would operate at a deficient LOS under EAP (2021) conditions; therefore, the addition of Project traffic to the following intersections represent cumulatively-considerable impacts of the proposed Project under EAP (2021) conditions:

- Collier Avenue & Nichols Road (#6)
- I-15 Northbound Ramps & Nichols Road (#10)
- El Toro Road & Carmela Court (#18)

### *Off-Ramp Queuing Analysis – EAP 2021 Conditions*

There are no movements that are anticipated to experience queuing issues during the weekday AM or weekday PM peak 95th percentile traffic flows for EAP (2021) traffic conditions; therefore, no impacts would occur.

### *Basic Freeway Segment Analysis – EAP 2021 Conditions*

The following freeway segment would operate at a deficient LOS under EA (2021) conditions; thus, the addition of Project traffic to the following freeway segment represents a cumulatively-considerable impact of the proposed Project:

- I-15 Freeway Southbound, North of Nichols Road (#1) – LOS E PM peak hour only

Additionally, and as previously noted, the following freeway segment was shown to operate at a deficient LOS under EA (2020) conditions; thus, the addition of Project traffic to the following freeway segment also represents a cumulatively-considerable impact of the proposed Project under EAP (2021) conditions:

- I-15 Freeway Southbound, South of Nichols Road (#2) – LOS E PM peak hour only

### *Freeway Merge/Diverge Analysis – EAP 2021 Conditions*

There are no additional ramp merge/diverge junction areas anticipated to operate at an unacceptable LOS during the peak hours for EA and EAP (2021) traffic conditions, in addition to the location previously identified under EA (2020) traffic conditions. As previously indicated, the following freeway merge/diverge analysis location would operate at a deficient LOS under EA (2020) conditions; thus, the addition of Project traffic to the following merge/diverge location represents a cumulatively-considerable impact under EAP (2021) conditions:

- I-15 Freeway Southbound, Off-Ramp at Nichols Road (#1) – LOS E PM peak hour only

### *Intersection Operations Analysis – EAP 2024 Conditions*

The Project would contribute to but would not directly cause the deficiency at the following intersection; thus, the Project's impacts to the following intersection would be cumulatively considerable under EAP (2024) conditions:

- Lakeshore Drive & Riverside Drive (SR-74) (#4) – LOS E AM peak hour only

The addition of Project traffic to the following intersections that were shown to be impacted under EA and/or EAP (2021) conditions also would represent cumulatively-considerable impacts of the proposed Project under EAP (2024) conditions:

- Gunnerson Street/Strickland Avenue & Riverside Drive (#5) – LOS F AM and PM peak hours
- Collier Avenue & Nichols Road (#6) – LOS E AM peak hour and LOS F PM peak hour
- I-15 Northbound Ramps & Nichols Road (#10) – LOS F AM and PM peak hours
- El Toro Road & Tereticornis Avenue (#17) – LOS F AM peak hour only (with normalized PHF)
- El Toro Road & Carmela Court (#18) – LOS F AM peak hour only (with normalized PHF)

### *Traffic Signal Warrants – EAP 2024 Conditions*

No additional study area intersections are anticipated to meet traffic signal warrants for EA and EAP (2024) traffic conditions in addition to those previously warranted under Existing traffic conditions. As previously indicated, the following intersections meet traffic signal warrants for Existing (2018) traffic conditions; therefore, the addition of Project traffic to the following intersections represent cumulatively-considerable impacts of the proposed Project under EAP (2024) conditions (Urban Crossroads, 2018c, p. 60):

- Collier Avenue & Nichols Road (#6)
- I-15 Southbound Ramps & Nichols Road (#9)
- I-15 Northbound Ramps & Nichols Road (#10)
- El Toro Road & Carmela Court (#18)

### *Off-Ramp Queuing Analysis – EAP 2024 Conditions*

Although the Project would result in direct impacts to the queuing location of I-15 Northbound off-ramp at Nichols Road under EAP (2024) conditions, the Project would not result in any cumulatively-considerable impacts to any off-ramp queuing locations under EAP (2024) conditions.

### *Basic Freeway Segment Analysis – EAP 2024 Conditions*

There are no additional freeway segments anticipated to operate at an unacceptable LOS under EA and EAP (2024) traffic conditions, in addition to those previously identified under EA and EAP (2021) traffic conditions. The Project would contribute traffic to the following freeway segments that were previously-identified as being cumulatively impacted by the Project; thus, Project impacts to the following freeway mainline segments would be cumulatively considerable under EAP (2024) conditions:

- I-15 Freeway Southbound, North of Nichols Road (#1) – LOS E PM peak hour only
- I-15 Freeway Southbound, South of Nichols Road (#2) – LOS E PM peak hour only

### *Freeway Merge/Diverge Analysis – EAP 2024 Conditions*

There are no additional ramp merge/diverge segments anticipated to operate at an unacceptable LOS under EA and EAP (2024) traffic conditions, in addition to those previously identified under EA (2021) traffic conditions. The following freeway merge/diverge location was shown to operate at a deficient LOS under EA (2021) conditions; thus, Project impacts to the following freeway merge/diverge location would be cumulatively considerable under EAP (2024) conditions:

- I-15 Freeway Southbound, Off-Ramp at Nichols Road (#1) – LOS E PM peak hour only

### *Intersection Operations Analysis – EAPC Conditions*

#### ❑ EAPC 2020 Conditions

Impacts to the following intersections are the result of cumulative development traffic; therefore, Project impacts to the following intersections would be cumulatively considerable under EAPC (2020) conditions:

- Lake Street & Nichols Road (#1) – LOS F PM peak hour only
- Collier Avenue & Nichols Road (#6) – LOS F PM peak hour only
- Dexter Avenue & Central Avenue (SR-74) (#19) – LOS E PM peak hour only

The Project would contribute to but would not directly cause the following LOS deficiencies, which were shown to be deficient LOS under EA (2020) conditions; thus, Project impacts at the following intersections would be cumulatively considerable under EAPC (2020) conditions:

- Gunnerson Street/Strickland Avenue (#5) – LOS F AM and PM peak hours
- I-15 Northbound Ramps & Nichols Road (#10) – LOS F AM and PM peak hours
- El Toro Road & Carmela Court (#18) – LOS E PM peak hour only (with normalized PHF)

The following intersection would operate at an acceptable LOS under EAP (2020) conditions, but would degrade to an unacceptable LOS with the addition of cumulative traffic under EAPC (2020) conditions; therefore, Project impacts to the following intersection would be cumulatively considerable under EAPC (2020) conditions.

- El Toro Road & Tereticornis Avenue (#17) – LOS D AM peak hour only (with normalized PHF)

#### ❑ EAPC 2021 Conditions

Consistent with the analysis presented above for EAPC (2020) conditions, the Project would contribute to, but would not directly cause, a deficient LOS at the following locations; thus, Project impacts to the following locations would represent cumulatively-considerable impacts of the proposed Project under EAPC (2021) conditions:

- Lake Street & Nichols Road (#1) – LOS F PM peak hour only
- Gunnerson Street/Strickland Avenue (#5) – LOS F AM and PM peak hours
- Collier Avenue & Nichols Road (#6) – LOS F PM peak hour only
- I-15 Northbound Ramps & Nichols Road (#10) – LOS F AM and PM peak hours
- El Toro Road & Tereticornis Avenue (#17) – LOS D AM peak hour only (with normalized PHF)
- El Toro Road & Carmela Court (#18) – LOS E PM peak hour only (with normalized PHF)
- Dexter Avenue & Central Avenue (SR-74) (#19) – LOS E PM peak hour only

### ❑ EAPC 2024 Conditions

The following intersections were shown to operate at an acceptable LOS under EA (2024) and EAP (2024) conditions. Thus, the projected LOS deficiencies at the following intersections are the result of cumulative development traffic. Because the Project would contribute to but would not direct cause the LOS deficiencies, Project impacts at the following intersections would be cumulatively considerable under EAPC (2024) conditions:

- Alberhill Ranch Road & Nichols Road (#3) – LOS F AM and PM peak hours
- Collier Avenue & Riverside Drive (SR-74) (#7) – LOS E PM peak hour only
- Cambern Avenue & Central Avenue (SR-74) (#20) – LOS E AM and PM peak hours

The following intersection would operate at a deficient LOS under EA (2024) conditions. Thus, because the Project would contribute to, but would not directly cause the projected deficiency, Project impacts to the following intersection would be cumulatively considerable under EAPC (2024) conditions:

- Lakeshore Drive & Riverside Drive (SR-74) (#4) – LOS E AM and PM peak hours

Consistent with EAPC (2020) and EAPC (2021) conditions, the Project would contribute to, but would not directly cause, the projected LOS deficiencies at the following locations; thus, Project impacts to the following intersections would be cumulatively considerable under EAPC (2024) conditions:

- Lake Street & Nichols Road (#1) – LOS F PM peak hour only
- Gunnerson Street/Strickland Avenue (#5) – LOS F AM and PM peak hours
- Collier Avenue & Nichols Road (#6) – LOS F PM peak hour only
- I-15 Northbound Ramps & Nichols Road (#10) – LOS F AM and PM peak hours
- El Toro Road & Tereticornis Avenue (#17) – LOS D AM peak hour only (with normalized PHF)
- El Toro Road & Carmela Court (#18) – LOS E PM peak hour only (with normalized PHF)
- Dexter Avenue & Central Avenue (SR-74) (#19) – LOS E PM peak hour only

#### *Traffic Signal Warrants – EAPC Conditions*

Because the need for signalization of the intersection of Alberhill Ranch Road and Nichols Road is the result of cumulative development traffic, Project impacts due to the need to signalize this intersection would be

cumulatively considerable under EAPC (2021) conditions. No additional warrants have been met under EAPC (2020) or EAPC (2024).

Consistent with EAP (2024) conditions, the Project would contribute to the need for signalization at the following intersections, but would not directly cause the need; thus, Project impacts due to the need to signalize the following intersections would be cumulatively considerable under EAPC (2024) conditions:

- Collier Avenue & Nichols Road (#6)
- I-15 Southbound Ramps & Nichols Road (#9)
- I-15 Northbound Ramps & Nichols Road (#10)
- El Toro Road & Carmela Court (#18)

### *Off-Ramp Queuing Analysis – EAPC Conditions*

There are no movements anticipated to experience queuing issues for EAPC (2020) and EAPC (2021) traffic conditions. In addition to the Project's direct impact to the I-15 Freeway Northbound Off-ramp at Nichols Road (#2), the following movements are anticipated to experience queuing issues during the weekday AM or weekday PM peak 95th percentile traffic flows for EAPC (2024) traffic conditions:

- I-15 Freeway Southbound Off-ramp at Nichols Road (#1): Shared southbound left-through-right turn lane during the AM peak hour only

The I-15 Freeway Southbound Off-ramp at Nichols Road (#1) would not experience queuing issues under EA (2024) or EAP (2024) conditions; thus, the queuing issues are due to cumulative development traffic and Project impacts to this queuing location would be cumulatively considerable under EAPC (2024) conditions.

### *Basic Freeway Segment Analysis – EAPC Conditions*

The following basic freeway segments are anticipated to operate at an unacceptable LOS for EAPC (2020) traffic conditions:

- I-15 Freeway Southbound, North of Nichols Road (#1) – LOS E PM peak hour only
- I-15 Freeway Southbound, South of Nichols Road (#2) – LOS E PM peak hour only

Consistent with the conclusion reached for EAP (2024) conditions, the Project would contribute traffic to the above-listed facilities, but would not directly cause the projected deficiencies; thus, Project impacts to the above-listed freeway segments would be cumulatively considerable under EAPC (2024) conditions.

### *Freeway Merge/Diverge Analysis – EAPC Conditions*

The following ramp merge/diverge segment is anticipated to operate at an unacceptable LOS during one or more peak hours under EAPC (2020) traffic conditions:

- I-15 Freeway Southbound, Off-Ramp at Nichols Road (#1) – LOS E PM peak hour only

The above-listed merge/diverge location was previously shown to operate at a deficient LOS under EA (2020) conditions; thus, Project impacts to the above-listed merge/diverge location would be cumulatively considerable under EAPC (2020), EAPC (2021), and EAPC (2024) conditions.

The following merge/diverge location was shown to operate at an acceptable LOS under EAP (2024) conditions; thus, the deficient LOS under EAPC (2024) conditions is the result of cumulative development traffic. Accordingly, Project impacts to the following merge/diverge location would be cumulatively considerable under EAPC (2024) conditions:

- I-15 Freeway Southbound, On-Ramp at Nichols Road (#2) – LOS E PM peak hour only

There are no additional ramp merge/diverge segments anticipated to operate at an unacceptable LOS during one or more peak hours under EAPC (2021) and EAPC (2024) traffic conditions.

#### *Conflicts with Policies Related to Transit, Roadway, and Pedestrian Facilities*

The proposed Project would not impede operation of bus service, would accommodate planned bicycle facilities as planned by the General Plan and NRSP, and would accommodate trails on site in conformance with Figure 2.6 of the Lake Elsinore General Plan. Other cumulative developments would similarly be required to accommodate transit, roadway, and pedestrian facilities to encourage alternative modes of transportation. As such, the Project's impacts would be less-than-cumulatively considerable.

### *B. Threshold b.*

The following provides a summary of the Project's cumulatively-considerable impacts to CMP facilities under each phase and scenario analyzed for the Project. The Project's direct impacts are not listed below.

#### ❑ EAP (2020) Conditions

Under EAP (2020) conditions, the Project would result in a cumulatively-considerable impact at the following CMP intersections:

- Gunnerson Street/Strickland Avenue & Riverside Drive (#5) – LOS F AM and PM peak hours
- I-15 Northbound Ramps & Nichols Road (#10) – LOS F AM peak hour only

The Project also would result in a cumulatively-considerable impact at the following CMP facility due to the need for signalization of the intersection under EAP (2020) conditions:

- I-15 Northbound Ramps & Nichols Road (#10)

The Project would not result in any cumulatively-considerable impacts due to off-ramp queuing deficiencies under EAP (2020) conditions

The Project would result in a cumulatively-considerable impact to the following freeway segment under EAP (2020) conditions:

- I-15 Freeway Southbound, South of Nichols Road (#2) – LOS E PM peak hour only

The Project also would result in cumulatively-considerable impacts due to a deficient LOS at the following freeway merge/diverge location under EAP (2020) conditions:

- I-15 Freeway Southbound, Off-Ramp at Nichols Road (#1) – LOS E PM peak hour only

### ❑ EAP (2021) Conditions

The addition of Project traffic to the following CMP intersection would represent cumulatively-considerable impacts under EAP 2021 conditions:

- Gunnerson Street/Strickland Avenue & Riverside Drive (#5) – LOS F AM and PM peak hours
- I-15 Northbound Ramps & Nichols Road (#10) – LOS F AM and PM peak hours

The Project also would result in a cumulatively-considerable impact at the following CMP facility due to the need for signalization of the intersection under EAP (2021) conditions:

- I-15 Northbound Ramps & Nichols Road (#10)

The Project would not result in any cumulatively-considerable impacts due to off-ramp queuing deficiencies under EAP (2021) conditions

The Project would result in a cumulatively-considerable impact to the following freeway segments under EAP (2021) conditions:

- I-15 Freeway Southbound, North of Nichols Road (#1) – LOS E PM peak hour only
- I-15 Freeway Southbound, South of Nichols Road (#2) – LOS E PM peak hour only

The Project also would result in cumulatively-considerable impacts due to a deficient LOS at the following freeway merge/diverge location under EAP (2021) conditions:

- I-15 Freeway Southbound, Off-Ramp at Nichols Road (#1) – LOS E PM peak hour only

### ❑ EAP (2024) Conditions

The addition of Project traffic to the following CMP intersections would represent cumulatively-considerable impacts under EAP 2024 conditions:

- Lakeshore Drive & Riverside Drive (SR-74) (#4) – LOS E AM peak hour only
- Gunnerson Street/Strickland Avenue & Riverside Drive (#5) – LOS F AM and PM peak hours

- I-15 Northbound Ramps & Nichols Road (#10) – LOS F AM and PM peak hours

The Project also would result in a cumulatively-considerable impact at the following CMP facilities due to the need for signalization of the intersections under EAP (2024) conditions:

- I-15 Southbound Ramps & Nichols Road (#9)
- I-15 Northbound Ramps & Nichols Road (#10)

The Project would result in a direct impact to the off-ramp queuing location under EAP (2024) conditions:

- I-15 Southbound Off-Ramp at Nichols Road (#2)

The Project would result in a cumulatively-considerable impact to the following freeway segments under EAP (2024) conditions:

- I-15 Freeway Southbound, North of Nichols Road (#1) – LOS E PM peak hour only
- I-15 Freeway Southbound, South of Nichols Road (#2) – LOS E PM peak hour only

The Project also would result in cumulatively-considerable impacts due to a deficient LOS at the following freeway merge/diverge location under EAP (2024) conditions:

- I-15 Freeway Southbound, Off-Ramp at Nichols Road (#1) – LOS E PM peak hour only

### ❑ EAPC (2020) Conditions

The addition of Project traffic to the following CMP intersections would represent cumulatively-considerable impacts under EAPC 2020 conditions:

- Gunnerson Street/Strickland Avenue (#5) – LOS F AM and PM peak hours
- I-15 Northbound Ramps & Nichols Road (#10) – LOS F AM and PM peak hours
- Dexter Avenue & Central Avenue (SR-74) (#19) – LOS E PM peak hour only

The Project also would result in a cumulatively-considerable impact at the following CMP facility due to the need for signalization of the following intersection under EAPC (2020) conditions:

- I-15 Northbound Ramps & Nichols Road (#10)

The Project would not result in any cumulatively-considerable impacts due to off-ramp queuing deficiencies under EAPC (2020) conditions

The Project would result in a cumulatively-considerable impact to the following freeway segments under EAPC (2020) conditions:

- I-15 Freeway Southbound, North of Nichols Road (#1) – LOS E PM peak hour only
- I-15 Freeway Southbound, South of Nichols Road (#2) – LOS E PM peak hour only

The Project also would result in cumulatively-considerable impacts due to a deficient LOS at the following freeway merge/diverge location under EAPC (2020) conditions:

- I-15 Freeway Southbound, Off-Ramp at Nichols Road (#1) – LOS E PM peak hour only

### ❑ EAPC (2021) Conditions

The addition of Project traffic to the following CMP intersections would represent cumulatively-considerable impacts under EAPC 2021 conditions:

- Gunnerson Street/Strickland Avenue (#5) – LOS F AM and PM peak hours
- I-15 Northbound Ramps & Nichols Road (#10) – LOS F AM and PM peak hours
- Dexter Avenue & Central Avenue (SR-74) (#19) – LOS E PM peak hour only

The Project also would result in a cumulatively-considerable impact at the following CMP facility due to the need for signalization of the following intersection under EAPC (2021) conditions:

- I-15 Northbound Ramps & Nichols Road (#10)

The Project would not result in any cumulatively-considerable impacts due to off-ramp queuing deficiencies under EAPC (2021) conditions.

The Project would result in a cumulatively-considerable impact to the following freeway segments under EAPC (2021) conditions:

- I-15 Freeway Southbound, North of Nichols Road (#1) – LOS E PM peak hour only
- I-15 Freeway Southbound, South of Nichols Road (#2) – LOS E PM peak hour only

The Project also would result in cumulatively-considerable impacts due to a deficient LOS at the following freeway merge/diverge location under EAPC (2021) conditions:

- I-15 Freeway Southbound, Off-Ramp at Nichols Road (#1) – LOS E PM peak hour only

### ❑ EAPC (2024) Conditions

The addition of Project traffic to the following CMP intersections would represent cumulatively-considerable impacts under EAPC 2024 conditions:

- Lakeshore Drive & Riverside Drive (SR-74) (#4) – LOS E AM and PM peak hours
- Gunnerson Street/Strickland Avenue (#5) – LOS F AM and PM peak hours
- Collier Avenue & Riverside Drive (SR-74) (#7) – LOS E PM peak hour only

- I-15 Northbound Ramps & Nichols Road (#10) – LOS F AM and PM peak hours
- Dexter Avenue & Central Avenue (SR-74) (#19) – LOS E PM peak hour only
- Cambern Avenue & Central Avenue (SR-74) (#20) – LOS E AM and PM peak hours

The Project also would result in a cumulatively-considerable impact at the following CMP facilities due to the need for signalization of the following intersections under EAPC (2024) conditions:

- I-15 Southbound Ramps & Nichols Road (#9)
- I-15 Northbound Ramps & Nichols Road (#10)

The Project would result in cumulatively-considerable impacts due to off-ramp queuing deficiencies under EAPC (2024) conditions at the following location:

- I-15 Freeway Southbound Off-ramp at Nichols Road (#1): Shared southbound left-through-right turn lane during the AM peak hour only

The Project would result in a cumulatively-considerable impact to the following freeway segments under EAPC (2024) conditions:

- I-15 Freeway Southbound, North of Nichols Road (#1) – LOS E PM peak hour only
- I-15 Freeway Southbound, South of Nichols Road (#2) – LOS E during both peak hours

The Project also would result in cumulatively-considerable impacts due to a deficient LOS at the following freeway merge/diverge locations under EAPC (2020) conditions:

- I-15 Freeway Southbound, Off-Ramp at Nichols Road (#1) – LOS E PM peak hour only
- I-15 Freeway Southbound, On-Ramp at Nichols Road (#2) – LOS E PM peak hour only

### C. *Threshold c.*

As detailed under the discussion of Threshold c., the proposed Project would not create or substantially increase safety hazards due to a design feature or incompatible use. All Project-related construction traffic would be required to comply with a temporary traffic control plan that meets the applicable requirements of the California Manual on Uniform Traffic Control Devices. Accordingly, cumulatively-considerable impacts due to design features or incompatible uses would not occur.

### D. *Threshold d.*

As noted under Threshold d., the Project would improve Nichols Road along its frontage, and would construct Street B between Nichols Road and the north-south aligned segment of El Toro Road. Although these improvements could temporarily disrupt traffic, any construction-related traffic impacts resulting from the Project would be addressed through the requirement to comply with a temporary traffic control plan that meets the applicable requirements of the California Manual on Uniform Traffic Control Devices. Although impacts during construction are anticipated to be less than significant, Mitigation Measure MM 4.16-1 has nonetheless

been identified to ensure Project compliance with the requirements to prepare and implement a traffic control plan during construction activities. Other projects that may be under construction simultaneous with the proposed Project similarly would be required to adhere to a traffic control plan. Furthermore, as shown previously on EIR Figure 4.0-1, there are no cumulative developments in close proximity to the Project site that could contribute to the Project's potential impacts to emergency access routes during construction activities. As a result, impacts during the Project's construction would be less-than-cumulatively considerable.

### 4.16.9 SIGNIFICANCE OF IMPACTS BEFORE MITIGATION

**Threshold a.: Significant Direct and Cumulatively-Considerable Impact.** The proposed Project would result in direct and cumulatively-considerable impacts to study area facilities under each phase of the proposed Project. Table 4.16-34, *Summary of Project Intersection Impacts by Study Scenario*, provides a summary of the Project's direct and cumulatively-considerable impacts to study area intersections under each study scenario. Table 4.16-35, *Project Impacts Due to Signal Warrants by Study Scenario*, shows the Project's impacts due to traffic signal warrants for each study scenario. Table 4.16-36, *Project Impacts to Off-Ramp Queuing Locations by Study Scenario*, summarizes the Project's impacts to off-ramp queuing locations under each scenario. Table 4.16-37, *Project Impacts to Freeway Segments by Study Scenario*, shows the Project's impacts to freeway segments under each study scenario, while Table 4.16-38, *Project Impacts to Freeway Junction Merge/Diverge Locations by Study Scenario*, shows the Project's impacts to freeway junction merge/diverge locations for each study scenario. Additionally, the proposed Project would not conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities), and impacts would be less than significant.

**Threshold b.: Significant Direct and Cumulatively-Considerable Impact.** The Project would result in direct and cumulatively-considerable impacts to transportation facilities identified by the RCTC CMP as CMP facilities. Table 4.16-34 and Table 4.16-35 identify the study area intersections that are CMP facilities, and summarizes by study scenario the Project's impacts to intersections and traffic signal warrants, respectively. Table 4.16-36, Table 4.16-37, and Table 4.16-38 summarizes the Project's direct and cumulatively-considerable impacts to CMP off-ramp queuing locations, CMP freeway segments, and CMP freeway merge/diverge locations, respectively.

**Threshold c.: Less-than-Significant Impact.** The proposed Project would not create or substantially increase safety hazards due to a design feature or incompatible use, and impacts would be less than significant.

**Threshold d.: Significant Direct Impact.** Due to temporary lane closures that may occur during the Project's construction phase, Project-related construction activities may conflict with emergency access routes and access to nearby uses during frontage improvements to Nichols Road and the proposed connection to El Toro Road via B Street. Project-related construction traffic would be required to comply with a temporary traffic control plan that meets the applicable requirements of the California Manual on Uniform Traffic Control Devices. Although it is anticipated a less-than-significant impact would occur with the requirement to implement a temporary traffic control plan during construction, out of an abundance of caution, a significant impact is identified. Accordingly, near-term impacts to emergency access would be significant prior to mitigation.

## Table 4.16-34 Summary of Project Intersection Impacts by Study Scenario

| # | Intersection | CMP? | EAP 2020 | EAP 2021 | EAP 2024 | EAPC 2020 | EAPC 2021 | EAPC 2024 |
|---|---|---|---|---|---|---|---|---|
| 1 | Lake St. & Nichols Rd. | No | -- | -- | -- | C* | C* | C* |
| 2 | Lake St. & Alberhill Ranch Rd. | No | -- | -- | -- | -- | -- | -- |
| 3 | Alberhill Ranch Rd. & Nichols Rd. | No | -- | -- | -- | -- | -- | C* |
| 4 | Lakeshore Dr. & Riverside Dr. (SR-74) | Yes | -- | -- | C | -- | -- | C |
| 5 | Gunnerson St./Strickland Av. & Riverside Dr. (SR-74) | Yes | C* | C* | C* | C* | C* | C* |
| 6 | Collier Av. & Nichols Rd. | No | -- | D | C* | C | C* | C* |
| 7 | Collier Av. & Riverside Dr. (SR-74) | Yes | -- | -- | -- | -- | -- | C* |
| 8 | Collier Av. & Central Av. (SR-74) | Yes | -- | -- | -- | -- | -- | -- |
| 9 | I-15 Southbound Ramps & Nichols Rd. | Yes | -- | -- | D | -- | -- | D |
| 10 | I-15 Northbound Ramps & Nichols Rd. | Yes | C** | C** | C** | C** | C** | C** |
| 11 | A St. & Nichols Rd. | No | -- | -- | -- | -- | -- | -- |
| 12 | B St. & Nichols Rd. | No | -- | -- | -- | -- | -- | -- |
| 13 | B St. & F St. | No | -- | -- | -- | -- | -- | -- |
| 14 | B St. & H St. | No | -- | -- | -- | -- | -- | -- |
| 15 | K St. and B St. | No | -- | -- | -- | -- | -- | -- |
| 16 | El Toro Rd. & B St. | No | -- | -- | -- | -- | -- | -- |
| 17 | E Toro Rd & Tereticornis Av. | No | --[1] | C | C | C | C | C |
| 18 | El Toro Rd. & Carmela Ct. | No | C* | C* | C* | C* | C* | C* |
| 19 | Dexter Av. & Central Av. (SR-74) | Yes | -- | -- | -- | C* | C* | C* |
| 20 | Cambern Av. & Central Av. (SR-74) | Yes | -- | -- | -- | -- | -- | C* |
| 21 | Driveway 1 & Nichols Rd. | No | -- | -- | -- | -- | -- | -- |

1. Although the intersection of El Toro Road and Tereticornis Avenue is anticipated to operate at an unacceptable LOS during the AM peak hour under EAP (2020) conditions, it is anticipated to operate at an acceptable LOS with a normalized PHF.

Notes: "D" = Direct Impact; "C" = Cumulatively-Considerable Impact; "--" = No Impact/Less-than-Significant Impact.

* = Although mitigation is proposed in the form of fair-share contributions or fee payments to TUMF or TIF, the timing of required improvements is unknown; thus, it cannot be assured that the required improvements would be in place prior to the development phase shown above, and impacts would therefore be significant and unavoidable.

** = Mitigation is not available for these impacts beyond payment of TIF and/or TUMF fees; thus, impacts would be significant and unavoidable.

## Table 4.16-35 Project Impacts Due to Signal Warrants by Study Scenario

| # | Intersection | CMP? | EAP 2020 | EAP 2021 | EAP 2024 | EAPC 2020 | EAPC 2021 | EAPC 2024 |
|---|---|---|---|---|---|---|---|---|
| 1 | Lake St. & Nichols Rd. | No | -- | -- | -- | -- | -- | -- |
| 2 | Lake St. & Alberhill Ranch Rd. | No | -- | -- | -- | -- | -- | -- |
| 3 | Alberhill Ranch Rd. & Nichols Rd. | No | -- | -- | -- | -- | -- | C* |
| 4 | Lakeshore Dr. & Riverside Dr. (SR-74) | Yes | -- | -- | -- | -- | -- | -- |
| 5 | Gunnerson St./Strickland Av. & Riverside Dr. (SR-74) | Yes | -- | -- | -- | -- | -- | -- |
| 6 | Collier Av. & Nichols Rd. | No | -- | C* | C* | -- | C* | C* |
| 7 | Collier Av. & Riverside Dr. (SR-74) | Yes | -- | -- | -- | -- | -- | -- |
| 8 | Collier Av. & Central Av. (SR-74) | Yes | -- | -- | -- | -- | -- | -- |
| 9 | I-15 Southbound Ramps & Nichols Rd. | Yes | -- | -- | C | -- | -- | C |
| 10 | I-15 Northbound Ramps & Nichols Rd. | Yes | C** | C** | C** | C** | C** | C** |
| 11 | A St. & Nichols Rd. | No | -- | -- | -- | -- | -- | -- |
| 12 | B St. & Nichols Rd. | No | -- | -- | -- | -- | -- | -- |
| 13 | B St. & F St. | No | -- | -- | -- | -- | -- | -- |
| 14 | B St. & H St. | No | -- | -- | -- | -- | -- | -- |
| 15 | K St. and B St. | No | -- | -- | -- | -- | -- | -- |
| 16 | El Toro Rd. & B St. | No | -- | -- | -- | -- | -- | -- |
| 17 | E Toro Rd & Tereticornis Av. | No | -- | -- | -- | -- | -- | -- |
| 18 | El Toro Rd. & Carmela Ct. | No | C* | C* | C* | C* | C* | C* |
| 19 | Dexter Av. & Central Av. (SR-74) | Yes | -- | -- | -- | -- | -- | -- |
| 20 | Cambern Av. & Central Av. (SR-74) | Yes | -- | -- | -- | -- | -- | -- |
| 21 | Driveway 1 & Nichols Rd. | No | -- | -- | -- | -- | -- | -- |

Notes: “D” = Direct Impact; “C” = Cumulatively-Considerable Impact; “--" = No Impact/Less-than-Significant Impact

* = Although mitigation is proposed in the form of fair-share contributions or fee payments to TUMF or TIF, the timing of required improvements is unknown; thus, it cannot be assured that the required improvements would be in place prior to the development phase shown above, and impacts would therefore be significant and unavoidable.

** = Mitigation is not available for these impacts beyond payment of TIF and/or TUMF fees; thus, impacts would be significant and unavoidable.

### Table 4.16-36 Project Impacts to Off-Ramp Queuing Locations by Study Scenario

| Intersection | EAP 2020 | EAP 2021 | EAP 2024 | EAPC 2020 | EAPC 2021 | EAPC 2024 |
|---|---|---|---|---|---|---|
| I-15 SB Off-Ramp & Nichols Rd. (#1) | -- | -- | -- | -- | -- | C** |
| I-15 NB Off-Ramp & Nichols Rd. (#2) | -- | -- | D** | -- | -- | D** |

Notes: "D" = Direct Impact; "C" = Cumulatively-Considerable Impact; "--" = No Impact/Less-than-Significant Impact
** = Mitigation is not available for these impacts beyond payment of TIF and/or TUMF fees; thus, impacts would be significant and unavoidable.

### Table 4.16-37 Project Impacts to Freeway Segments by Study Scenario

| Freeway | Direction | Mainline Segment | EAP 2020 | EAP 2021 | EAP 2024 | EAPC 2020 | EAPC 2021 | EAPC 2024 |
|---|---|---|---|---|---|---|---|---|
| I-15 Freeway | Southbound | North of Nichols Rd. (#1) | -- | C** | C** | C** | C** | C** |
| | | South of Nichols Rd. (#2) | C** | C** | C** | C** | C** | C** |
| | Northbound | North of Nichols Rd. (#3) | -- | -- | -- | -- | -- | -- |
| | | South of Nichols Rd. (#4) | -- | -- | -- | -- | -- | -- |

Notes: "D" = Direct Impact; "C" = Cumulatively-Considerable Impact; "--" = No Impact/Less-than-Significant Impact
** = Mitigation is not available for these impacts beyond payment of TIF and/or TUMF fees; thus, impacts would be significant and unavoidable.

Table 4.16-38 Project Impacts to Freeway Junction Merge/Diverge Locations by Study Scenario

| Freeway | Direction | Mainline Segment | EAP 2020 | EAP 2021 | EAP 2024 | EAPC 2020 | EAPC 2021 | EAPC 2024 |
|---|---|---|---|---|---|---|---|---|
| I-15 Freeway | Southbound | Off-Ramp at Nichols Rd. (#1) | C** | C** | C** | C** | C** | C** |
| | | On-Ramp at Nichols Rd. (#2) | -- | -- | -- | -- | -- | C** |
| | Northbound | On-Ramp at Nichols Rd. (#3) | -- | -- | -- | -- | -- | -- |
| | | Off-Ramp at Nichols Rd. (#4) | -- | -- | -- | -- | -- | -- |

Notes: "D" = Direct Impact; "C" = Cumulatively-Considerable Impact; "--" = No Impact/Less-than-Significant Impact
** = Mitigation is not available for these impacts beyond payment of TIF and/or TUMF fees; thus, impacts would be significant and unavoidable.

## 4.16.10 City Regulations, Design Requirements, and Mitigation

### *Applicable City Regulations and Design Requirements*

The following are applicable regulations and design requirements within the City of Lake Elsinore. Although these requirements technically do not meet CEQA's definition for mitigation, they are identified herein to ensure Project compliance with applicable City regulations and design requirements. The following measures are included in the Project's conditions of approval:

- Prior to issuance of certificates of occupancy for each phase of the proposed development, the Project Applicant shall pay fees in accordance with Title 16, Chapter 16.74 (Development Impact Fees) of the City of Lake Elsinore Municipal Code.

- Prior to issuance of certificates of occupancy for each phase of the proposed development, the Project Applicant shall pay fees in accordance with Title 16, Chapter 16.83 (Western Riverside County Transportation Uniform Mitigation Fee Program) of the City of Lake Elsinore Municipal Code.

### *Mitigation for Construction-Related Impacts*

MM 4.16-1 Prior to the issuance of grading permits or improvement plans affecting Nichols Road and/or El Toro Road/Wood Mesa Court, the Project Applicant shall prepare and the City of Lake Elsinore shall approve a temporary traffic control plan. The temporary traffic control plan shall comply with the applicable requirements of the California Manual on Uniform Traffic Control Devices. A requirement to comply with the temporary traffic control plan shall be noted on all grading and improvement plans and also shall be specified in bid documents issued to prospective construction contractors.

### *Mitigation for Phase 1 Direct and Cumulatively-Considerable Traffic Impacts*

MM 4.16-2 Prior to the issuance of certificates of occupancy for Phase 1 of the proposed development, the Project Applicant shall use reasonable efforts to make a fair-share monetary contribution to the City of Lake Elsinore, to be held in trust, for the following improvements to the intersection of Lake Street at Nichols Rd. (#1):

- Construct a second northbound through lane;
- Construct a second southbound through lane;
- Construct an eastbound left-turn lane; and
- Construct a westbound left turn lane.

The Project's fair share of the above-listed improvements is 0.3% for Phase 1 of the proposed Project.

MM 4.16-3 Prior to the issuance of certificates of occupancy for Phase 1 of the proposed development, the Project Applicant shall make a fair-share monetary contribution to the City of Lake Elsinore

for the following improvement to the intersection of Gunnerson Street/Strickland Avenue at Riverside Drive (SR-74) (#5):

- Install a traffic signal.

The Project's fair share of the above-listed improvements is 0.2% for Phase 1 of the proposed Project.

MM 4.16-4 Prior to issuance of certificates of occupancy for Phase 1 of the proposed development, the Project Applicant shall construct the following improvement at the intersection of Collier Av. At Nichols Rd. (#6):

- Convert the intersection to all-way stop (AWS) control.

MM 4.16-5 Prior to the issuance of certificates of occupancy for Phase 1 of the proposed development, the Project Applicant shall construct the following improvement to the intersection of El Toro Rd. at Tereticornis Av. (#17):

- Convert the intersection to all-way stop (AWS) control.

MM 4.16-6 Prior to the issuance of certificates of occupancy for Phase 1 of the proposed development, the Project Applicant shall use reasonable efforts to make a fair-share monetary contribution to the County of Riverside, to be held in trust, for the following improvements to the intersection of El Toro Rd. at Carmella Ct. (#18):

- Convert the intersection to all-way stop (AWS) control; and
- Remove a portion of on-street parking to provide a southbound right-turn lane.

The County of Riverside shall establish a fair-share funding program for these improvements and shall only use the funds paid by the Project Applicant for the purpose of implementing these improvements. If within five years of the date of collection of the Project Applicant's fair-share fee payment, the County of Riverside has not established a fair-share funding program for the required improvements, then the City of Lake Elsinore shall return the funds to the Project Applicant. The Project's fair share of the above-listed improvements is 22.7% for Phase 1 of the proposed Project.

### *Mitigation for Phase 2 Direct and Cumulatively-Considerable Traffic Impacts*

MM 4.16-7 Prior to the issuance of certificates of occupancy for Phase 2 of the proposed development, the Project Applicant shall make a fair-share monetary contribution to the City of Lake Elsinore for the following improvements to the intersection of Lake Street at Nichols Rd. (#1):

- Construct a second northbound through lane;

- Construct a second southbound through lane;
- Construct an eastbound left-turn lane; and
- Construct a westbound left turn lane.

The Project's fair share of the above-listed improvement is 1.2% for Phase 2 of the proposed Project, of which 0.3% shall be paid as part of Phase 1 pursuant to Mitigation Measure MM 4.16-2 and 0.9% shall be paid as part of Phase 2 development pursuant to this mitigation measure.

MM 4.16-8 Prior to the issuance of certificates of occupancy for Phase 2 of the proposed development, the Project Applicant shall make a fair-share monetary contribution to the City of Lake Elsinore for the following improvement to the intersection of Gunnerson Street/Strickland Avenue at Riverside Drive (SR-74) (#5):

- Install a traffic signal.

The Project's fair share of the above-listed improvements is 0.6% for Phase 2 of the proposed Project (in addition to the 0.2% required by Mitigation Measure MM 4.16-3 for Phase 1).

MM 4.16-9 Prior to the issuance of certificates of occupancy for Phase 2 of the proposed development, the Project Applicant shall make a fair-share monetary contribution to the City of Lake Elsinore for the following improvement to the intersection of Collier Avenue at Nichols Road (#6):

- Install a traffic signal.

The Project's fair share of the above-listed improvements is 9.6% for Phase 2 of the proposed Project.

MM 4.16-10 Prior to the issuance of certificates of occupancy for Phase 2 of the proposed development, the Project Applicant shall make a fair-share monetary contribution to the County of Riverside, to be held in trust, for the following improvements to the intersection of El Toro Rd. at Carmella Ct. (#18):

- Convert the intersection to all-way stop (AWS) control; and
- Remove a portion of on-street parking to provide a southbound right-turn lane.

The County of Riverside shall establish a fair-share funding program for these improvements and shall only use the funds paid by the Project Applicant for the purpose of implementing these improvements. If within five years of the date of collection of the Project Applicant's fair-share fee payment, the County of Riverside has not established a fair-share funding program for the required improvements, then the County of Riverside shall return the funds to the Project Applicant. The Project's fair share of the above-listed improvements is 49.0% for

Phase 2 of the proposed Project, of which 22.7% shall be paid as part of Phase 1 pursuant to Mitigation Measure MM 4.16-6 and 26.3% shall be paid as part of Phase 2 development pursuant to this mitigation measure.

### *Mitigation for Phase 3 Direct and Cumulatively-Considerable Traffic Impacts*

MM 4.16-11 Prior to the issuance of certificates of occupancy for Phase 3 of the proposed development, the Project Applicant shall make a fair-share monetary contribution to the City of Lake Elsinore for the following improvements to the intersection of Lake Street at Nichols Rd. (#1):

- Construct a second northbound through lane;
- Construct a second southbound through lane;
- Construct an eastbound left-turn lane;
- Construct a westbound left turn lane;
- Construct a southbound right-turn lane; and
- Construct an eastbound right-turn lane.

The Project's fair share of the above-listed improvement is 6.8% for Phase 3 of the proposed Project. For the first four improvements listed above, 0.3% shall be paid as part of Phase 1 pursuant to Mitigation Measure MM 4.16-2, 0.9% shall be paid as part of Phase 2 development pursuant to Mitigation Measure MM 4.16-7, and 5.6% shall be paid as part of Phase 3 development pursuant to this mitigation measure. For the fifth and sixth improvements listed above, the Project Applicant shall contribute the full 6.8% towards the cost of the required improvements.

MM 4.16-12 Prior to the issuance of certificates of occupancy for Phase 3 of the proposed development, the Project Applicant shall make a fair-share monetary contribution to the City of Lake Elsinore for the following improvement to the intersection of Alberhill Ranch Rd. at Nichols Rd. (#3):

- Install a traffic signal.

The Project's fair share of the above-listed improvement is 17.7% for Phase 3 of the proposed Project.

MM 4.16-13 Prior to the issuance of certificates of occupancy for Phase 3 of the proposed development, the Project Applicant shall construct the following improvement to the intersection of Lakeshore Dr. at Riverside Dr. (#4):

- Restripe the WB right turn lane to a WB shared through-right turn lane

MM 4.16-14 Prior to the issuance of certificates of occupancy for Phase 3 (buildout) of the proposed development, the Project Applicant shall make a fair-share monetary contribution to the City

of Lake Elsinore for the following improvement to the intersection of Gunnerson Street/Strickland Avenue at Riverside Drive (SR-74) (#5):

- Install a traffic signal.

The Project's fair share of the above-listed improvements is 4.4% for Phase 3 of the proposed Project (in addition to the 0.2% required by Mitigation Measure MM 4.16-3 for Phase 1 and the 0.6% required by Mitigation Measure MM 4.16-8 for Phase 2).

MM 4.16-15 Prior to the issuance of certificates of occupancy for Phase 3 (buildout) of the proposed development, the Project Applicant shall make a fair-share monetary contribution to the City of Lake Elsinore, to be held in trust, for the following improvement to the intersection of Collier Avenue at Nichols Road (#6):

- Install a traffic signal.

The Project's fair share of the above-listed improvements is 23.2% for Phase 3 of the proposed Project (in addition to the 9.6% required by Mitigation Measure MM 4.16-9 for Phase 2).

MM 4.16-16 Prior to the issuance of certificates of occupancy for Phase 3 (buildout) of the proposed development, the Project Applicant shall construct the following improvement to the intersection of the I-15 SB Ramps & Nichols Road (#9), with appropriate fee credits:

- Install a traffic signal.
- Add a SB left turn lane

MM 4.16-17 Prior to the issuance of certificates of occupancy for Phase 3 (buildout) of the proposed Project, the Project Applicant shall use reasonable efforts to make a fair-share monetary contribution to the County of Riverside, to be held in trust, for the following improvement to the intersection of El Toro Road at Carmela Court (#18):

- Convert the intersection to all-way stop (AWS) control;
- Remove a portion of on-street parking to provide a southbound right-turn lane;
- Implementation of a traffic guard at this intersection during the AM peak hour only during the peak AM period when students arrive at the Temescal Canyon High School; and
- Remove a portion of on-street parking to provide a northbound left-turn lane

The County of Riverside shall establish a fair-share funding program for these improvements and shall only use the funds paid by the Project Applicant for the purpose of implementing these improvements. If within five years of the date of collection of the Project Applicant's fair-share fee payment, the County of Riverside has not established a fair-share funding program for the required improvements, then the County of Riverside shall return the funds to

the Project Applicant. The Project's fair share of the above-listed improvements is 62.8%. For the first two improvements listed above, 22.7% shall be paid as part of Phase 1 pursuant to Mitigation Measure MM 4.16-6, 26.3% shall be paid as part of Phase 2 development pursuant to Mitigation Measure MM 4.16-10, and 13.8% shall be paid as part of Phase 3 development pursuant to this mitigation measure. For the third and fourth improvements listed above, the Project shall contribute the full 62.8% towards the costs of the required improvements. For the traffic guard, the fair share amount shall either be based on 62.8% of the total cost to establish a non-wasting endowment to pay for the required traffic guard on an on-going basis, or a fair-share annual payment to the County of Riverside shall be made by the Project's homeowners' association for the cost of the required traffic guard.

## 4.16.11 Significance of Impacts After Mitigation

**Threshold a.: Significant and Unavoidable Direct and Cumulatively-Considerable Impacts.** Provided below is a summary of the significance of the Project's impacts to transportation and traffic following implementation of the City Regulations and Design Requirements and Mitigation Measures MM 4.16-1 through MM 4.16-17 (as applicable) for each phase of the proposed Project.

### ❑ Phase 1 Conditions (EAP 2020 and EAPC 2020)

#### *Intersections – EAP 2020 and EAPC 2020*

As shown in Table 4.16-39, *Intersection Analysis for EAP (2020) Conditions with Improvements*, and Table 4.16-40, *Intersection Analysis for EAPC Conditions with Improvements*, improvements identified as part of TIF and/or TUMF would improve the LOS at the following intersections to acceptable levels. However, it cannot be assured that the required improvements would be in place prior to occupancy of Phase 1 of the proposed Project; therefore, Project impacts to the following intersections would represent near-term significant and unavoidable impacts of the proposed Project for Phase 1 conditions prior to implementation of the required improvements:

- I-15 Northbound Ramps at Nichols Rd. (#10)
- Dexter Av. at Central Av. (SR-74) (#19)

As shown in Table 4.16-40, implementation of the improvements listed in Mitigation Measures MM 4.16-2, MM 4.16-3, and MM 4.16-6 would improve the LOS at the following intersections to acceptable levels under EAPC (2020) conditions. However, because the mitigation requires only fair share payments towards the cost of the improvements, it cannot be assured that the required improvements would be in place at the time of occupancy of Phase 1 of the proposed Project; therefore, near-term Project impacts to the following intersections would be cumulatively considerable and unavoidable under EAPC (2020) conditions until the required improvements are in place:

- Lake St. at Nichols Rd. (#1)
- Gunnerson St./Strickland Av. at Riverside Drive (SR-74) (#5)
- El Toro Rd. at Carmela Ct. (#18)

As indicated in Table 4.16-40, implementation of Mitigation Measure MM 4.16-4 would improve the LOS at the intersection of Collier Av. at Nichols Rd. (#6) from LOS F to an acceptable LOS C during the PM peak hour. Therefore, implementation of the required mitigation would reduce the Project's impacts at this intersection to less-than-significant levels.

## Table 4.16-39 Intersection Analysis for EAP (2020) Conditions with Improvements

| # | Intersection | Traffic Control[3] | Intersection Approach Lanes[1] | | | | | | | | | | | | Delay[2] (secs.) | | Level of Service | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Northbound | | | Southbound | | | Eastbound | | | Westbound | | | | | | |
| | | | L | T | R | L | T | R | L | T | R | L | T | R | AM | PM | AM | PM |
| 5 | Gunnerson St./Strickland Av. & Riverside Dr. (SR-74) | | | | | | | | | | | | | | | | | |
| | EA (2020) | | | | | | | | | | | | | | | | | |
| | - Without Improvements | CSS | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | **97.8** | **>100.0** | **F** | **F** |
| | - With Improvements[4,5] | **TS** | 0 | 1 | 1 | 0 | 1 | 1 | **1** | 1 | 0 | **1** | 1 | 0 | 9.1 | 9.1 | A | A |
| | EAP (2020) | | | | | | | | | | | | | | | | | |
| | - Without Improvements | CSS | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | **99.9** | **>100.0** | **F** | **F** |
| | - With Improvements[4,5] | **TS** | 0 | 1 | 1 | 0 | 1 | 1 | **1** | 1 | 0 | **1** | 1 | 0 | 9.1 | 9.1 | A | A |
| 10 | I-15 Northbound Ramps & Nichols Rd. | | | | | | | | | | | | | | | | | |
| | EA (2020) | | | | | | | | | | | | | | | | | |
| | - Without Improvements | CSS | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | **>100.0** | **35.3** | **F** | **E** |
| | - With Improvements | **TS** | 0 | 1 | **1** | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 14.2 | 18.0 | B | B |
| | EAP (2020) | | | | | | | | | | | | | | | | | |
| | - Without Improvements | CSS | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | **>100.0** | **38.4** | **F** | **E** |
| | - With Improvements | **TS** | 0 | 1 | **1** | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 14.4 | 18.3 | B | B |
| 18 | El Toro Rd. & Carmela Ct. | | | | | | | | | | | | | | | | | |
| | EA (2020) | | | | | | | | | | | | | | | | | |
| | - Without Improvements | CSS | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | **>100.0** | 11.7 | **F** | B |
| | - With Improvements[7] | **AWS** | 0 | 1 | 0 | 0 | 1 | **1** | 0 | 1 | 0 | 0 | 1 | 0 | **71.4** | 9.3 | **F** | A |
| | - Without Improvements[6] | CSS | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | **>100.0** | **--** | **F** | **--** |
| | - With Improvements[6,7] | **AWS** | 0 | 1 | 0 | 0 | 1 | **1** | 0 | 1 | 0 | 0 | 1 | 0 | 21.9 | -- | C | -- |
| | EAP (2020) | | | | | | | | | | | | | | | | | |
| | - Without Improvements | CSS | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | **>100.0** | 11.7 | **F** | B |
| | - With Improvements[7] | **AWS** | 0 | 1 | 0 | 0 | 1 | **1** | 0 | 0 | 0 | 0 | 1 | 0 | **72.6** | 9.4 | **F** | A |
| | - Without Improvements[6] | CSS | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | **>100.0** | -- | **F** | -- |
| | - With Improvements[6,7] | **AWS** | 0 | 1 | 0 | 0 | 1 | **1** | 0 | 0 | 0 | 0 | 1 | 0 | 22.1 | -- | C | -- |

* **BOLD** = LOS does not meet the applicable jurisdictional requirements (i.e., unacceptable LOS).

1 When a right turn is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside the through lanes.

L = Left; T = Through; R = Right; d = Defacto Right Turn Lane; **1** = Improvement

2 Per the Highway Capacity Manual (6th Edition), overall average intersection delay and level of service are shown for intersections with a traffic signal or all way stop control. For intersections with cross street-stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown.

3 CSS = Cross-street Stop; AWS = All-way Stop; TS = Traffic Signal; **CSS** = Improvement

4 Eastbound and westbound left turn lanes are currently under construction and are anticipated to be in place by summer 2018. However, the intersection is anticipated to continue to operate at an unacceptable LOS without the installation of a traffic signal.

5 Although the intersection is not anticipated to warrant a traffic signal under Existing, EA, and EAP conditions, the addition of lane geometric improvements alone is not anticipated to improve the peak hour delays. As such, the intersection should be monitored and a traffic signal should be installed at the City Traffic Engineer's discretion.

6 A normalized AM PHF of 0.92 is used to determine peak hour operations outside of the 10-15 minute drop-off period.

7 Prohibit on-street parking to allow restriping for a 100 foot southbound right turn pocket.

(Urban Crossroads, 2018c, Table 6-5)

## Table 4.16-40 Intersection Analysis for EAPC Conditions with Improvements

| # | Intersection | Traffic Control[3] | Intersection Approach Lanes[1] | | | | | | | | | | | | Delay[2] (secs.) | | Level of Service | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Northbound | | | Southbound | | | Eastbound | | | Westbound | | | | | | |
| | | | L | T | R | L | T | R | L | T | R | L | T | R | AM | PM | AM | PM |
| 1 | Lake St. & Nichols Rd. | | | | | | | | | | | | | | | | | |
| | EAPC (2020) | | | | | | | | | | | | | | | | | |
| | - Without Improvements | TS | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 24.2 | **126.0** | C | **F** |
| | - With Improvements | TS | 1 | **2** | 1 | 1 | **2** | 0 | **1** | 1 | 0 | **1** | 1 | 0 | 25.6 | 30.0 | C | C |
| | EAPC (2021) | | | | | | | | | | | | | | | | | |
| | - Without Improvements | TS | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 31.7 | **180.5** | C | **F** |
| | - With Improvements | TS | 1 | **2** | 1 | 1 | **2** | 0 | **1** | 1 | 0 | **1** | 1 | 0 | 30.4 | 43.0 | C | D |
| | EAPC (2024) | | | | | | | | | | | | | | | | | |
| | - Without Improvements | TS | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | **81.6** | **>200.0** | **F** | **F** |
| | - With Improvements | TS | 1 | **2** | 1 | 1 | **2** | **1** | **1** | 1 | **1** | **1** | 1 | 0 | 39.0 | 54.2 | D | D |
| 3 | Alberhill Ranch Rd. & Nichols Rd. | | | | | | | | | | | | | | | | | |
| | EAPC (2020) | | | | | | | | | | | | | | | | | |
| | - Without Improvements | AWS | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 16.0 | 13.0 | C | B |
| | - With Improvements | | Not Applicable | | | | | | | | | | | | | | | |
| | EAPC (2021) | | | | | | | | | | | | | | | | | |
| | - Without Improvements | AWS | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 21.2 | 16.7 | C | C |
| | - With Improvements | | Not Applicable | | | | | | | | | | | | | | | |
| | EAPC (2024) | | | | | | | | | | | | | | | | | |
| | - Without Improvements | AWS | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | **>100.0** | **83.0** | **F** | **F** |
| | - With Improvements[4] | **TS** | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 46.0 | 43.4 | D | D |
| 4 | Lakeshore Dr. & Riverside Dr. (SR-74) | | | | | | | | | | | | | | | | | |
| | EAPC (2020) | | | | | | | | | | | | | | | | | |
| | - Without Improvements | TS | 1 | 2 | 0 | 1 | 2 | 1 | 1 | 2 | 1 | 1 | 1 | 1 | 49.7 | 47.9 | D | D |
| | - With Improvements | | Not Applicable | | | | | | | | | | | | | | | |
| | EAPC (2021) | | | | | | | | | | | | | | | | | |
| | - Without Improvements | TS | 1 | 2 | 0 | 1 | 2 | 1 | 1 | 2 | 1 | 1 | 1 | 1 | 53.1 | 51.8 | D | D |
| | - With Improvements | | Not Applicable | | | | | | | | | | | | | | | |
| | EAPC (2024) | | | | | | | | | | | | | | | | | |
| | - Without Improvements | TS | 1 | 2 | 0 | 1 | 2 | 1 | 1 | 2 | 1 | 1 | 1 | 1 | **67.0** | **66.9** | **E** | **E** |
| | - With Improvements[4] | TS | 1 | 2 | 0 | 1 | 2 | 1 | 1 | 2 | 1 | 1 | **2** | **0** | 49.6 | 49.1 | D | D |
| 5 | Gunnerson St./Strickland Av. & Riverside Dr. (SR-74) | | | | | | | | | | | | | | | | | |
| | EAPC (2020) | | | | | | | | | | | | | | | | | |
| | - Without Improvements | CSS | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | **>100.0** | **>100.0** | **F** | **F** |
| | - With Improvements[5,6] | **TS** | 0 | 1 | 1 | 0 | 1 | 1 | **1** | 1 | 0 | **1** | 1 | 0 | 9.1 | 9.1 | A | A |
| | EAPC (2021) | | | | | | | | | | | | | | | | | |
| | - Without Improvements | CSS | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | **>100.0** | **>100.0** | **F** | **F** |
| | - With Improvements[5,6] | **TS** | 0 | 1 | 1 | 0 | 1 | 1 | **1** | 1 | 0 | **1** | 1 | 0 | 9.2 | 9.1 | A | A |
| | EAPC (2024) | | | | | | | | | | | | | | | | | |
| | - Without Improvements | CSS | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | **>100.0** | **>100.0** | **F** | **F** |
| | - With Improvements[5,6] | **TS** | 0 | 1 | 1 | 0 | 1 | 1 | **1** | 1 | 0 | **1** | 1 | 0 | 9.4 | 12.3 | A | B |
| 6 | Collier Av. & Nichols Rd. | | | | | | | | | | | | | | | | | |
| | EAPC (2020) | | | | | | | | | | | | | | | | | |
| | - Without Improvements | CSS | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 29.7 | **74.7** | D | **F** |
| | - With Improvements | **AWS** | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 31.7 | 23.4 | D | C |
| | EAPC (2021) | | | | | | | | | | | | | | | | | |
| | - Without Improvements | CSS | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 41.1 | **>100.0** | E | **F** |
| | - With Improvements | **TS** | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 10.2 | 15.0 | B | B |
| | EAPC (2024) | | | | | | | | | | | | | | | | | |
| | - Without Improvements | CSS | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | **>100.0** | **>100.0** | **F** | **F** |
| | - With Improvements | **TS** | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 20.7 | 44.8 | C | D |

## Table 4.16-40 Intersection Analysis for EAPC Conditions with Improvements (Cont'd)

| # | Intersection | Traffic Control[3] | Intersection Approach Lanes[1] | | | | | | | | | | | | Delay[2] (secs.) | | Level of Service | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Northbound | | | Southbound | | | Eastbound | | | Westbound | | | | | | |
| | | | L | T | R | L | T | R | L | T | R | L | T | R | AM | PM | AM | PM |
| 7 | Collier Av. & Riverside Dr. (SR-74) | | | | | | | | | | | | | | | | | |
| | EAPC (2020) | | | | | | | | | | | | | | | | | |
| | - Without Improvements | TS | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1> | 0 | 1 | 0 | 16.2 | 29.6 | B | C |
| | - With Improvements | | Not Applicable | | | | | | | | | | | | | | | |
| | EAPC (2021) | | | | | | | | | | | | | | | | | |
| | - Without Improvements | TS | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1> | 0 | 1 | 0 | 17.4 | 34.1 | B | C |
| | - With Improvements | | Not Applicable | | | | | | | | | | | | | | | |
| | EAPC (2024) | | | | | | | | | | | | | | | | | |
| | - Without Improvements | TS | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1> | 0 | 1 | 0 | 23.4 | **59.9** | C | **E** |
| | - With Improvements | TS | **2** | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1> | 0 | 1 | 0 | 20.8 | 32.2 | C | C |
| 9 | I-15 Southbound Ramps & Nichols Rd. | | | | | | | | | | | | | | | | | |
| | EAPC (2020) | | | | | | | | | | | | | | | | | |
| | - Without Improvements | AWS | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 21.4 | 20.4 | C | C |
| | - With Improvements | | Not Applicable | | | | | | | | | | | | | | | |
| | EAPC (2021) | | | | | | | | | | | | | | | | | |
| | - Without Improvements | AWS | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 30.6 | 34.7 | D | D |
| | - With Improvements | | Not Applicable | | | | | | | | | | | | | | | |
| | EAPC (2024) | | | | | | | | | | | | | | | | | |
| | - Without Improvements | AWS | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | **>100.0** | **>100.0** | **F** | **F** |
| | - With Improvements | **TS** | 0 | 0 | 0 | **1** | 1 | **1** | 0 | 1 | 1 | 1 | 1 | 0 | 25.4 | 15.3 | C | B |
| 10 | I-15 Northbound Ramps & Nichols Rd. | | | | | | | | | | | | | | | | | |
| | EAPC (2020) | | | | | | | | | | | | | | | | | |
| | - Without Improvements | CSS | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | **>100.0** | **>100.0** | **F** | **F** |
| | - With Improvements | **TS** | 0 | 1 | **1** | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 15.9 | 24.3 | B | C |
| | EAPC (2021) | | | | | | | | | | | | | | | | | |
| | - Without Improvements | CSS | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | **>100.0** | **>100.0** | **F** | **F** |
| | - With Improvements | **TS** | 0 | 1 | **1** | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 19.7 | 36.8 | B | D |
| | EAPC (2024) | | | | | | | | | | | | | | | | | |
| | - Without Improvements | CSS | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | **>100.0** | **>100.0** | **F** | **F** |
| | - With Improvements | **TS** | 0 | 1 | **1** | 0 | 0 | 0 | **2** | **2** | 0 | 0 | **2** | 0 | 19.4 | 42.0 | B | D |
| 17 | El Toro Rd. & Tereticornis Av. | | | | | | | | | | | | | | | | | |
| | EAPC (2020) | | | | | | | | | | | | | | | | | |
| | - Without Improvements | CSS | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | **>100.0** | 10.4 | **F** | B |
| | - With Improvements | **AWS** | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | **50.1** | 9.5 | **F** | A |
| | - Without Improvements[7] | CSS | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 22.4 | -- | C | -- |
| | - With Improvements[7] | **AWS** | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 15.0 | -- | B | -- |
| | EAPC (2021) | | | | | | | | | | | | | | | | | |
| | - Without Improvements | CSS | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | **>100.0** | 10.6 | **F** | B |
| | - With Improvements | **AWS** | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | **61.8** | 9.8 | **F** | A |
| | - Without Improvements[7] | CSS | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | **27.3** | -- | **D** | -- |
| | - With Improvements[7] | **AWS** | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 16.1 | -- | C | -- |
| | EAPC (2024) | | | | | | | | | | | | | | | | | |
| | - Without Improvements | CSS | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | **>100.0** | 11.2 | **F** | B |
| | - With Improvements | **AWS** | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | **>100.0** | 11.4 | **F** | B |
| | - Without Improvements[7] | CSS | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | **52.5** | -- | **F** | -- |
| | - With Improvements[7] | **AWS** | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 24.8 | -- | C | -- |

## Table 4.16-40 Intersection Analysis for EAPC Conditions with Improvements (Cont'd)

| # | Intersection | Traffic Control[3] | Intersection Approach Lanes[1] Northbound L | T | R | Southbound L | T | R | Eastbound L | T | R | Westbound L | T | R | Delay[2] (secs.) AM | PM | Level of Service AM | PM |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 18 | El Toro Rd. & Carmela Ct. | | | | | | | | | | | | | | | | | |
| | EAPC (2020) | | | | | | | | | | | | | | | | | |
| | - Without Improvements | CSS | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | **>100.0** | 11.7 | **F** | B |
| | - With Improvements[8] | **AWS** | 0 | 1 | 0 | 0 | 1 | **1** | 0 | 0 | 0 | 0 | 1 | 0 | **73.2** | 9.4 | **F** | A |
| | - Without Improvements[7] | CSS | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | **>100.0** | -- | **F** | -- |
| | - With Improvements[7,8] | **AWS** | 0 | 1 | 0 | 0 | 1 | **1** | 0 | 0 | 0 | 0 | 1 | 0 | 22.2 | -- | C | -- |
| | EAPC (2021) | | | | | | | | | | | | | | | | | |
| | - Without Improvements | CSS | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | **>100.0** | 12.1 | **F** | B |
| | - With Improvements[8] | **AWS** | 0 | 1 | 0 | 0 | 1 | **1** | 0 | 0 | 0 | 0 | 1 | 0 | **84.4** | 9.7 | **F** | A |
| | - Without Improvements[7] | CSS | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | **>100.0** | -- | **F** | -- |
| | - With Improvements[7,8] | **AWS** | 0 | 1 | 0 | 0 | 1 | **1** | 0 | 0 | 0 | 0 | 1 | 0 | 24.5 | -- | C | -- |
| | EAPC (2024) | | | | | | | | | | | | | | | | | |
| | - Without Improvements | CSS | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | **>100.0** | 13.5 | **F** | B |
| | - With Improvements[8,9,11] | **TS** | **1** | 1 | 0 | 0 | 1 | **1** | 0 | 0 | 0 | 0 | 1 | 0 | **58.7** | 5.6 | **E** | A |
| | - Without Improvements[7] | CSS | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | **>100.0** | -- | **F** | -- |
| | - With Improvements[7,8,9,11] | **TS** | **1** | 1 | 0 | 0 | 1 | **1** | 0 | 0 | 0 | 0 | 1 | 0 | 16.8 | -- | B | -- |
| 19 | Dexter Av. & Central Av. (SR-74) | | | | | | | | | | | | | | | | | |
| | EAPC (2020) | | | | | | | | | | | | | | | | | |
| | - Without Improvements | TS | 1 | 1 | 0 | 1 | 1 | 1> | 1 | 3 | 1 | 1 | 4 | 1 | 44.5 | **59.8** | D | **E** |
| | - With Improvements[10] | TS | **0** | **0** | **1** | **0** | **0** | **1** | **0** | 3 | 1 | **0** | 4 | 1 | 21.4 | 9.0 | C | A |
| | EAPC (2021) | | | | | | | | | | | | | | | | | |
| | - Without Improvements | TS | 1 | 1 | 0 | 1 | 1 | 1> | 1 | 3 | 1 | 1 | 4 | 1 | 49.8 | **70.1** | D | **E** |
| | - With Improvements[10] | TS | **0** | **0** | **1** | **0** | **0** | **1** | **0** | 3 | 1 | **0** | 4 | 1 | 21.8 | 23.0 | C | C |
| | EAPC (2024) | | | | | | | | | | | | | | | | | |
| | - Without Improvements | TS | 1 | 1 | 0 | 1 | 1 | 1> | 1 | 3 | 1 | 1 | 4 | 1 | **76.7** | **118.7** | **E** | **F** |
| | - With Improvements[10] | TS | **0** | **0** | **1** | **0** | **0** | **1** | **0** | 3 | 1 | **0** | 4 | 1 | 22.3 | 26.4 | C | C |
| 20 | Cambern Av. & Central Av. (SR-74) | | | | | | | | | | | | | | | | | |
| | EAPC (2020) | | | | | | | | | | | | | | | | | |
| | - Without Improvements | TS | 1 | 1 | 0 | 0 | 1 | 1 | 2 | 2 | 0 | 1 | 2 | 1 | 32.8 | 37.2 | C | D |
| | - With Improvements | | | | | | Not Applicable | | | | | | | | | | | |
| | EAPC (2021) | | | | | | | | | | | | | | | | | |
| | - Without Improvements | TS | 1 | 1 | 0 | 0 | 1 | 1 | 2 | 2 | 0 | 1 | 2 | 1 | 38.8 | 44.5 | D | D |
| | - With Improvements | | | | | | Not Applicable | | | | | | | | | | | |
| | EAPC (2024) | | | | | | | | | | | | | | | | | |
| | - Without Improvements | TS | 1 | 1 | 0 | 0 | 1 | 1 | 2 | 2 | 0 | 1 | 2 | 1 | **68.1** | **77.4** | **E** | **E** |
| | - With Improvements | TS | 1 | 1 | 0 | **2** | 1 | 1 | 2 | **3** | 0 | 1 | **3** | 1 | 40.6 | 49.1 | D | D |

* **BOLD** = LOS does not meet the applicable jurisdictional requirements (i.e., unacceptable LOS).

1 When a right turn is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside the through lanes.

L = Left; T = Through; R = Right; d = Defacto Right Turn Lane; **1** = Improvement

2 Per the Highway Capacity Manual (6th Edition), overall average intersection delay and level of service are shown for intersections with a traffic signal or all way stop control. For intersections with cross street-stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown.

3 CSS = Cross-street Stop; AWS = All-way Stop; TS = Traffic Signal; **CSS** = Improvement

4 Improvement consists of restriping the existing westbound right turn lane to a shared through-right lane.

5 Eastbound and westbound left turn lanes are currently under construction and are anticipated to be in place by summer 2018. However, the intersection is anticipated to continue to operate at an unacceptable LOS without the installation of a traffic signal.

6 Although the intersection is not anticipated to warrant a traffic signal under Existing and EAP conditions, the addition of lane geometric improvements alone is not anticipated to improve the peak hour delays. As such, the intersection should be monitored and a traffic signal should be installed at the City Traffic Engineer's discretion.

7 A normalized AM PHF of 0.92 is used to determine peak hour operations outside of the 10-15 minute drop-off period.

8 Prohibit on-street parking to allow restriping for a 100 foot southbound right turn pocket.

9 Prohibit on-street parking to allow restriping for a 100 foot northbound left turn pocket.

10 Improvements are consistent with the ultimate buildout design of the I-15/SR-74 interchange and will be completed with the construction of the new I-15/SR-74 interchange.

11 The installation of a traffic signal may not be appropriate for the character of the surrounding residential neighborhood. As such, it is recommended that a traffic guard be utilized during the AM peak hour only to direct traffic similar to the way a signalized intersection would operate.

(Urban Crossroads, 2018c, Table 9-5)

As indicated in Table 4.16-40, although with implementation of Mitigation Measure MM 4.16-5 the intersection of El Toro Rd. at Tereticornis Av. (#17) would continue to operate at LOS F during the AM peak hour based on raw count data, when the normalized peak hour factor is considered this intersection would improve from LOS C to LOS B during the AM peak hour under Phase 1 conditions, and Project impacts at this intersection would be reduced to less-than-significant levels.

### *Traffic Signal Warrants – EAP 2020 and EAPC 2020*

As shown in Table 4.16-40, installation of a traffic signal at the intersection of I-15 Northbound Ramps at Nichols Rd. (#10) in conjunction with the remaining improvements identified in Table 4.16-40 would improve the LOS at this intersection from LOS F during both peak hours to LOS B during the AM peak hour and LOS C during the PM peak hour under EAP (2020) and EAPC (2020). The installation of a traffic signal at this location is identified as an improvement under the City's TIF program; however, the timing of the required improvements cannot be assured. Therefore, Project impacts to this intersection due to signal warrants would be cumulatively-considerable and unavoidable in the near term until the required improvements are in place.

Although the intersection of El Toro Road at Carmela Court (#18) meets traffic signal warrants under EAP (2020) and EAPC (2020) conditions, implementation of Mitigation Measure MM 4.16-6, which requires a fair-share contribution to convert this intersection to an all-way stop (AWS) in conjunction with other improvements would improve the LOS at this intersection acceptable levels; thus, a traffic signal would not be warranted under EAP (2020) or EAPC (2020) conditions with implementation of the required improvements. However, because the Project would only contribute a fair share towards the cost of the identified improvements, it cannot be assured that the improvements would be in place at the time of occupancy of Phase 1 of the proposed Project; thus, Project impacts to this intersection due to signal warrants would be cumulatively-considerable and unavoidable under near-term conditions prior to implementation of the required improvements.

### *Off-Ramp Queuing – EAP 2020 and EAPC 2020*

Impacts due to off-ramp queuing issues were determined to be less than significant under EAP (2020) and EAPC (2020) conditions.

### *Freeway Segments – EAP 2020 and EAPC 2020*

The Project would result in cumulatively-considerable impacts to the following freeway segments during EAP (2020) and/or EAPC (2020) conditions:

- I-15 Freeway Southbound, North of Nichols Road (#1) – LOS E PM peak hour only
- I-15 Freeway Southbound, South of Nichols Road (#2) – LOS E PM peak hour only

At this time, Caltrans has no fee programs or other improvement programs in place to address the deficiencies caused by development projects in the City of Lake Elsinore (or other neighboring jurisdictions) on the State Highway System (SHS) roadway segments. Therefore, the Project's cumulatively-considerable impact to the above-listed freeway segments would be significant and unavoidable under EAP (2020) and EAPC (2020) conditions.

### *Freeway Merge/Diverge Locations – EAP 2020 and EAPC 2020*

The following freeway merge/diverge location was shown to operate at a deficient LOS under both EAP (2020) and EAPC (2020) conditions:

- I-15 Freeway Southbound, Off-Ramp at Nichols Road (#1) – LOS E PM peak hour only

At this time, Caltrans has no fee programs or other improvement programs in place to address the deficiencies caused by development projects in the City of Lake Elsinore (or other neighboring jurisdictions) on the State Highway System (SHS) roadway segments. Therefore, the Project's cumulatively-considerable impact to the above-listed freeway merge/diverge location would be significant and unavoidable under EAP (2020) and EAPC (2020) conditions.

## ❑ Phase 2 Conditions (EAP 2021 and EAPC 2021)

### *Intersections – EAP 2021 and EAPC 2021*

As shown in Table 4.16-41, *Intersection Analysis for EAP (2021) Conditions with Improvements*, and previously shown on Table 4.16-40, improvements identified as part of TIF would improve the LOS at the following intersections to acceptable levels under EAP (2021) and EAPC (2021) conditions. Although the Project Applicant would be required to contribute appropriate TIF fees, it cannot be assured that the required improvements would be in place prior to occupancy of Phase 2 of the proposed Project; therefore, Project impacts to the following intersections would represent near-term cumulatively-considerable and unavoidable impacts of the proposed Project for Phase 2 conditions prior to implementation of the required improvements:

- I-15 Northbound Ramps at Nichols Rd. (#10)
- Dexter Av. at Central Av. (SR-74) (#19)

As shown in Table 4.16-40, implementation of the improvements listed in Mitigation Measures MM 4.16-7 through MM 4.16-10 would improve the LOS at the following intersections to acceptable levels under EAP (2021) and/or EAPC (2021) conditions. However, because the mitigation requires payment of a fair share towards the cost of the improvements, it cannot be assured that the required improvements would be in place at the time of Phase 2 occupancy; therefore, near-term Project impacts to the following intersections would be cumulatively considerable and unavoidable until the required improvements are in place:

- Lake St. at Nichols Rd. (#1)
- Gunnerson St./Strickland Av. at Riverside Drive (SR-74) (#5)
- Collier Av. at Nichols Rd. (#6)
- El Toro Rd. at Carmela Ct. (#18)

As indicated in Table 4.16-40, although with implementation of Mitigation Measure MM 4.16-5 the intersection of El Toro Rd. at Tereticornis Av. (#17) would continue to operate at LOS F during the AM peak

## Table 4.16-41 Intersection Analysis for EAP (2021) Conditions with Improvements

| # | Intersection | Traffic Control[3] | Intersection Approach Lanes[1] Northbound L | T | R | Southbound L | T | R | Eastbound L | T | R | Westbound L | T | R | Delay[2] (secs.) AM | PM | Level of Service AM | PM |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 5 | Gunnerson St./Strickland Av. & Riverside Dr. (SR-74) | | | | | | | | | | | | | | | | | |
| | EA (2021) | | | | | | | | | | | | | | | | | |
| | - Without Improvements | CSS | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | **>100.0** | **>100.0** | **F** | **F** |
| | - With Improvements[4,5] | **TS** | 0 | 1 | 1 | 0 | 1 | 1 | **1** | 1 | 0 | **1** | 1 | 0 | 9.1 | 9.1 | A | A |
| | EAP (2021) | | | | | | | | | | | | | | | | | |
| | - Without Improvements | CSS | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | **>100.0** | **>100.0** | **F** | **F** |
| | - With Improvements[4,5] | **TS** | 0 | 1 | 1 | 0 | 1 | 1 | **1** | 1 | 0 | **1** | 1 | 0 | 9.2 | 9.1 | A | A |
| 6 | Collier Av. & Nichols Rd. | | | | | | | | | | | | | | | | | |
| | EA (2021) | | | | | | | | | | | | | | | | | |
| | - Without Improvements | CSS | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 22.4 | 34.0 | C | D |
| | - With Improvements | | Not Applicable | | | | | | | | | | | | | | | |
| | EAP (2021) | | | | | | | | | | | | | | | | | |
| | - Without Improvements | CSS | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 24.3 | **37.3** | C | **E** |
| | - With Improvements | **AWS** | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 18.0 | 16.5 | C | C |
| 10 | I-15 Northbound Ramps & Nichols Rd. | | | | | | | | | | | | | | | | | |
| | EA (2021) | | | | | | | | | | | | | | | | | |
| | - Without Improvements | CSS | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | **>100.0** | **66.3** | **F** | **F** |
| | - With Improvements | **TS** | 0 | 1 | **1** | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 14.1 | 18.4 | B | B |
| | EAP (2021) | | | | | | | | | | | | | | | | | |
| | - Without Improvements | CSS | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | **>100.0** | **66.3** | **F** | **F** |
| | - With Improvements | **TS** | 0 | 1 | **1** | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 15.6 | 20.2 | B | C |
| 17 | El Toro Rd. & Tereticornis Av. | | | | | | | | | | | | | | | | | |
| | EA (2021) | | | | | | | | | | | | | | | | | |
| | - Without Improvements | CSS | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | **>100.0** | 10.4 | **F** | B |
| | - With Improvements | **AWS** | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | **53.4** | 9.5 | **F** | A |
| | - Without Improvements[6] | CSS | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | **25.8** | -- | **D** | -- |
| | - With Improvements[6] | **AWS** | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 15.4 | -- | C | -- |
| | EAP (2021) | | | | | | | | | | | | | | | | | |
| | - Without Improvements | CSS | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | **>100.0** | 10.5 | **F** | B |
| | - With Improvements | **AWS** | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | **61.0** | 9.7 | **F** | A |
| | - Without Improvements[6] | CSS | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | **27.0** | -- | **D** | -- |
| | - With Improvements[6] | **AWS** | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 16.0 | -- | C | -- |
| 18 | El Toro Rd. & Carmela Ct. | | | | | | | | | | | | | | | | | |
| | EA (2021) | | | | | | | | | | | | | | | | | |
| | - Without Improvements | CSS | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | **>100.0** | 11.7 | **F** | B |
| | - With Improvements[7] | **AWS** | 0 | 1 | 0 | 0 | 1 | **1** | 0 | 1 | 0 | 0 | 1 | 0 | **77.5** | 9.4 | **F** | A |
| | - Without Improvements[6] | CSS | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | **>100.0** | -- | **F** | -- |
| | - With Improvements[6,7] | **AWS** | 0 | 1 | 0 | 0 | 1 | **1** | 0 | 1 | 0 | 0 | 1 | 0 | 23.2 | -- | C | -- |
| | EAP (2021) | | | | | | | | | | | | | | | | | |
| | - Without Improvements | CSS | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | **>100.0** | 12.0 | **F** | B |
| | - With Improvements[7] | **AWS** | 0 | 1 | 0 | 0 | 1 | **1** | 0 | 0 | 0 | 0 | 1 | 0 | **83.7** | 9.6 | **F** | A |
| | - Without Improvements[6] | CSS | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | **>100.0** | -- | **F** | -- |
| | - With Improvements[6,7] | **AWS** | 0 | 1 | 0 | 0 | 1 | **1** | 0 | 0 | 0 | 0 | 1 | 0 | 24.4 | -- | C | -- |

* **BOLD** = LOS does not meet the applicable jurisdictional requirements (i.e., unacceptable LOS).

1 When a right turn is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside the through lanes.

L = Left; T = Through; R = Right; d = Defacto Right Turn Lane; **1** = Improvement

2 Per the Highway Capacity Manual (6th Edition), overall average intersection delay and level of service are shown for intersections with a traffic signal or all way stop control. For intersections with cross street-stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown.

3 CSS = Cross-street Stop; AWS = All-way Stop; TS = Traffic Signal; **CSS** = Improvement

4 Eastbound and westbound left turn lanes are currently under construction and are anticipated to be in place by summer 2018. However, the intersection is anticipated to continue to operate at an unacceptable LOS without the installation of a traffic signal.

5 Although the intersection is not anticipated to warrant a traffic signal under Existing and EAP conditions, the addition of lane geometric improvements alone is not anticipated to improve the peak hour delays. As such, the intersection should be monitored and a traffic signal should be installed at the City Traffic Engineer's discretion.

6 A normalized AM PHF of 0.92 is used to determine peak hour operations outside of the 10-15 minute drop-off period.

7 Prohibit on-street parking to allow restriping for a 100 foot southbound right turn pocket.

(Urban Crossroads, 2018c, Table 7-5)

hour based on raw count data under Phase 2 conditions, when the normalized peak hour factor is considered this intersection would improve from LOS D to LOS C during the AM peak hour, and Project impacts at this intersection would be reduced to less-than-significant levels.

### *Traffic Signal Warrants – EAP 2021 and EAPC 2021*

As shown in Table 4.16-41 and Table 4.16-40, installation of a traffic signal at the following locations would improve the LOS at these intersections to acceptable levels. The installation of traffic signals at these locations are planned improvements under the City's TIF program. The Project would be required to contribute TIF fees, and would contribute a fair share towards the cost of installation of the traffic signal at Collier Av. at Nichols Road; however, it cannot be assured that the traffic signals would be in place at the time of Phase 2 occupancy (2021). Therefore, near-term Project impacts to the following intersections would remain cumulatively-considerable and unavoidable until the required improvements are in place.

- Collier Av. at Nichols Rd. (#6)
- I-15 Northbound Ramps at Nichols Rd. (#10)

Although the intersection of El Toro Road at Carmela Court (#18) meets traffic signal warrants under EAP (2021) and EAPC (2021) conditions, implementation of Mitigation Measure MM 4.16-6, which requires in part the conversion of this intersection to an all-way stop in addition to other improvements, would improve the LOS at this intersection to acceptable levels; thus, a traffic signal would not be warranted under EAP (2021) or EAPC (2021) conditions with implementation of the required improvements. However, the mitigation requires payment of a fair share towards the cost of the required improvements; thus, it cannot be assured that the improvements would be in place at the time of occupancy of Phase 2 of the proposed Project. Accordingly, near-term Project impacts due to the need to signalize this intersection would be cumulatively considerable and unavoidable under EAP and EAPC 2021 conditions prior to implementation of the required improvements.

### *Off-Ramp Queuing – EAP 2021 and EAPC 2021*

Impacts due to off-ramp queuing issues were determined to be less than significant under EAP (2021) and EAPC (2021) conditions.

### *Freeway Segments – EAP 2021 and EAPC 2021*

The Project would result in cumulatively-considerable impacts to the following freeway segments during EAP (2021) and EAPC (2021) conditions:

- I-15 Freeway Southbound, North of Nichols Road (#1) – LOS E PM peak hour only
- I-15 Freeway Southbound, South of Nichols Road (#2) – LOS E PM peak hour only

At this time, Caltrans has no fee programs or other improvement programs in place to address the deficiencies caused by development projects in the City of Lake Elsinore (or other neighboring jurisdictions) on the State Highway System (SHS) roadway segments. Therefore, the Project's cumulatively-considerable impact to the above-listed freeway segments would be significant and unavoidable under EAP (2021) and EAPC (2021) conditions.

### *Freeway Merge/Diverge Locations – EAP 2021 and EAPC 2021*

The Project would result in cumulatively-considerable impacts at the following freeway merge/diverge locations under EAP (2021) and EAPC (2021) conditions:

- I-15 Freeway Southbound, Off-Ramp at Nichols Road (#1) – LOS E PM peak hour only

At this time, Caltrans has no fee programs or other improvement programs in place to address the deficiencies caused by development projects in the City of Lake Elsinore (or other neighboring jurisdictions) on the State Highway System (SHS) roadway segments. Therefore, the Project's cumulatively-considerable impact to the above-listed freeway merge/diverge location would be significant and unavoidable under EAP (2021) and EAPC (2021) conditions.

## ❑ Phase 3 Conditions (EAP 2024 and EAPC 2024)

### *Intersections – EAP 2024 and EAPC 2024*

As shown in Table 4.16-42, *Intersection Analysis for EAP (2024) Conditions with Improvements*, and previously shown on Table 4.16-40, implementation of Mitigation Measures MM 4.16-13 and MM 4.16-16 would improve the LOS at the following intersections to acceptable LOS under EAP (2024) and EAPC (2024) conditions. Thus, implementation of the required mitigation would reduce the Project's impacts to less-than-significant levels at the following locations:

- Lakeshore Dr. at Riverside Dr. (SR-74) (#4)
- I-15 Southbound Ramps at Nichols Rd. (#9)

As also shown in Table 4.16-42, and previously shown on Table 4.16-40, improvements identified as part of TIF and/or TUMF would improve the LOS at the following intersections to acceptable levels under EAP (2024) and EAPC (2024) conditions. Although the Project Applicant would be required to contribute appropriate TIF and TUMF fees, it cannot be assured that the required improvements would be in place prior to occupancy of Phase 3 (Project buildout); therefore, Project impacts to the following intersections would represent near-term cumulatively-considerable and unavoidable impacts of the proposed Project for Phase 3 (buildout) conditions prior to implementation of the required improvements:

- Collier Av. at Riverside Dr. (SR-74) (#7)
- I-15 Northbound Ramps at Nichols Rd. (#10)
- Dexter Av. at Central Av. (SR-74) (#19)
- Cambern Av. at Central Av. (SR-74) (#20)

As shown in Table 4.16-40, implementation of the improvements listed in Mitigation Measures MM 4.16-11 through MM 4.16-17 would improve the LOS at the following intersections to acceptable levels under EAP (2024) and/or EAPC (2024) conditions. However, the mitigation requires payment of a fair share towards the cost of the required improvements; thus, it cannot be assured that the improvements would be in place at the

## Table 4.16-42 Intersection Analysis for EAP (2024) Conditions with Improvements

| # | Intersection | Traffic Control[3] | Intersection Approach Lanes[1] | | | | | | | | | | | | Delay[2] (secs.) | | Level of Service | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Northbound | | | Southbound | | | Eastbound | | | Westbound | | | | | | |
| | | | L | T | R | L | T | R | L | T | R | L | T | R | AM | PM | AM | PM |
| 4 | Lakeshore Dr. & Riverside Dr. (SR-74) | | | | | | | | | | | | | | | | | |
| | EA (2024) | | | | | | | | | | | | | | | | | |
| | - Without Improvements | TS | 1 | 2 | 0 | 1 | 2 | 1 | 1 | 2 | 1 | 1 | 1 | 1 | **55.2** | 51.6 | **E** | D |
| | - With Improvements | TS | 1 | 2 | 0 | 1 | 2 | 1 | 1 | 2 | 1 | 1 | **2** | **0** | 44.7 | 41.8 | D | D |
| | EAP (2024) | | | | | | | | | | | | | | | | | |
| | - Without Improvements | TS | 1 | 2 | 0 | 1 | 2 | 1 | 1 | 2 | 1 | 1 | 1 | 1 | **56.4** | 53.3 | **E** | D |
| | - With Improvements[4] | TS | 1 | 2 | 0 | 1 | 2 | 1 | 1 | 2 | 1 | 1 | **2** | **0** | 46.0 | 43.4 | D | D |
| 5 | Gunnerson St./Strickland Av. & Riverside Dr. (SR-74) | | | | | | | | | | | | | | | | | |
| | EA (2024) | | | | | | | | | | | | | | | | | |
| | - Without Improvements | CSS | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | **>100.0** | **>100.0** | **F** | **F** |
| | - With Improvements[5,6] | **TS** | 0 | 1 | 1 | 0 | 1 | 1 | **1** | 1 | 0 | **1** | 1 | 0 | 9.1 | 9.1 | A | A |
| | EAP (2024) | | | | | | | | | | | | | | | | | |
| | - Without Improvements | CSS | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | **>100.0** | **>100.0** | **F** | **F** |
| | - With Improvements[5,6] | **TS** | 0 | 1 | 1 | 0 | 1 | 1 | **1** | 1 | 0 | **1** | 1 | 0 | 9.3 | 9.5 | A | A |
| 6 | Collier Av. & Nichols Rd. | | | | | | | | | | | | | | | | | |
| | EA (2024) | | | | | | | | | | | | | | | | | |
| | - Without Improvements | CSS | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 24.8 | **41.4** | C | **E** |
| | - With Improvements | **TS** | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 9.9 | 12.1 | A | B |
| | EAP (2024) | | | | | | | | | | | | | | | | | |
| | - Without Improvements | CSS | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | **47.2** | **94.2** | **E** | **F** |
| | - With Improvements | **TS** | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 11.3 | 19.4 | B | B |
| 9 | I-15 Southbound Ramps & Nichols Rd. | | | | | | | | | | | | | | | | | |
| | EA (2024) | | | | | | | | | | | | | | | | | |
| | - Without Improvements | AWS | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 19.1 | 16.0 | C | C |
| | - With Improvements | | Not Applicable | | | | | | | | | | | | | | | |
| | EAP (2024) | | | | | | | | | | | | | | | | | |
| | - Without Improvements | AWS | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | **68.4** | **37.2** | **F** | **E** |
| | - With Improvements | **TS** | 0 | 0 | 0 | **1** | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 20.5 | 20.2 | C | C |
| 10 | I-15 Northbound Ramps & Nichols Rd. | | | | | | | | | | | | | | | | | |
| | EA (2024) | | | | | | | | | | | | | | | | | |
| | - Without Improvements | CSS | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | **>100.0** | **52.6** | **F** | **F** |
| | - With Improvements | **TS** | 0 | 1 | **1** | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 14.6 | 20.6 | B | C |
| | EAP (2024) | | | | | | | | | | | | | | | | | |
| | - Without Improvements | CSS | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | **>100.0** | **>100.0** | **F** | **F** |
| | - With Improvements | **TS** | 0 | 1 | **1** | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 36.5 | 42.7 | D | D |
| 17 | El Toro Rd. & Tereticornis Av. | | | | | | | | | | | | | | | | | |
| | EA (2024) | | | | | | | | | | | | | | | | | |
| | - Without Improvements | CSS | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | **>100.0** | 10.6 | **F** | B |
| | - With Improvements | **AWS** | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | **73.7** | 9.8 | **F** | A |
| | - Without Improvements[7] | CSS | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 29.5 | -- | D | -- |
| | - With Improvements[7] | | Not Applicable | | | | | | | | | | | | | | | |
| | EAP (2024) | | | | | | | | | | | | | | | | | |
| | - Without Improvements | CSS | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | **>100.0** | 11.1 | **F** | B |
| | - With Improvements | **AWS** | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | **121.3** | 11.3 | **F** | B |
| | - Without Improvements[7] | CSS | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | **51.2** | -- | **F** | -- |
| | - With Improvements[7] | **AWS** | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 24.5 | -- | C | -- |

## Table 4.16-42 Intersection Analysis for EAP (2024) Conditions with Improvements (Cont'd)

| # | Intersection | Traffic Control[3] | Intersection Approach Lanes[1] | | | | | | | | | | | | Delay[2] (secs.) | | Level of Service | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Northbound | | | Southbound | | | Eastbound | | | Westbound | | | | | | |
| | | | L | T | R | L | T | R | L | T | R | L | T | R | AM | PM | AM | PM |
| 18 | El Toro Rd. & Carmela Ct. | | | | | | | | | | | | | | | | | |
| | EA (2024) | | | | | | | | | | | | | | | | | |
| | - Without Improvements | CSS | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | **>100.0** | 12.1 | **F** | B |
| | - With Improvements[8,9,10] | **TS** | 0 | 1 | 0 | 0 | 1 | **1** | 0 | 1 | 0 | 0 | 1 | 0 | 49.7 | 5.4 | D | A |
| | - Without Improvements[7] | CSS | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | **>100.0** | -- | **F** | -- |
| | - With Improvements[7,8,9,10] | **TS** | 0 | 1 | 0 | 0 | 1 | **1** | 0 | 1 | 0 | 0 | 1 | 0 | 15.1 | -- | B | -- |
| | EAP (2024) | | | | | | | | | | | | | | | | | |
| | - Without Improvements | CSS | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | **>100.0** | 13.4 | **F** | B |
| | - With Improvements[8,9,10] | **TS** | **1** | 1 | 0 | 0 | 1 | **1** | 0 | 0 | 0 | 0 | 1 | 0 | **57.9** | 5.6 | **E** | A |
| | - Without Improvements[7] | CSS | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | **>100.0** | -- | **F** | -- |
| | - With Improvements[7,8,9,10] | **TS** | **1** | 1 | 0 | 0 | 1 | **1** | 0 | 0 | 0 | 0 | 1 | 0 | 16.7 | 5.6 | B | A |

* **BOLD** = LOS does not meet the applicable jurisdictional requirements (i.e., unacceptable LOS).

1 When a right turn is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside the through lanes.

L = Left; T = Through; R = Right; d = Defacto Right Turn Lane; **1** = Improvement

2 Per the Highway Capacity Manual (6th Edition), overall average intersection delay and level of service are shown for intersections with a traffic signal or all way stop control. For intersections with cross street-stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown.

3 CSS = Cross-street Stop; AWS = All-way Stop; TS = Traffic Signal; **CSS** = Improvement

4 Improvement consists of restriping the existing westbound right turn lane to a shared through-right lane.

5 Eastbound and westbound left turn lanes are currently under construction and are anticipated to be in place by summer 2018. However, the intersection is anticipated to continue to operate at an unacceptable LOS without the installation of a traffic signal.

6 Although the intersection is not anticipated to warrant a traffic signal under Existing and EAP conditions, the addition of lane geometric improvements alone is not anticipated to improve the peak hour delays. As such, the intersection should be monitored and a traffic signal should be installed at the City Traffic Engineer's discretion.

7 A normalized AM PHF of 0.92 is used to determine peak hour operations outside of the 10-15 minute drop-off period.

8 Prohibit on-street parking to allow restriping for a 100 foot southbound right turn pocket.

9 Prohibit on-street parking to allow restriping for a 100 foot northbound left turn pocket.

10 The installation of a traffic signal may not be appropriate for the character of the surrounding residential neighborhood. As such, it is recommended that a traffic guard be utilized during the AM peak hour only to direct traffic similar to the way a signalized intersection would operate.

(Urban Crossroads, 2018c, Table 8-5)

time of occupancy of Phase 3 (buildout) of the proposed Project. Accordingly, near-term Project impacts to the following intersections would be cumulatively considerable and unavoidable under near-term conditions prior to implementation of the required improvements:

- Lake St. at Nichols Rd. (#1)
- Alberhill Ranch Rd. at Nichols Rd. (#3)
- Gunnerson St./Strickland Av. at Riverside Drive (SR-74) (#5)
- Collier Av. at Nichols Rd. (#6)
- El Toro Rd. at Carmela Ct. (#18)

As indicated in Table 4.16-42, although with implementation of Mitigation Measure MM 4.16-5 the intersection of El Toro Rd. at Tereticornis Av. (#17) would continue to operate at LOS F during the AM peak hour based on raw count data under Phase 2 conditions, when the normalized peak hour factor is considered this intersection would improve from LOS F to LOS C during the AM peak hour, and Project impacts at this intersection would be reduced to less-than-significant levels.

### *Traffic Signal Warrants – EAP 2024 and EAPC 2024*

As shown in Table 4.16-42 and Table 4.16-40, installation of a traffic signal at the following location, as required by Mitigation Measure MM 4.16-16, in conjunction with other improvements identified for this intersection above would improve the LOS to acceptable levels. Thus, implementation of the required mitigation would reduce Project impacts to the following intersection to less-than-significant levels.

- I-15 Southbound Ramps at Nichols Rd. (#9)

As required by Mitigation Measure MM 4.16-12, the Project Applicant would be required to contribute a fair share towards the costs of installing a traffic signal at the intersection of Alberhill Ranch Road and Nichols Road (#3). As shown in Table 4.16-40, installation of a traffic signal at this location would improve the LOS from LOS F during both peak hours to LOS D during both peak hours. However, it cannot be assured that the required improvement will be in place by the time Phase 3 of the Project is built-out and occupied. Therefore, Project impacts to the intersection of Alberhill Ranch Road and Nichols Road (#3) would be cumulatively considerable and unavoidable in the near-term under EAPC (2024) conditions until the required improvement is in place.

As shown in Table 4.16-42 and Table 4.16-40, installation of traffic signals at the following locations in conjunction with other improvements identified for these intersections above would improve the LOS to acceptable levels. The installation of traffic signals at the following locations are programmed improvements under the City's TIF program, and the Project additionally would be required to contribute a fair share towards the cost of installing a traffic signal at the intersection of Collier Av. at Nichols Rd. (#6). However, because it cannot be assured that traffic signals would be installed at the following locations prior to Phase 3 (buildout) occupancy of the proposed Project, near-term Project impacts to the following intersections would be cumulatively-considerable and unavoidable:

- Collier Av. at Nichols Rd. (#6)
- I-15 Northbound Ramps at Nichols Rd. (#10)

As shown in Table 4.16-42 and Table 4.16-40, installation of a traffic signal at the following location in conjunction with other improvements identified for this intersection (refer to Mitigation Measure MM 4.16-17) would improve the LOS to acceptable levels. However, because the Project would only make a fair-share contribution towards the required improvements, it cannot be assured that the traffic signal would be installed prior to occupancy of Phase 3 (Project buildout). Therefore, near-term impacts to the following intersection would be cumulatively considerable and unavoidable due to the need for signalization under EAP (2024) and EAPC (2024) conditions:

- El Toro Road & Carmela Court (#18)

### *Off-Ramp Queuing – EAP 2024 and EAPC 2024*

Under EAPC (2024) conditions, the following movements are anticipated to experience queuing issues during the weekday AM or weekday PM peak 95th percentile traffic flows for EAPC (2024) traffic conditions:

- I-15 Freeway Southbound Off-ramp at Nichols Road (#1): Shared southbound left-through-right turn lane during the AM peak hour only
- I-15 Freeway Northbound Off-ramp at Nichols Road (#2): Shared northbound left-through-right turn lane during the AM peak hour only

The Project would directly impact the I-15 Freeway Northbound Off-ramp at Nichols Road (#2), while impacts at the I-15 Freeway Southbound Off-ramp at Nichols Road (#1) would be cumulatively considerable. At this time, Caltrans has no fee programs or other improvement programs in place to address the deficiencies caused by development projects in the City of Lake Elsinore (or other neighboring jurisdictions) on the State Highway System (SHS) roadway segments. Therefore, the Project's direct impact to the I-15 Freeway Northbound Off-ramp at Nichols Road (#2) under EAP (2024) and EAPC (2024) conditions and the Project's cumulatively-considerable impact to the I-15 Freeway Southbound Off-ramp at Nichols Road (#1) under EAPC (2024) conditions represent significant and unavoidable impacts of the proposed Project.

### *Freeway Segments – EAP 2024 and EAPC 2024*

The Project would result in cumulatively-considerable impacts to the following freeway segments during EAP (2024) and EAPC (2024) conditions:

- I-15 Freeway Southbound, North of Nichols Road (#1) – LOS E PM peak hour only
- I-15 Freeway Southbound, South of Nichols Road (#2) – LOS E PM peak hour only

At this time, Caltrans has no fee programs or other improvement programs in place to address the deficiencies caused by development projects in the City of Lake Elsinore (or other neighboring jurisdictions) on the State Highway System (SHS) roadway segments. Therefore, the Project's cumulatively-considerable impact to the above-listed freeway segments would be significant and unavoidable under EAP (2024) and EAPC (2024) conditions.

### *Freeway Merge/Diverge Locations – EAP 2024 and EAPC 2024*

The Project would result in cumulatively-considerable impacts at the following freeway merge/diverge locations under EAP (2024) and/or EAPC (2024) conditions:

- I-15 Freeway Southbound, Off-Ramp at Nichols Road (#1) – LOS E PM peak hour only
- I-15 Freeway Southbound, On-Ramp at Nichols Road (#2) – LOS E PM peak hour only

At this time, Caltrans has no fee programs or other improvement programs in place to address the deficiencies caused by development projects in the City of Lake Elsinore (or other neighboring jurisdictions) on the State Highway System (SHS) roadway segments. Therefore, the Project's cumulatively-considerable impact to the above-listed freeway merge/diverge locations would be significant and unavoidable under EAP (2024) and EAPC (2024) conditions.

**Threshold b.: Significant and Unavoidable Direct and Cumulatively-Considerable Impacts.** As indicated under the discussion and analysis of Threshold a., implementation of each phase of the proposed Project would result in impacts to CMP facilities, including CMP intersections, CMP traffic signal warrants, CMP off-ramp queuing locations, CMP freeway segments, and CMP freeway merge/diverge locations. A summary of the Project's significant and unavoidable impacts to CMP facilities is provided below and the Project's impacts were previously shown in Table 4.16-35 through Table 4.16-38.

## ❑ EAP (2020) and EAPC (2020) Conditions

### *CMP Intersection Impacts – EAP (2020) and EAPC (2020) Conditions*

The Project would result in cumulatively-considerable and unavoidable impacts to the following CMP intersections under EAP (2020) and/or EAPC (2020) conditions:

- Gunnerson St./Strickland Av. at Riverside Drive (SR-74) (#5)
- I-15 Northbound Ramps at Nichols Rd. (#10)
- Dexter Av. at Central Av. (SR-74) (#19)

### *CMP Traffic Signal Warrants Impacts – EAP (2020) and EAPC (2020) Conditions*

The Project would result in a cumulatively-considerable and unavoidable impact due to the need to signalize the following CMP intersection under EAP (2020) and/or EAPC (2020) conditions:

- I-15 Northbound Ramps at Nichols Rd. (#10)

### *CMP Off-Ramp Queuing Impacts – EAP (2020) and EAPC (2020) Conditions*

Impacts to off-ramp queuing locations were shown to be less than significant prior to mitigation under EAP (2020) and EAPC (2020) conditions.

### *CMP Freeway Segment Impacts – EAP (2020) and EAPC (2020) Conditions*

The Project would result in cumulatively-considerable and unavoidable impacts to the following freeway segments under EAP (2020) and/or EAPC (2020) conditions:

- I-15 Freeway Southbound, North of Nichols Road (#1) – LOS E PM peak hour only
- I-15 Freeway Southbound, South of Nichols Road (#2) – LOS E PM peak hour only

### *CMP Freeway Merge/Diverge Impacts – EAP (2020) and EAPC (2020) Conditions*

The Project would result in a cumulatively-considerable and unavoidable impact to the following freeway merge/diverge location under EAP (2020) and/or EAPC (2020) conditions:

- I-15 Freeway Southbound, Off-Ramp at Nichols Road (#1) – LOS E PM peak hour only

## ❑ EAP (2021) and EAPC (2021) Conditions

### *CMP Intersection Impacts – EAP (2021) and EAPC (2021) Conditions*

The Project would result in cumulatively-considerable and unavoidable impacts to the following CMP intersections under EAP (2021) and/or EAPC (2021) conditions:

- Gunnerson St./Strickland Av. at Riverside Drive (SR-74) (#5)
- I-15 Northbound Ramps at Nichols Rd. (#10)
- Dexter Av. at Central Av. (SR-74) (#19)

### *CMP Traffic Signal Warrants Impacts – EAP (2021) and EAPC (2021) Conditions*

The Project would result in a cumulatively-considerable and unavoidable impact due to the need to signalize the following CMP intersection under EAP (2021) and/or EAPC (2021) conditions:

- I-15 Northbound Ramps at Nichols Rd. (#10)

### *CMP Off-Ramp Queuing Impacts – EAP (2021) and EAPC (2021) Conditions*

Impacts to off-ramp queuing locations were shown to be less than significant prior to mitigation under EAP (2021) and EAPC (2021) conditions.

### *CMP Freeway Segment Impacts – EAP (2021) and EAPC (2021) Conditions*

The Project would result in cumulatively-considerable and unavoidable impacts to the following freeway segments under EAP (2021) and/or EAPC (2021) conditions:

- I-15 Freeway Southbound, North of Nichols Road (#1) – LOS E PM peak hour only
- I-15 Freeway Southbound, South of Nichols Road (#2) – LOS E PM peak hour only

### *CMP Freeway Merge/Diverge Impacts – EAP (2021) and EAPC (2021) Conditions*

The Project would result in a cumulatively-considerable and unavoidable impact to the following freeway merge/diverge location under EAP (2021) and/or EAPC (2021) conditions:

- I-15 Freeway Southbound, Off-Ramp at Nichols Road (#1) – LOS E PM peak hour only

## ❑ EAP (2024) and EAPC (2024) Conditions

### *CMP Intersection Impacts – EAP (2024) and EAPC (2024) Conditions*

The Project would result in direct and/or cumulatively-considerable and unavoidable impacts to the following CMP intersections under EAP (2024) and/or EAPC (2024) conditions:

- Gunnerson St./Strickland Av. at Riverside Drive (SR-74) (#5) (Cumulatively-Considerable Impact)
- Collier Av. at Riverside Dr. (SR-74) (#7) (Cumulatively-Considerable Impact)

- I-15 Northbound Ramps at Nichols Rd. (#10) (Cumulatively-Considerable Impact)
- Dexter Av. at Central Av. (SR-74) (#19) (Cumulatively-Considerable Impact)
- Cambern Av. at Central Av. (SR-74) (#20) (Cumulatively-Considerable Impact)

### *CMP Traffic Signal Warrants Impacts – EAP (2024) and EAPC (2024) Conditions*

The Project would result in a cumulatively-considerable and unavoidable impact due to the need to signalize the following CMP intersection under EAP (2024) and/or EAPC (2024) conditions:

- I-15 Northbound Ramps at Nichols Rd. (#10)

### *CMP Off-Ramp Queuing Impacts – EAP (2024) and EAPC (2024) Conditions*

The Project would result in direct and/or cumulatively-considerable and unavoidable impacts to the following CMP off-ramp queuing locations under EAP (2024) and/or EAPC (2024) conditions:

- I-15 Freeway Southbound Off-ramp at Nichols Road (#1): Shared southbound left-through-right turn lane during the AM peak hour only (Cumulatively-Considerable Impact)
- I-15 Freeway Northbound Off-ramp at Nichols Road (#2): Shared northbound left-through-right turn lane during the AM peak hour only (Direct Impact)

### *CMP Freeway Segment Impacts – EAP (2024) and EAPC (2024) Conditions*

The Project would result in cumulatively-considerable and unavoidable impacts to the following freeway segments under EAP (2024) and/or EAPC (2024) conditions:

- I-15 Freeway Southbound, North of Nichols Road (#1) – LOS E PM peak hour only
- I-15 Freeway Southbound, South of Nichols Road (#2) – LOS E PM peak hour only

### *CMP Freeway Merge/Diverge Impacts – EAP (2024) and EAPC (2024) Conditions*

The Project would result in a cumulatively-considerable and unavoidable impact to the following freeway merge/diverge location under EAP (2024) and/or EAPC (2024) conditions:

- I-15 Freeway Southbound, Off-Ramp at Nichols Road (#1) – LOS E PM peak hour only
- I-15 Freeway Southbound, On-Ramp at Nichols Road (#2) – LOS E PM peak hour only

**Threshold d.: Less-than-Significant Impact with Mitigation:** Implementation of Mitigation Measure MM 4.16-1 would require the Project Applicant to prepare a temporary traffic control plan that complies with the applicable requirements of the California Manual on Uniform Traffic Control Devices. Implementation of the traffic control plan would ensure that adverse effects to emergency access in the local area during the Project's construction phase are reduced to less-than-significant levels.

# 4.17 TRIBAL CULTURAL RESOURCES

This Subsection is based, in part, on a site-specific cultural resources assessment report titled "A Phase I and II Cultural Resources Assessment for the Nichols Ranch Specific Plan Project" (dated April 28, 2018). The report was prepared by Brian F. Smith and Associates (BFSA) and is included as *Technical Appendix H* to this EIR. All references used in this Subsection are included in EIR Section 7.0, *References*. Confidential information has been redacted from *Technical Appendix H* for purposes of public review. In addition, much of the written and oral communication between Native American tribes, the City of Lake Elsinore, and BFSA is considered confidential in respect to places that have traditional tribal cultural significance (Gov. Code § 65352.4), and although relied upon in part to inform the preparation of this EIR Subsection, those communications are treated as confidential and are not available for public review. Under existing law, environmental documents must not include information about the location of archeological sites or sacred lands or any other information that is exempt from public disclosure pursuant to the Public Records Act (Cal. Code Regs. § 15120(d)).

## 4.17.1 EXISTING CONDITIONS

### *A. Prehistoric Setting*

#### *1. Prehistoric Period Setting*

The Project site is located in the northeastern portion of the City of Lake Elsinore in western Riverside County. The Paleo Indian, Archaic Period Milling Stone Horizon, and the Late Prehistoric Shoshonean groups are the three general cultural periods represented in Riverside County, as summarized briefly below. The following discussion of the cultural history of Riverside County references the San Dieguito Complex, Encinitas Tradition, Milling Stone Horizon, La Jolla Complex, Pauma Complex, and San Luis Rey Complex, since these culture sequences have been used to describe archaeological manifestations in the region. The Late Prehistoric component present in the Riverside County area was represented by the Cahuilla, Gabrielino, and Luiseño Indians. (BFSA, 2018, p. 2.0-5) Refer to Section 2.3 of the Project's cultural resources assessment (*Technical Appendix H*) for a more detailed discussion about the prehistoric cultural periods in Riverside County.

- Late Pleistocene/Paleo Indian Period (11,500 to circa 9,000 Years Before Present [YBP]). The Paleo Indian Period is associated with the terminus of the late Pleistocene (12,000 to 10,000 YBP). The environment during the late Pleistocene was cool and moist, which allowed for glaciation in the mountains and the formation of deep, pluvial lakes in the deserts and basin lands. However, by the terminus of the late Pleistocene, the climate became warmer, which caused the glaciers to melt; sea levels to rise; greater coastal erosion; large lakes to recede and evaporate; extinction of Pleistocene megafauna; and major vegetation changes. The coastal shoreline at 10,000 YBP, depending upon the particular area of the coast, was near the 30-meter isobath, or two to six kilometers further west than its present location. Paleo Indians were likely attracted to multiple habitat types, including mountains, marshlands, estuaries, and lakeshores. These people likely subsisted using a more generalized hunting, gathering, and collecting adaptation utilizing a variety of resources including birds, mollusks, and both large and small mammals. (BFSA, 2018, p. 2.0-6)
- Early and Middle Holocene/Archaic Period (circa 9,000 to 1,300 YBP). Between 9,000 and 8,000 YBP, a widespread complex was established in the southern California region, primarily along the

coast. This complex is locally known as the La Jolla Complex, which is regionally associated with the Encinitas Tradition and shares cultural components with the widespread Milling Stone Horizon. The coastal expression of this complex appeared in the southern California coastal areas and focused upon coastal resources and the development of deeply stratified shell middens that were primarily located around bays and lagoons. The older sites associated with this expression are located at Topanga Canyon, Newport Bay, Agua Hedionda Lagoon, and some of the Channel Islands. Radiocarbon dates from sites attributed to this complex span a period of over 7,000 years in this region, beginning over 9,000 YBP. (BFSA, 2018, p. 2.0-6)

The Encinitas Tradition is best recognized for its pattern of large coastal sites characterized by shell middens, grinding tools that are closely associated with the marine resources of the area, cobble-based tools, and flexed human burials. While ground stone tools and scrapers are the most recognized tool types, coastal Encinitas Tradition sites also contain numerous utilized flakes, which may have been used to pry open shellfish. Artifact assemblages at coastal sites indicate a subsistence pattern focused upon shellfish collection and nearshore fishing. This suggests an incipient maritime adaptation with regional similarities to more northern sites of the same period. Other artifacts associated with Encinitas Tradition sites include stone bowls, doughnut stones, discoidals, stone balls, and stone, bone, and shell beads. (BFSA, 2018, p. 2.0-6)

The coastal lagoons in southern California supported large Milling Stone Horizon populations circa 6,000 YBP, as is shown by numerous radiocarbon dates from the many sites adjacent to the lagoons. The ensuing millennia were not stable environmentally, and by 3,000 YBP, many of the coastal sites in central San Diego County had been abandoned. The abandonment of the area is usually attributed to the sedimentation of coastal lagoons and the resulting deterioration of fish and mollusk habitat, a situation well-documented at Batiquitos Lagoon. Over a 2,000-year period at Batiquitos Lagoon, dominant mollusk species occurring in archaeological middens shift from deep-water mollusks (Argopecten sp.) to species tolerant of tidal flat conditions (Chione sp.), indicating water depth and temperature changes. This situation likely occurred for other small drainages (Buena Vista, Agua Hedionda, San Marcos, and Escondido creeks) along the central San Diego coast where low flow rates did not produce sufficient discharge to flush the lagoons they fed (Buena Vista, Agua Hedionda, Batiquitos, and San Elijo lagoons). Drainages along the northern and southern San Diego coastline were larger and flushed the coastal hydrological features they fed, keeping them open to the ocean and allowing for continued human exploitation. Peñasquitos Lagoon exhibits dates as late as 2,355 YBP and San Diego Bay showed continuous occupation until the close of the Milling Stone Horizon. Additionally, data from several drainages in Camp Pendleton indicate a continued occupation of shell midden sites until the close of the period, indicating that coastal sites were not entirely abandoned during this time. (BFSA, 2018, p. 2.0-7)

By 5,000 YBP, an inland expression of the La Jolla Complex is evident in the archaeological record, exhibiting influences from the Campbell Tradition from the north. These inland Milling Stone Horizon sites have been termed “Pauma Complex.” By definition, Pauma Complex sites share a predominance of grinding implements (manos and metates), lack mollusk remains, have greater tool variety (including atlatl dart points, quarry-based tools, and crescentics), and seem to express a more sedentary lifestyle with a subsistence economy based upon the use of a broad variety of terrestrial resources. Although originally viewed as a separate culture from the coastal La Jolla Complex, it appears that

these inland sites may be part of a subsistence and settlement system utilized by the coastal peoples. Evidence from the 4S Project in inland San Diego County suggests that these inland sites may represent seasonal components within an annual subsistence round by La Jolla Complex populations. Including both coastal and inland sites of this time period in discussions of the Encinitas Tradition, therefore, provides a more complete appraisal of the settlement and subsistence system exhibited by this cultural complex. (BFSA, 2018, p. 2.0-7)

- Late Holocene/Late Prehistoric/San Luis Rey Period (1300 YBP to 1790). Approximately 1,350 YBP, a Shoshonean-speaking group from the Great Basin region moved into Riverside County, marking the transition to the Late Prehistoric Period. This period is characterized by higher population densities and elaborations in social, political, and technological systems. Economic systems diversified and intensified during this period with the continued elaboration of trade networks, the use of shell-bead currency, and the appearance of more labor-intensive, yet effective, technological innovations. Technological developments during this period included the introduction of the bow and arrow between A.D. 400 and 600 and the introduction of ceramics. Atlatl darts were replaced by smaller arrow darts, including Cottonwood series points. Other hallmarks of the Late Prehistoric Period include extensive trade networks as far-reaching as the Colorado River Basin and cremation of the dead. (BFSA, 2018, pp. 2.0-7 and 2.0-8)
- Late Holocene/Late Protohistoric Period (1790 to Present). Ethnohistoric and ethnographic evidence indicates that three Shoshonean-speaking groups occupied portions of Riverside County including the Cahuilla, the Gabrielino, and the Luiseño. The geographic boundaries between these groups in pre- and protohistoric times are difficult to place, but the Project is located on the border of ethnographic Luiseño and Cahuilla territory. Further ethnographic information for the Luiseño, Cahuilla, and Gabrielino groups is presented in section 2.3.4 of the Project's Cultural Resources Assessment (*Technical Appendix H*). (BFSA, 2018, p. 2.0-8)

### *B. Documented Prehistoric Resources*

Brian F. Smith and Associates conducted an archaeological assessment of the Project site to identify the presence or absence of cultural resources. Testing to determine site significance included a records search, a Sacred Lands Records Search, a focused survey, and subsurface testing (advancing a series of shovel test pits [STPs]) (BFSA, 2018, pp. 1.0-1 and 1.0-2). The study resulted in the identification of one (1) prehistoric resource, which was previously unrecorded. During the 2017 survey of the property, BFSA confirmed the presence of prehistoric resource Site P-33-026830 at the Project site and conducted additional significance testing. The prehistoric resource site identified at the Project site is listed below.

- **Site P-33-026830:** Isolate P-33-026830 was identified on March 22, 2017 by BFSA archaeologists as two (2) prehistoric lithic flakes. Isolate P-33-026830 is located in the northeastern portion of the area of potential effect (APE). The area surrounding P-33-026830 has been disturbed by agricultural discing. Vegetation present during testing was minimal, which allowed for excellent surface visibility. Two (2) volcanic flakes were recovered from the surface of P-33-026830 although a shovel test conducted at the site was negative. P-33-026830 lacks intact subsurface deposit and the ability to provide any future research potential; therefore, P-33-026830 is evaluated as not significant under CEQA. (BFSA, 2018, p. 4.0-32 and 4.0-34)

## 4.17.2 APPLICABLE ENVIRONMENTAL REGULATIONS

The following is a brief description of the federal, state, and local environmental laws and related regulations governing the protection of cultural and tribal cultural resources.

### *A. Federal Regulations*

#### *1. National Historic Preservation Act*

The National Historic Preservation Act of 1966 (NHPA) was passed primarily to acknowledge the importance of protecting our nation's heritage. While Congress recognized that national goals for historic preservation could best be achieved by supporting the drive, enthusiasm, and wishes of local citizens and communities, it understood that the Federal Government must set an example through enlightened policies and practices. In the words of the Act, the Federal Government's role would be to "provide leadership" for preservation, "contribute to" and "give maximum encouragement" to preservation, and "foster conditions under which our modern society and our prehistoric and historic resources can exist in productive harmony." (NPS, 2018c)

NHPA and related legislation sought a partnership among the Federal Government and the States that would capitalize on the strengths of each. The Federal Government, led by the National Park Service (NPS) provides funding assistance; basic technical knowledge and tools; and a broad national perspective on America's heritage. The States, through State Historic Preservation Officers (SHPOs) appointed by the Governor of each State, would provide matching funds, a designated State office, and a statewide preservation program tailored to State and local needs and designed to support and promote State and local historic preservation interests and priorities. (NPS, 2018c)

An Advisory Council on Historic Preservation, the first and only Federal entity created solely to address historic preservation issues, was established as a cabinet-level body of Presidentially-appointed citizens, experts in the field, and Federal, State, and local government representatives, to ensure that private citizens, local communities, and other concerned parties would have a forum for influencing federal policy, programs, and decisions as they impacted historic properties and their attendant values. (NPS, 2018c)

Section 106 of NHPA granted legal status to historic preservation in federal planning, decision-making, and project execution. Section 106 requires all federal agencies to take into account the effects of their actions on historic properties and provide ACHP with a reasonable opportunity to comment on those actions and the manner in which Federal agencies are taking historic properties into account in their decisions. (NPS, 2018c)

A number of additional executive and legislative actions have been directed toward improving the ways in which all federal agencies manage historic properties and consider historic and cultural values in their planning and assistance. Executive Order 11593 (1971) and, later, Section 110 of NHPA (1980, amended 1992), provided the broadest of these mandates, giving federal agencies clear direction to identify and consider historic properties in federal and federally assisted actions. The National Historic Preservation Amendments of 1992 further clarified Section 110 and directed federal agencies to establish preservation programs commensurate with their missions and the effects of their authorized programs on historic properties.

### 2. National Historic Landmarks Program

National Historic Landmarks (NHLs) are nationally significant historic places designated by the Secretary of the Interior because they possess exceptional value or quality in illustrating or interpreting the heritage of the United States. Today, just over 2,500 historic places bear this national distinction. Working with citizens throughout the nation, the National Historic Landmarks Program draws upon the expertise of National Park Service staff who guide the nomination process for new Landmarks and provide assistance to existing Landmarks. (NPS, 2017a)

### 3. American Indian Religious Freedom Act

The American Indian Religious Freedom Act (AIRFA) requires each executive branch agency with statutory or administrative responsibility for the management of federal lands shall, to the extent practicable, permitted by law, and not clearly inconsistent with essential agency functions, to accommodate access to and ceremonial use of Indian sacred sites by Indian religious practitioners and avoid adversely affecting the physical integrity of such sacred sites. Where appropriate, agencies also are required to maintain the confidentiality of sacred sites. Each executive branch agency with statutory or administrative responsibility for the management of federal lands are required to implement procedures to ensure reasonable notice is provided of proposed actions or land management policies that may restrict future access to or ceremonial use of, or adversely affect the physical integrity of, sacred sites.

### 4. Native American Graves Protection and Repatriation Act (NAGPRA)

The Native American Graves Protection and Repatriation Act (NAGPRA; Public Law 101-601; 25 U.S.C. 3001-3013) describes the rights of Native American lineal descendants, Indian tribes, and Native Hawaiian organizations with respect to the treatment, repatriation, and disposition of Native American human remains, funerary objects, sacred objects, and objects of cultural patrimony, referred to collectively in the statute as cultural items, with which they can show a relationship of lineal descent or cultural affiliation. (NPS, 2018a)

One major purpose of this statute is to require that federal agencies and museums receiving Federal funds inventory holdings of Native American human remains and funerary objects and provide written summaries of other cultural items. The agencies and museums must consult with Indian Tribes and Native Hawaiian organizations to attempt to reach agreements on the repatriation or other disposition of these remains and objects. Once lineal descent or cultural affiliation has been established, and in some cases the right of possession also has been demonstrated, lineal descendants, affiliated Indian Tribes, or affiliated Native Hawaiian organizations normally make the final determination about the disposition of cultural items. Disposition may take many forms from reburial to long term curation, according to the wishes of the lineal descendent(s) or culturally affiliated Tribe(s). (NPS, 2018a)

The second major purpose of the statute is to provide greater protection for Native American burial sites and more careful control over the removal of Native American human remains, funerary objects, sacred objects, and items of cultural patrimony on Federal and tribal lands. NAGPRA requires that Indian tribes or Native Hawaiian organizations be consulted whenever archaeological investigations encounter, or are expected to encounter, Native American cultural items or when such items are unexpectedly discovered on Federal or tribal lands. Excavation or removal of any such items also must be done under procedures required by the

Archaeological Resources Protection Act. This NAGPRA requirement is likely to encourage the in-situ preservation of archaeological sites, or at least the portions of them that contain burials or other kinds of cultural items. (NPS, 2018a)

Other provisions of NAGPRA: (1) stipulate that illegal trafficking in human remains and cultural items may result in criminal penalties; (2) authorizes the Secretary of the Interior to administer a grants program to assist museums and Indian Tribes in complying with certain requirements of the statute; (3) requires the Secretary of the Interior to establish a Review Committee to provide advice and assistance in carrying out key provisions of the statute; 4) authorizes the Secretary of the Interior to penalize museums that fail to comply with the statute; and, (5) directs the Secretary to develop regulations in consultation with this Review Committee. (NPS, 2018a)

#### *5. Federal Antiquities Act*

The Antiquities Act is the first law to establish that archaeological sites on public lands are important public resources. It obligates federal agencies that manage the public lands to preserve for present and future generations the historic, scientific, commemorative, and cultural values of the archaeological and historic sites and structures on these lands. It also authorizes the President to protect landmarks, structures, and objects of historic or scientific interest by designating them as National Monuments. (NPS, 2018b)

### *B. State Regulations*

#### *1. California Administrative Code, Title 14, Section 4308*

Section 4308, *Archaeological Features*, of Title 14 of the California Administrative Code provides that: "No person shall remove, injure, disfigure, deface, or destroy any object of archaeological, or historical interest or value."

#### *2. California Code of Regulations Title 14, Section 1427*

California Code of Regulations Title 14, Section 1427 provides that: "No person shall collect or remove any object or thing of archaeological or historical interest or value, nor shall any person injure, disfigure, deface or destroy the physical site, location or context in which the object or thing of archaeological or historical interest or value is found."

#### *3. Traditional Tribal Cultural Places Act (Senate Bill 18, "SB 18")*

Senate Bill 18 (SB 18) requires local (city and county) governments to consult with California Native American tribes to aid in the protection of traditional tribal cultural places ("cultural places") through local land use planning. SB 18 also requires the Governor's Office of Planning and Research (OPR) to include in the General Plan Guidelines advice to local governments for how to conduct these consultations. (OPR, 2005)

The intent of SB 18 is to provide California Native American tribes an opportunity to participate in local land use decisions at an early planning stage, for the purpose of protecting, or mitigating impacts to, cultural places. The purpose of involving tribes at these early planning stages is to allow consideration of cultural places in the context of broad local land use policy, before individual site-specific, project-level land use decisions are made by a local government. (OPR, 2005)

SB 18 requires local governments to consult with tribes prior to making certain planning decisions and to provide notice to tribes at certain key points in the planning process. These consultation and notice requirements apply to adoption and amendment of both general plans (defined in Government Code § 65300 *et seq.*) and specific plans (defined in Government Code § 65450 *et seq.*). Although SB 18 does not specifically mention consultation or notice requirements for adoption or amendment of specific plans, existing state planning law requires local governments to use the same processes for adoption and amendment of specific plans as for general plans (see Government Code § 65453). Therefore, where SB 18 requires consultation and/or notice for a general plan adoption or amendment, the requirement extends also to a specific plan adoption or amendment. (OPR, 2005)

### *4. Assembly Bill 52 (AB 52)*

The legislature added new requirements regarding tribal cultural resources in Assembly Bill 52 (AB 52). By including tribal cultural resources early in the CEQA process, the legislature intended to ensure that local and Tribal governments, public agencies, and project proponents would have information available, early in the project planning process, to identify and address potential adverse impacts to tribal cultural resources. By taking this proactive approach, the legislature also intended to reduce the potential for delay and conflicts in the environmental review process. (OPR, 2015)

The Public Resources Code now establishes that "[a] project with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource is a project that may have a significant effect on the environment." (Pub. Resources Code, § 21084.2.) To help determine whether a project may have such an effect, the Public Resources Code requires a lead agency to consult with any California Native American tribe that requests consultation and is traditionally and culturally affiliated with the geographic area of a proposed project. That consultation must take place prior to the determination of whether a negative declaration, mitigated negative declaration, or environmental impact report is required for a project. (Pub. Resources Code, § 21080.3.1.) (OPR, 2015)

If a lead agency determines that a project may cause a substantial adverse change to tribal cultural resources, the lead agency must consider measures to mitigate that impact. Public Resources Code § 20184.3 (b)(2) provides examples of mitigation measures that lead agencies may consider to avoid or minimize impacts to tribal cultural resources. These rules apply to projects that have a notice of preparation for an environmental impact report or negative declaration or mitigated negative declaration filed on or after July 1, 2015. (OPR, 2015)

§ 21074 of the Public Resources Code defines "tribal cultural resources." In brief, in order to be considered a "tribal cultural resource," a resource must be either:

(1) listed, or determined to be eligible for listing, on the national, state, or local register of historic resources, or

(2) a resource that the lead agency chooses, in its discretion, to treat as a tribal cultural resource. (OPR, 2015)

In the latter instance, the lead agency must determine that the resource meets the criteria for listing in the state register of historic resources. In applying those criteria, a lead agency must consider the value of the resource to the tribe. (OPR, 2015)

### *5. State Health and Safety Code*

California Health and Safety Code (HSC) § 7050.5(b) requires that excavation and disturbance activities must cease "In the event of discovery or recognition of any human remains in any location other than a dedicated cemetery…" until the coroner can determine regarding the circumstances, manner, and cause of any death. The coroner is then required to make recommendations concerning the treatment and disposition of the human remains. Further, this section of the code makes it a misdemeanor to intentionally disturb, mutilate or remove interred human remains. § 7051 specifies that the removal of human remains from "internment or a place of storage while awaiting internment" with the intent to sell them or to dissect them with "malice or wantonness" is a public offense punishable by imprisonment in a state prison. Lastly, HSC §§ 8010-8011 establish the California Native American Graves Protection and Repatriation Act consistent with the federal law addressing the same. The Act stresses that "all California Indian human remains and cultural items are to be treated with dignity and respect." It encourages voluntary disclosure and return of remains and cultural items by publicly funded agencies and museums in California. It also outlines the need for aiding California Indian tribes, including non-federally recognized tribes, in filing repatriation claims.

### *6. California Code of Regulations Section 15064.5*

The California Code of Regulations, Title 14, Chapter 3, § 15064.5 (the State CEQA Guidelines) establishes the procedure for determining the significance of impacts to archaeological and historical resources, as well as classifying the type of resource. Cultural resources are aspects of the environment that require identification and assessment for potential significance. The evaluation of cultural resources under CEQA is based upon the definitions of resources provided in CEQA Guidelines § 15064.5, as follows:

- A resource listed in, or determined to be eligible by the State Historical Resources Commission, for listing in the California Register of Historical Resources (Pub. Res. Code § 5024.1, Title 14 CCR, Section 4850 *et seq.*).
- A resource included in a local register of historical resources, as defined in section 5020.1(k) of the Public Resources Code or identified as significant in an historical resource survey meeting the requirements section 5024.1(g) of the Public Resources Code, shall be presumed to be historically or culturally significant. Public agencies must treat any such resource as significant unless the preponderance of evidence demonstrates that it is not historically or culturally significant.
- Any object, building, structure, site, area, place, record, or manuscript which a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California may be considered to be an historical resource, provided the lead agency's determination is supported by substantial evidence in light of the whole record. Generally, a resource shall be considered by the lead agency to be "historically significant" if the resource meets the criteria for listing on the California Register of Historical Resources (Pub. Res. Code § 5024.1, Title 14 CCR, Section 4852) including the following:

- Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;
- Is associated with the lives of persons important in our past;
- 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; or
- Has yielded, or may be likely to yield, information important in prehistory or history.

- The fact that a resource is not listed in, or determined to be eligible for listing in the California Register of Historical Resources, not included in a local register of historical resources (pursuant to section 5020.1(k) of the Public Resources Code), or identified in an historical resources survey (meeting the criteria in section 5024.1(g) of the Public Resources Code) does not preclude a lead agency from determining that the resource may be an historical resource as defined in Public Resources Code sections 5020.1(j) or 5024.1.

### *C. Local Regulations*

#### *1. City of Lake Elsinore General Plan*

The City of Lake Elsinore General Plan, Chapter 4, *Resource Protection and Preservation*, addresses resource protection and preservation issues related to biological resources, open space, water resources, cultural and paleontological resources, and aesthetics resources. Section 4.6.8, *Cultural and Paleontological Resource Goals, Policies, and Implementation Programs*, and Section 4.7.3, *Historical Preservation Goals,* Policies and Implementation Programs, details policies, implementation programs, and responsible agencies and departments in support of the following goals regarding cultural resources:

- Goal 6: Preserve, protect, and promote the cultural heritage of the City and surrounding region for the education and enjoyment of all City residents and visitors, as well as for the advancement of historical and archaeological knowledge.
- Goal 7: Support state-of-the-art research designs and analytical approaches to archaeological and cultural resource investigations while also acknowledging the traditional knowledge and experience of the Native American tribes regarding Native American culture.
- Goal 9: Assure the recognition of the City's heritage through preservation of the City's significant historical sites and structures.
- Goal 10: Encourage the preservation, protection, and restoration of historical and cultural resources.

## 4.17.3 Basis for Determining Significance

The proposed Project would result in a significant impact to tribal cultural resources if the Project or any Project-related component would:

*a. Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code 21074 as either a site, feature, place, cultural landscape that is geographically defined*

*in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American Tribe, and that is:*

*i) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k).*

*ii) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth is subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.*

The above listed thresholds are derived directly from Section XVIII of Appendix G to the CEQA Guidelines and address typical adverse effects to tribal cultural resources (OPR, 2018).

## 4.17.4 IMPACT ANALYSIS

| | |
|---|---|
| ***Threshold a:*** | ***Would the Project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American Tribe, and that is:*** |
| ***i)*** | ***Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k).*** |
| ***ii)*** | ***A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth is subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.*** |

As part of the AB 52 and SB 18 consultation processes required by State law, on December 4, 2018, the City of Lake Elsinore sent a notice to the Native American Heritage Commission (NAHC) to obtain a list of Native American tribes with possible traditional or cultural affiliation to the area. The list of tribes was received by the City of Lake Elsinore on December 18, 2018. Based on the list of tribes provided by the NAHC, the City of Lake Elsinore sent a 90-day notification to potentially affected tribes on December 18, 2018. In response to the 90-day notification, only three tribes responded requesting consultation: the Rincon Band of Luiseño Indians, the Soboba Band of Luiseño Indians, and the Pechanga Band of Luiseño Indians. As a result, the following consultations occurred:

- Rincon Band of Luiseño Indians: The City of Lake Elsinore held a consultation meeting with the Rincon Band of Luiseño Indians on January 10, 2019. As part of the consultation, the Rincon Band of Luiseño Indians did not identify any potential Tribal Cultural Resources (TCRs) within the Project's potential impact limits. However, the Rincon Band of Luiseño Indians did indicate a concern over the potential for uncovering TCRs or other tribal-affiliated resources during construction of the Project.

In response, on January 10, 2019 City Planning staff provided the Rincon Band of Luiseño Indians with recommended mitigation measures for review to address the potential for subsurface TCRs on the Project site. The mitigation measures agreed to by the various tribes that were consulted is provided in EIR Subsection 4.8 as Mitigation Measures 4.8-1 through 4.8-7. The Rincon Band of Luiseño Indians indicated that they were in agreement with the identified mitigation measures, and the AB 52/SB18 consultation process was concluded on January 30, 2019.

- Soboba Band of Luiseño Indians: The City of Lake Elsinore held a consultation meeting with the Soboba Band of Luiseño Indians on January 15, 2019. As part of the consultation, the Rincon Band of Luiseño Indians did not identify any potential TCRs within the Project's potential impact limits. However, the Soboba Band of Luiseño Indians did indicate a concern over the potential for uncovering TCRs or other tribal-affiliated resources during construction of the Project. In response, on January 16, 2019 City Planning staff provided the Soboba Band of Luiseño Indians with recommended mitigation measures for review to address the potential for subsurface TCRs on the Project site. The mitigation measures agreed to by the various tribes that were consulted is provided in EIR Subsection 4.8 as Mitigation Measures 4.8-1 through 4.8-7. The Soboba Band of Luiseño Indians indicated that they were in agreement with the identified mitigation measures, and the AB 52/SB18 consultation process was concluded on February 6, 2019.
- Pechanga Band of Luiseño Indians: The City of Lake Elsinore held an initial consultation meeting with the Pechanga Band of Luiseño Indians on January 30, 2019. A follow-up consultation meeting was held on February 21, 2019. As part of the consultation, the Pechanga Band of Luiseño Indians did not identify any potential TCRs within the Project's potential impact limits. However, the Pechanga Band of Luiseño Indians did indicate a concern over the potential for uncovering TCRs or other tribal-affiliated resources during construction of the Project. In response, on February 25, 2019 City Planning staff provided the Soboba Band of Luiseño Indians with recommended mitigation measures for review to address the potential for subsurface TCRs on the Project site. The mitigation measures agreed to by the various tribes that were consulted is provided in EIR Subsection 4.8 as Mitigation Measures 4.8-1 through 4.8-7. The Soboba Band of Luiseño Indians indicated that they were in agreement with the identified mitigation measures, and the AB 52/SB18 consultation process was concluded on March 15, 2019.

As a result of the required AB 52 and SB 18 consultation processes with Native American tribes with possible traditional or cultural affiliation to the area and that requested consultation with the City, there were no TCRs identified within the Project's impact limits. Although the Project has the potential to result in impacts to TCRs that may be uncovered during grading and other site work as part of the Project, Mitigation Measures MM 4.8-1 through MM 4.8-7 have been agreed to by the culturally-affiliated tribes that requested consultation and would reduce the Project's potential to result in significant impacts to subsurface TCRs to less-than-significant levels. Notwithstanding, mitigation would be required to preclude impacts to subsurface TCRs. Therefore, prior to mitigation the Project has the potential to cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American Tribe, and this represents a significant impact of the proposed Project.

## 4.17.5 Cumulative Impact Analysis

This cumulative impact analysis considers development of the proposed Project in conjunction with other development projects and planned development in the vicinity of the Project site that have a potential for uncovering TCRs as defined by Public Resources Code 21074.

As noted earlier in this Subsection, the City of Lake Elsinore conducted Native American consultation with potentially culturally affiliated tribes, as required by AB 52 and SB 18. As a result of this consultation effort, no TCRs were identified on site, although the tribes did indicate a concern over potential impacts to subsurface resources. Other cumulative developments within the region also would have the potential to result in impacts to subsurface TCRs. Therefore, the Project's potential impacts to subsurface TCRs represents a cumulatively-considerable impact for which mitigation would be required.

## 4.17.6 Significance of Impacts Before Mitigation

Threshold a: Significant Direct and Cumulatively-Considerable Impact. Although no TCRs are known to occur within the Project's impact limits, implementation of the Project has the potential cause a substantial adverse change in the significance of tribal cultural resources that may be buried beneath the site's surface.

## 4.17.7 City Regulations, Design Requirements, and Mitigation

### *Applicable City Regulations and Design Requirements*

The following are applicable regulations and design requirements within the City of Lake Elsinore. Although these requirements technically do not meet CEQA's definition for mitigation, they are imposed herein to ensure Project compliance with applicable City regulations and design requirements.

- In the event that human remains are discovered, pursuant to California Health and Safety Code § 7050.5, as well as the Public Resources Code § 5097 *et. seq.*, the Project Archaeologist shall have the authority to divert or temporarily halt ground disturbance operation within 100 feet the area of discovery to allow for the evaluation of the human remains and the surrounding vicinity. If any human remains are discovered, the County Coroner and lead agency shall be contacted. The County Coroner shall determine that no investigation of the cause of death is required and determine if the remains are of Native American origin. In the event that the remains are determined to be of Native American origin, the NAHC shall be contacted within 24 hours of the discovery. The Most Likely Descendant, as identified by the NAHC, shall be contacted in order to determine proper treatment and disposition of the remains. If the NAHC is unable to identify a Most Likely Descendant, or if the Most Likely Descendant failed to make a recommendation within 48 hours after being notified by the NAHC, or the Project Applicant rejects the recommendation of the Most Likely Descendent; the Project Applicant shall rebury the Native American human remains and associated grave goods on the property in a location not subject to further ground disturbance. Evidence of compliance with this mitigation measure, if human remains are found, shall be provided to the City of Lake Elsinore upon the completion of a treatment plan and final report detailing the significance and treatment finding.

### *Mitigation*

Mitigation Measures MM 4.8-1 through MM 4.8-7, provided in EIR Subsection 4.8, *Historic and Archaeological Resources*, shall apply. No additional mitigation is required.

## 4.17.8 SIGNIFICANCE OF IMPACTS AFTER MITIGATION

Threshold a.: Less-than-Significant Impact with Mitigation Incorporated. Implementation of Mitigation Measures MM 4.8-1 through MM 4.8-7 would ensure that grading and other ground-disturbing activities during construction are monitored by a qualified archaeologist as well as tribal monitors. The mitigation further requires the proper treatment of any resources that may be uncovered, and the avoidance of disturbance in areas where potential resources are uncovered. With implementation of the required mitigation, the Project would not cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American Tribe, and impacts would be reduced to less-than-significant levels.

# 4.18 Utilities and Service Systems

## 4.18.1 Existing Conditions

The Project site is located within the service boundaries of the Elsinore Valley Municipal Water District (EVMWD) for water and sewer service, Southern California Edison Company for electricity, the Southern California Gas Company for natural gas, Verizon for telephone services, and Time Warner for cable television service. Solid waste hauling service to the Project site is provided by CR&R Waste Services under an exclusive franchise agreement with the City of Lake Elsinore. The analysis in this section is based in part upon the EVMWD Urban Water Management Plan (UWMP), dated June 2016, which is herein incorporated by reference and is available for public review at 31315 Chaney Street, Lake Elsinore, CA 92530 (EVMWD, 2016a). The information in this Subsection also relies upon the EVMWD 2016 Sewer System Master Plan Final Report, dated August 2016, and the EVMWD 2016 Water System Master Plan, also dated August 2016, both of which are also herein incorporated by reference and are available for public review at the EVMWD. Information in this Subsection also relies in part on a letter from the Riverside County Department of Waste Resources (RCDWR) dated June 13, 2018 and included in *Technical Appendix M*, which provides information about regional solid waste facilities (RCDWR, 2018). In addition, the analysis in this section is based in part on two technical reports prepared by Dexter Wilson Engineering, Inc. The first study is entitled, "Water System Analysis for Tract No. 37305," dated July 2018 and included as *Technical Appendix N1*. The second study is entitled, "Preliminary Sewer System Evaluation for Tract No. 37305," dated July 2018 and included as *Technical Appendix N2.*

### *A. Water Service and Supply*

Water service to the Project area is provided by the EVMWD. The EVMWD's service area encompasses approximately 97 square miles and includes the Cities of Lake Elsinore and Canyon Lake, and portions of the City of Wildomar, Murrieta, and unincorporated Riverside County and Orange County land. EVMWD's service area is divided into two divisions: the Elsinore Division and the Temescal Division. The Project site is located within the Elsinore Division, which makes up the majority of the service area with approximately 42,700 accounts, encompassing an area of 96 square miles. (EVMWD, 2016a, p. 3-2)

The EVMWD has three primary sources of potable water supply: 1) local groundwater pumped from EVMWD-owned wells (which accounts for approximately 33 percent of the supply from 1992-2013 years); 2) surface water from Canyon Lake Reservoir and treated by the Canyon Lake Water Treatment Plant (which accounts for approximately 10 percent of the supply from 1992-2013); and 3) Imported water purchased from Metropolitan Water District (MWD) through Western Municipal Water District (WMWD) (which accounts for approximately 57 percent of the supply from 1992- 2013). In addition, EVMWD has access to several additional water sources through its acquisition of the Temescal Water Company assets in 1989. These consist of groundwater from the Bunker Hill, Rialto-Colton, Riverside North, Bedford, Coldwater, and Lee Lake Basins, and surface water from Temescal Creek and several tributary creeks. (EVMWD, 2016a, p. 6-1)

EVMWD has a recycled water network that delivers non-potable recycled water to customers in four different service areas. Three of the service areas are supplied by EVMWD-owned water reclamation facilities (WRF), and one recycled water service area is supplied from the Santa Rosa WRF owned by Rancho California Water District. The Eastern Municipal Water District (EMWD) supplies recycled water to the Canyon Lake Golf

Course in the Railroad Canyon service area during peak summer demands. All three of EVMWD's water reclamation facilities are capable of producing recycled water quality water. (EVMWD, 2016a, p. 6-1)

In conformance with the Water Conservation Act of 2009, EVMWD's UWMP identifies a Base Daily Water Use calculation, which is based on the average gross water use by a retail agency over a ten-year period ending no earlier than 2004 and no later than 2010, or a 15-year period if at least 10 percent of 2008 demand was met by recycled water. Because recycled water made up only 1.43% of 2008 deliveries, EVMWD's UWMP utilizes a ten-year period encompassing the years 1999 through 2008. In addition to the 10-year base period, the Department of Water Resources (DWR) also requires that an evaluation be performed over a 5-year continuous period, ending no earlier than December 31, 2007 and no later than December 31, 2010. Table 4.18-1, *EVMWD Baseline Period Ranges*, shows the baseline period ranges presented in the UWMP. (EVMWD, 2016a, p. 5-2)

**Table 4.18-1 EVMWD Baseline Period Ranges**

| Baseline | Parameter | Value | Units |
|---|---|---|---|
| 10- to 15-year baseline period | 2008 total water deliveries | 30,540 | Acre Feet |
| | 2008 total volume of delivered recycled water | 438 | Acre Feet |
| | 2008 recycled water as a percent of total deliveries | 1.43% | Percent |
| | Number of years in baseline period[1] | 10 | Years |
| | Year beginning baseline period range | 1999 | |
| | Year ending baseline period range[2] | 2008 | |
| 5-year baseline period | Number of years in baseline period | 5 | Years |
| | Year beginning baseline period range | 2003 | |
| | Year ending baseline period range[3] | 2007 | |

*[1]If the 2008 recycled water percent is less than 10 percent, then the first baseline period is a continuous 10-year period. If the amount of recycled water delivered in 2008 is 10 percent or greater, the first baseline period is a continuous 10- to 15-year period.*

*[2]The ending year must be between December 31, 2004 and December 31, 2010.*

*[3]The ending year must be between December 31, 2007 and December 31, 2010.*

(EVMWD, 2016a, Table 5-1)

EVMWD service area population for the baseline period is calculated using the DWR population tool, which requires the number of single-family and multi-family residential connections to estimate population. The number of service connections were available for 2000 and 2010, so service connections and population for 2001-2009 were interpolated between 2000 and 2010 census population. Annual and baseline period average gallons per capita per day is presented in Table 4.18-2, *EVMWD Gallons per Capita per Day*. As shown in Table 4.18-2, the population within EVMWD's service area increased from 82,288 to 123,206 between 1999 and 2008 (or an increase of 49.7%), while total water usage increased by 39.4% from 21,902 acre-feet to 30,540 acre-feet per year. For the five-year period between 2003 and 2007, the total population increased from 99,369 to 118,217 (or an increase of 19.0%), while water usage increased by 37.5% from 25,019 acre-feet to 34,395 acre-feet. As shown, gallons per capita per day (GPCD) decreased during the 10-year period from 238 GPCD to 221 GPCD, for an average of 236 GPCD. Over the five-year period, GPCD increased from 225 GPCD to 260 GPCD, with an average of 242 GPCD. (EVMWD, 2016a, p 5-4)

**Table 4.18-2 EVMWD Gallons per Capita per Day**

| Baseline Year *Fm SB X7-7 Table 3* | | Service Area Population *Fm SB X7-7 Table 3* | Annual Gross Water Use (AF) *Fm SB X7-7 Table 4* | Daily Per Capita Water Use (GPCD) |
|---|---|---|---|---|
| 10 to 15 Year Baseline GPCD | | | | |
| Year 1 | 1999 | 82,288 | 21,902 | 238 |
| Year 2 | 2000 | 86,431 | 23,313 | 241 |
| Year 3 | 2001 | 90,592 | 22,379 | 221 |
| Year 4 | 2002 | 94,902 | 24,656 | 232 |
| Year 5 | 2003 | 99,369 | 25,019 | 225 |
| Year 6 | 2004 | 103,937 | 27,232 | 234 |
| Year 7 | 2005 | 108,610 | 28,870 | 237 |
| Year 8 | 2006 | 113,336 | 32,423 | 255 |
| Year 9 | 2007 | 118,217 | 34,395 | 260 |
| Year 10 | 2008 | 123,206 | 30,540 | 221 |
| **10-15 Year Average Baseline GPCD** | | | | **236** |
| 5 Year Baseline GPCD | | | | |
| Year 1 | 2003 | 99,369 | 25,019 | 225 |
| Year 2 | 2004 | 103,937 | 27,232 | 234 |
| Year 3 | 2005 | 108,610 | 28,870 | 237 |
| Year 4 | 2006 | 113,336 | 32,423 | 255 |
| Year 5 | 2007 | 118,217 | 34,395 | 260 |
| **5 Year Average Baseline GPCD** | | | | **242** |
| 2015 Compliance Year GPCD | | | | |
| **2015** | | 149,322 | 21,333 | 128 |

(EVMWD, 2016a, Table 5-3)

In accordance with Water Code Section 10608.22, the 2020 urban water use target also must be less than the Minimum Water Use Reduction Requirement, which is calculated as 95 percent of the five-year base daily per capita water use. For EVMWD, this is 230 GPCD. Thus, the 2020 Water Use Target cannot exceed 230 GPCD. DWR published four methods to determine the urban water use target. The UWMP relies on Method 1, which requires a target water use of 80% of the 10-year base daily per capita water use. For the EVMWD, this results in a target of 189 GPCD. As also shown in Table 4.18-2, EVMWD's 2015 per capita daily water use of 128 GPCD is currently below the 2020 target of 189 GPCD. (EVMWD, 2016a, pp. 5-6 and 5-7)

Table 4.18-3, *EVMWD Total Projected Water Demands*, presents projected water usage within EVMWD's retail service area through year 2040. Table 4.18-4, *Single Dry Year Water Supply and Demand Comparison*, and Table 4.18-5, *Multiple Dry Years Supply and Demand Comparison*, presents the projected potable water system supplies up to year 2040 for urban water use within the EVMWD's service area during single-year and multiple-year dry conditions, respectively. As shown, the EVMWD forecasts being able to meet water demands from its wholesale and retail customers through year 2040. (EVMWD, 2016a, pp. 7-9 through 7-11)

Under existing conditions, the Project site generates a demand for non-potable water associated with dust suppression for the on-going mining reclamation activities within the northern portions of the site. For purposes of analysis herein, it is assumed that the Project site does not generate a demand for potable water under existing conditions.

### Table 4.18-3 EVMWD Total Projected Water Demands

| | 2015 | 2020 | 2025 | 2030 | 2035 | 2040 *(opt)* |
|---|---|---|---|---|---|---|
| Potable and Raw Water (AF) *From Tables 4-1 and 4-2* | 21,333 | 34,400 | 38,800 | 43,200 | 47,400 | 51,800 |
| Recycled Water Demand (AF) *From Table 6-7 (DWR Table 6-4)* | 1,236 | 1,805 | 1,805 | 1,805 | 1,805 | 1,805 |
| **TOTAL WATER DEMAND** | 22,569 | 36,205 | 40,605 | 45,005 | 49,205 | 53,605 |
| NOTES: Recycled water demand only incudes metered customer and golf course irrigation demands. It does not include required flow to Lake Elsinore and Temescal Wash or Groundwater IPR availability. | | | | | | |

(EVMWD, 2016a, Table 4-3)

### Table 4.18-4 Single Dry Year Water Supply and Demand Comparison

| | 2020 | 2025 | 2030 | 2035 | 2040 (Opt) |
|---|---|---|---|---|---|
| Supply totals | 41,170 | 49,514 | 50,089 | 58,079 | 58,309 |
| Demand totals *(autofill from DWR Table 4-3 R)* | 36,205 | 40,605 | 45,005 | 49,205 | 53,605 |
| Difference | 4,965 | 8,909 | 5,084 | 8,874 | 4,704 |
| NOTES: Supply totals shown in DWR Table 6-9 are adjusted to reflect single dry year conditions. Demand totals are from DWR Table 4-3 R and include recycled water and potable water demands. | | | | | |

(EVMWD, 2016a, Table 7-7)

### Table 4.18-5 Multiple Dry Years Supply and Demand Comparison

| | | 2020 | 2025 | 2030 | 2035 | 2040 (Opt) |
|---|---|---|---|---|---|---|
| First year | Supply totals | 42,782 | 51,126 | 51,701 | 59,691 | 59,921 |
| | Demand totals | 36,205 | 40,605 | 45,005 | 49,205 | 53,605 |
| | Difference | 6,577 | 10,521 | 6,696 | 10,486 | 6,316 |
| Second year | Supply totals | 42,640 | 50,984 | 51,559 | 59,549 | 59,779 |
| | Demand totals | 36,205 | 40,605 | 45,005 | 49,205 | 53,605 |
| | Difference | 6,435 | 10,379 | 6,554 | 10,344 | 6,174 |
| Third year | Supply totals | 41,640 | 49,984 | 50,559 | 58,549 | 58,779 |
| | Demand totals | 36,205 | 40,605 | 45,005 | 49,205 | 53,605 |
| | Difference | 5,435 | 9,379 | 5,554 | 9,344 | 5,174 |
| NOTES: Supply totals shown in DWR Table 6-9 are adjusted to reflect multiple dry year conditions. Demand totals are from DWR Table 4-3 R and include recycled water and potable water demands. | | | | | | |

(EVMWD, 2016a, Table 7-8)

### *B. Sewer Service and Treatment*

The EVMWD Sewer District provides service to the City of Lake Elsinore. The "backbone" of the system consists of trunk sewers, generally 10 inches in diameter and larger, that convey the collected wastewater to EVMWD's Water Reclamation Facilities (WRFs). EVMWD's existing wastewater collection systems consist of approximately 358 miles of sewer mains up to 54 inches in diameter, 33 lift stations, and three WRFs. EVMWD's current service area is delineated into four separate collection systems. These are the Regional, Canyon Lake, Horsethief, and Southern collection systems. The flows conveyed in the Regional, Canyon Lake, and Horsethief collection systems are treated by EVMWD's Regional, Railroad Canyon, and Horsethief WRFs, respectively. The EVMWD Wastewater Management Plan makes recommendations for improvements, such as gravity sewer mains, force mains, lift stations, and wastewater treatment facilities. (Lake Elsinore, 2011b, 3.16-1)

Under existing conditions, the Project site generates a nominal demand for wastewater treatment associated with on-going mining reclamation activities in the northern portions of the site. However, all wastewater generated on site is handled via portable toilets under existing conditions, which is regularly emptied by a rental service company. For purposes of analysis herein, it is assumed that the Project site does not generate a demand for wastewater treatment under existing conditions.

Wastewater flows within the Project area are conveyed to the Regional WRF, located approximately 1.2 miles south of the Project site. The Regional WRF treats the majority of flow generated in the service area, and primarily treats flows from the City of Lake Elsinore. The plant was constructed in 1986 with a capacity of 2 million gallons per day (mgd). Several expansions and improvements were completed over the years, and currently the plant has an average flow capacity of 8 mgd and a peak flow capacity of 17.6 mgd, and treats flows using an extended aeration process. (EVMWD, 2016b, p. 3-13)

### *C. Solid Waste Collection and Disposal*

The RCDWR is responsible for the landfill disposal of non-hazardous waste within western Riverside County and operates six active landfills in addition to holding a contract agreement to dispose of waste at the private El Sobrante Landfill. Waste from the Project area is currently collected by CR&R, a franchise hauler, and delivered to the CR&R Perris Transfer Station/Material Recovery Facility (TS/MRF). Solid waste is then conveyed primarily to the El Sobrante landfill for disposal, although waste also may be delivered to the Badlands and Lamb Canyon Landfills. The following is a description of the landfills that serve the Project area under existing conditions:

- El Sobrante Landfill. The El Sobrante Landfill is located east of Interstate 15 and Temescal Canyon Road to the south of the City of Corona and Cajalco Road at 10910 Dawson Canyon Road. The landfill is owned and operated by USA Waste of California, a subsidiary of Waste Management, Inc., and encompasses 1,322 acres, of which 645 acres are permitted for landfill operation. The El Sobrante Landfill has a total disposal capacity of approximately 209.9 million cubic yards and can receive up to 70,000 tons per week (tpw) of refuse. USA Waste must allot at least 28,000 tpw for County refuse. The landfill's permit allows a maximum of 16,054 tons per day (tpd) of waste to be accepted into the landfill, due to the limits on vehicle trips. If needed, 5,000 tpd must be reserved for County waste,

leaving the maximum commitment of Non-County waste at 11,054 tpd. Per the 2017 Annual Report, the landfill had a remaining in-County disposal capacity of approximately 55.1 million tons.[1] In 2017, the El Sobrante Landfill accepted a daily average of 10,607 tons with a period total of approximately 3.2 million tons. The landfill is expected to reach capacity in approximately 2060. (RCDWR, 2018, pp. 1-2)

- Badlands Landfill. The Badlands Landfill is located northeast of the City of Moreno Valley at 31125 Ironwood Avenue and accessed from State Highway 60 at Theodore Avenue. The landfill is owned and operated by Riverside County. The existing landfill encompasses 1,168.3 acres, with a total permitted disturbance area of 278 acres, of which 150 acres are permitted for refuse disposal. The landfill is currently permitted to receive 4,500 tpd of Municipal Solid Waste (MSW) for disposal and has an estimated total capacity of approximately 20.5 million tons. As of January 1, 2018 (beginning of day), the landfill had a total remaining disposal capacity of approximately 6.9 million tons. The current landfill remaining disposal capacity is estimated to last, at a minimum, until approximately 2022. From January 2017 to December 2017, the Badlands Landfill accepted a daily average of 2,758 tons with a period total of approximately 846,769 tons. Landfill expansion potential exists at the Badlands Landfill site. (RCDWR, 2018, p. 2)

- Lamb Canyon Landfill. The Lamb Canyon Landfill is located between the City of Beaumont and City of San Jacinto at 16411 Lamb Canyon Road (State Route 79), south of Interstate 10 and north of Highway 74. The landfill is owned and operated by Riverside County. The landfill property encompasses approximately 1,189 acres, of which 580.5 acres encompass the current landfill permit area. Of the 580.5-acre landfill permit area, approximately 144.6 acres are permitted for waste disposal. The landfill is currently permitted to receive 5,000 tpd of MSW for disposal and has an estimated total disposal capacity of approximately 20.7 million tons. As of January 1, 2018 (beginning of day), the landfill has a total remaining capacity of approximately 9.9 million tons. The current landfill remaining disposal capacity is estimated to last, at a minimum, until approximately 2029. From January 2017 to December 2017, the Lamb Canyon Landfill accepted a daily average of 1,878 tons with a period total of approximately 576,439 tons. Landfill expansion potential exists at the Lamb Canyon Landfill site.

## 4.18.2 Applicable Environmental Regulations

The following is a brief description of the federal, state, and local environmental laws and related regulations related to utilities and service systems.

### *A. Federal Regulations*

#### *1. Applicable Water Supply Regulations*

❑ Clean Water Act

The Clean Water Act (CWA) establishes the basic structure for regulating discharges of pollutants into the waters of the United States and regulating quality standards for surface waters. The basis of the CWA was enacted in 1948 and was called the Federal Water Pollution Control Act, but the Act was significantly

[1] 2017 El Sobrante Landfill Annual Report- Based on 137,936,464 tons remaining capacity (40% for in-county waste).

reorganized and expanded in 1972. "Clean Water Act" became the Act's common name with amendments in 1972. Under the CWA, the Environmental Protection Agency (EPA) has implemented pollution control programs such as setting wastewater standards for industry, and also has set water quality standards for all contaminants in surface waters. The CWA made it unlawful to discharge any pollutant from a point source into navigable waters, unless a permit was obtained. EPA's National Pollutant Discharge Elimination System (NPDES) permit program controls discharges. Point sources are discrete conveyances such as pipes or man-made ditches. Individual homes that are connected to a municipal system, use a septic system, or do not have a surface discharge do not need an NPDES permit; however, industrial, municipal, and other facilities must obtain permits if their discharges go directly to surface waters. (EPA, 2018a)

- ❑ Safe Drinking Water Act

The Safe Drinking Water Act (SDWA) was established to protect the quality of drinking water in the U.S. This law focuses on all waters actually or potentially designed for drinking use, whether from above ground or underground sources. The Act authorizes EPA to establish minimum standards to protect tap water and requires all owners or operators of public water systems to comply with these primary (health-related) standards. The 1996 amendments to SDWA require that EPA consider a detailed risk and cost assessment, and best available peer-reviewed science, when developing these standards. State governments, which can be approved to implement these rules for EPA, also encourage attainment of secondary standards (nuisance-related). Under the Act, EPA also establishes minimum standards for state programs to protect underground sources of drinking water from endangerment by underground injection of fluids. (EPA, n.d.)

### *B. State Regulations*

#### *1. Applicable Water Supply Regulations*

- ❑ Water Conservation in Landscaping Act

The Water Conservation in Landscaping Act was established to ensure adequate water supplies are available for future uses. To promote the conservation and efficient use of water, the Act requires local agencies to adopt a water efficient landscape ordinance. When such an ordinance had not been adopted, a finding as to why (based on the climatic, geologic, or topographical conditions) such an ordinance is not necessary, must be adopted. In the absence of such an ordinance or findings, the policies and requirements contained in the "model" ordinance drafted by the State of California shall apply within the affected jurisdiction.

- ❑ Water Recycling in Landscaping Act

In 2000, Senate Bill 2095 (Water Recycling in Landscaping Act) was approved by Governor Davis requiring any local public or private entity that produces recycled water and determines that within 10 years it will provide recycled water within the boundaries of a local agency, to notify the local agency of that fact. In turn, local agencies are required to adopt and enforce within 180 days a specified recycled water ordinance, unless the local agency adopted a recycled water ordinance or other regulation requiring the use of recycled water in its jurisdiction prior to January 1, 2001. (DWR, 2004)

### ❑ Urban Water Management Planning Act

The Urban Water Management Planning Act (UWMP Act) was proposed and adopted to ensure that water planning is conducted at the local level, as the State of California recognized that two water agencies in the same region could have very different impacts from a drought. The UWMP Act requires water agencies to develop Urban Water Management Plans (UWMPs) over a 20-year planning horizon, and further required UWMPs to be updated every five years. UWMPs are exempt from compliance with CEQA. (DWR, 2016, p. 1-2)

The UWMPs provide a framework for long term water planning and inform the public of a supplier's plans for long-term resource planning that ensures adequate water supplies for existing and future demands. This part of the California Water Code (CWC) requires urban water suppliers to report, describe, and evaluate:

- Water deliveries and uses;
- Water supply sources;
- Efficient water uses;
- Demand management measures; and
- Water shortage contingency planning. (DWR, 2016, p. 1-3)

The UWMP Act has been modified over the years in response to the State's water shortages, droughts, and other factors. A significant amendment was made in 2009, after the drought of 2007-2009 and as a result of the governor's call for a statewide 20 percent reduction in urban water use by the year 2020. This was the Water Conservation Act of 2009, also known as SB X7-7. This Act required agencies to establish water use targets for 2015 and 2020 that would result in statewide savings of 20 percent by 2020. Beginning in 2016, retail water suppliers are required to comply with the water conservation requirements in SB X7-7 in order to be eligible for State water grants or loans. Retail water agencies are required to set targets and track progress toward decreasing daily per capita urban water use in their service area, which will assist the State in meeting its 20 percent reduction goal by 2020. (DWR, 2016, p. 1-2)

### ❑ Government Code § 66473.7(b)(2) (Senate Bill 221)

Under Senate Bill (SB) 221, approval by a city or county of certain residential subdivisions requires an affirmative written verification of sufficient water supply. SB 221 is intended as a 'fail safe' mechanism to ensure that collaboration on finding the needed water supplies to serve a new large subdivision occurs before construction begins. SB 221 requires the legislative body of a city or county or the advisory agency, to the extent that it is authorized by local ordinance to approve, conditionally approve, or disapprove a tentative map, must include as a condition in any tentative map that includes a subdivision a requirement that a sufficient water supply shall be available. Proof of the availability of a sufficient water supply must be requested by the subdivision applicant or local agency, at the discretion of the local agency, and id based on written verification from the applicable public water system within 90 days of a request. SB 221 does not apply to any residential project proposed for a site that is within an urbanized area and has been previously developed for urban uses, or where the immediate contiguous properties surrounding the residential project site are, or previously have been, developed for urban uses, or housing projects that are exclusively for very low and low-income households. (DWR, 2003)

### ❑ California Senate Bill 610

The California Water Code (Water Code) §§ 10910 through 10915 were amended by the enactment of SB 610 in 2002. SB 610 requires an assessment of whether available water supplies are sufficient to serve the demand generated by a proposed project, as well as the reasonably foreseeable cumulative demand in the region over the next 20 years under average normal year, single dry year, and multiple dry year conditions. Under SB 610, water assessments must be furnished to local governments for inclusion in any environmental documentation for certain projects (as defined in Water Code 10912 [a]) subject to CEQA. (DWR, 2003) For the purposes of SB 610, "project" means any of the following:

(1) A proposed residential development of more than 500 dwelling units.
(2) A proposed shopping center or business establishment employing more than 1,000 persons or having more than 500,000 square feet of floor space.
(3) A proposed commercial office building employing more than 1,000 persons or having more than 250,000 square feet of floor space.
(4) A proposed hotel or motel, or both, having more than 500 rooms.
(5) A proposed industrial, manufacturing, or processing plant, or industrial park planned to house more than 1,000 persons, occupying more than 40 acres of land, or having more than 650,000 square feet of floor area.
(6) A mixed-use project that includes one or more of the projects specified in this subdivision.
(7) A project that would demand an amount of water equivalent to, or greater than, the amount of water required by a 500-dwelling unit project. (DWR, 2003)

The Project proposes 168 single-family homes, 14.5 acres of commercial uses, and 8.3 acres of parkland. As shown below in Table 4.18-7, *Estimated Project Water Generation*, the Project would result in a total demand of approximately 126,870 gpd of water. By contrast, development of the 72.5-acre Project site with 500 dwelling units would result in a demand for 181,250 gpd of water (72.5 ac x 2,500 gpd/ac = 181,250 gpd) (Dexter Wilson, 2018a, Table 2-1). Thus, the Project would result in a demand for water that is less than what would be required by a 500-dwelling unit project, and a water supply assessment was therefore not required for the proposed Project.

### ❑ CA. Water Code § 10610 et seq. (Senate Bill 901)

Signed into law on October 16, 1995, Senate Bill (SB) 901 required every urban water supplier to identify as part of its urban water management plan, the existing and planned sources of water available to the supplier over a prescribed 5-year period. The code requires the water service purveyor to assess the projected water demand associated with a proposed project under environmental review. Later provisions of SB 901 required compliance in the event that the proposed Project involved the adoption of a specific plan, amendment to, or revision of the land use element of a general plan or specific plan that would result in a net increase in the state population density. Upon completion of the water assessment, cities and counties may agree or disagree with the conclusions of the water service purveyors, but cannot approve projects in the face of documented water shortfalls without first making certain findings.

❑ Executive Order B-29-15

Executive Order (EO) B-29-15 ordered the State Water Resources Control Board (SWRCB) to impose restrictions to achieve a 25-percent reduction in potable urban water usage through February 28, 2016; directed the California Department of Water Resources (DWR) to lead a statewide initiative, in partnership with local agencies, to collectively replace 50 million square feet of lawns and ornamental turf with drought tolerant landscapes; and directed the California Energy Commission to implement a statewide appliance rebate program to provide monetary incentives for the replacement of inefficient household devices. (DWR, 2018a)

❑ Executive Order B-37-16

Signed on May 9, 2016, EO B-37-16 established a new water use efficiency framework for California. The order bolstered the state's drought resilience and preparedness by establishing longer-term water conservation measures that include permanent monthly water use reporting, new urban water use targets, reducing system leaks and eliminating clearly wasteful practices, strengthening urban drought contingency plans, and improving agricultural water management and drought plans. (DWR, 2018a)

❑ Executive Order B-40-17

Signed on April 7, 2017, EO B-40-17 ended the drought state of emergency in all California counties except Fresno, Kings, Tulare, and Tuolumne, where emergency drinking water projects will continue to help address diminished groundwater supplies. It maintains water reporting requirements and prohibitions on wasteful practices. The order was built on actions taken in Executive Order B-37-16, which remains in effect. In a related action, state agencies, including the Department of Water Resources (DWR), released a plan to continue making water conservation a way of life. (DWR, 2018a)

❑ Sustainable Groundwater Management Act (SGMA)

The Sustainable Groundwater Management Act (SGMA) established a new structure for managing California's groundwater resources at a local level by local agencies. SGMA required, by July 1, 2017, the formation of locally-controlled groundwater sustainability agencies (GSAs) in the State's high- and medium-priority groundwater basins and subbasins (basins). A GSA is responsible for developing and implementing a groundwater sustainability plan (GSP) to meet the sustainability goal of the basin to ensure that it is operated within its sustainable yield, without causing undesirable results. The GSP Emergency Regulations for evaluating GSPs, the implementation of GSPs, and coordination agreements were adopted by DWR and approved by the California Water Commission on May 18, 2016. (DWR, 2018b)

*2. Applicable Solid Waste Regulations*

❑ California Solid Waste Integrated Waste Management Act (AB 939, 1989)

The Integrated Waste Management Act (IWMA) established an integrated waste management hierarchy to guide the California Integrated Waste Management Board (CIWMB) and local agencies in implementation, in order of priority: (1) source reduction, (2) recycling and composting, and (3) environmentally safe transformation and land disposal (it should be noted that the CIWMB no longer exists, and its duties have been assumed by CalRecycle). As part of the IWMA, the CIWMB was given a purpose to mandate the reduction of disposed waste. (CalRecycle, 1997a) The IWMA also required:

- the establishment of a task force to coordinate the development of city Source Reduction and Recycling Elements (SRREs) and a countywide siting element. (CalRecycle, 1997a)
- each city, by July 1, 1991, to prepare, adopt and submit a SRRE to the county which includes the following components: waste characterization; source reduction; recycling; composting; solid waste facility capacity; education and public information; funding; special waste (asbestos, sewage sludge, etc.); and household hazardous waste. (CalRecycle, 1997a)
- each county, by January 1, 1991, to prepare a SRRE for its unincorporated area, with the same components described above, and a countywide siting element, specifying areas for transformation or disposal sites to provide capacity for solid waste generated in the jurisdiction which cannot be reduced or recycled for a 15-year period.
- each county to prepare, adopt, and submit to the Board an Integrated Waste Management Plan (IWMP), which includes all of the elements described above. (CalRecycle, 1997a)
- each city or county plan to include an implementation schedule which shows: diversion of 25 percent of all solid waste from landfill or transformation facilities by January 1, 1995 through source reduction, recycling, and composting activities; and, diversion of 50 percent of all solid waste by January 1, 2000 through source reduction, recycling, and composting activities. (CalRecycle, 1997a)
- the CIWMB to review the implementation of each SRRE at least once every two years. (CalRecycle, 1997a)
- The IWMA required the CIWMB, in conjunction with an inspection conducted by a Lead Enforcement Agency (LEA), to conduct at least one inspection per year of each solid waste facility in the state. (CalRecycle, 1997a)

Additionally, the IWMA established a comprehensive statewide system of permitting, inspections, enforcement, and maintenance for solid waste facilities. (CalRecycle, 1997a)

### ❑ Waste Reuse and Recycling Act (AB 1327)

The Waste Reuse and Recycling Act (WRRA) required the CIWMB to approve a model ordinance for adoption by any local government for the transfer, receipt, storage, and loading of recyclable materials in development projects by March 1, 1993. The WRRA also required local agencies to adopt a local ordinance by September 1, 1993 or allow the model ordinance to take effect. The WRRA requires all development projects that are commercial, industrial, institutional, or marina in nature and where solid waste is collected and loaded, to provide an adequate area for collecting and loading recyclable materials over the lifetime of the project. The area is required to be provided before building permits are issued. (CalRecycle, 1997b)

### ❑ Mandatory Commercial Recycling Program (AB 341)

Assembly Bill (AB) 341 (Chapter 476, Statutes of 2011 [Chesbro, AB 341]) directed CalRecycle to develop and adopt regulations for mandatory commercial recycling. CalRecycle initiated formal rulemaking with a 45-day comment period beginning Oct. 28, 2011. The final regulation was approved by the Office of Administrative Law on May 7, 2012. AB-341 was designed to help meet California's recycling goal of 75% by the year 2020. AB 341 requires all commercial businesses and public entities that generate 4 cubic yards

or more of waste per week to have a recycling program in place. In addition, multi-family apartments with five or more units are also required to form a recycling program. (CalRecycle, 2018)

- ❑ Assembly Bill 1826 (AB 1826)

Assembly Bill 1826 (AB 1826) requires businesses to recycle their organic waste on and after April 1, 2016, depending on the amount of waste they generate per week. This law also requires that on and after January 1, 2016, local jurisdictions across the state implement an organic waste recycling program to divert organic waste generated by businesses, including multifamily residential dwellings that consist of five or more units (please note, however, that multifamily dwellings are not required to have a food waste diversion program). Organic waste (also referred to as organics throughout this resource) means food waste, green waste, landscape and pruning waste, nonhazardous wood waste, and food-soiled paper waste that is mixed in with food waste. This law phases in the mandatory recycling of commercial organics over time, while also offering an exemption process for rural counties. In particular, the minimum threshold of organic waste generation by businesses decreases over time, which means an increasingly greater proportion of the commercial sector will be required to comply.

- ❑ 2016 California Green Building Standards Code (CAL Green; Part 11 of Title 24, California Code of Regulations)

CALGreen became effective January 1, 2017, and is applicable to the planning, design, operation, construction, use, and occupancy of every newly constructed building or structure throughout the State of California (including residential structures and elementary schools). § 5.408.3 of CALGreen requires that 100 percent of trees, stumps, rocks, and associated vegetation and soils resulting from land clearing shall be reused or recycled. For a phased project, such material may be stockpiled on-site until the storage site is developed.

### *3. Applicable Energy Conservation Regulations*

- ❑ California Energy Efficiency Standards for Residential and Nonresidential Buildings (24 CA. Code Regs. 6)

The Building Energy Efficiency Standards were first adopted in 1976 and have been updated periodically since then as directed by statute. In 1975 the Department of Housing and Community Development adopted rudimentary energy conservation standards under their State Housing Law authority that were a precursor to the first generation of the Standards. However, the Warren-Alquist Act was passed one year earlier with explicit direction to the Energy Commission (formally titled the State Energy Resources Conservation and Development Commission) to adopt and implement the Standards. The Energy Commission's statute created separate authority and specific direction regarding what the Standards are to address, what criteria are to be met in developing the Standards, and what implementation tools, aids, and technical assistance are to be provided. (CEC, 2015)

The Standards contain energy and water efficiency requirements (and indoor air quality requirements) for newly constructed buildings, additions to existing buildings, and alterations to existing buildings. Public Resources Code Sections 25402 subdivisions (a)-(b) and 25402.1 emphasize the importance of building design and construction flexibility by requiring the Energy Commission to establish performance standards, in the form of an "energy budget" in terms of the energy consumption per square foot of floor space. For this reason,

the Standards include both a prescriptive option, allowing builders to comply by using methods known to be efficient, and a performance option, allowing builders complete freedom in their designs provided the building achieves the same overall efficiency as an equivalent building using the prescriptive option. Reference Appendices are adopted along with the Standards that contain data and other information that helps builders comply with the Standards. (CEC, 2015)

The 2016 update to the Building Energy Efficiency Standards focuses on several key areas to improve the energy efficiency of newly constructed buildings and additions and alterations to existing buildings. The most significant efficiency improvements to the residential Standards include improvements for attics, walls, water heating, and lighting. The most significant efficiency improvements to the nonresidential Standards include alignment with the ASHRAE 90.1 2013 national standards. New efficiency requirements for elevators and direct digital controls are included in the nonresidential Standards. The 2016 Standards also include changes made throughout all of its sections to improve the clarity, consistency, and readability of the regulatory language. (CEC, 2015)

Public Resources Code Section 25402.1 also requires the Energy Commission to support the performance standards with compliance tools for builders and building designers. The Alternative Calculation Method (ACM) Approval Manual adopted by regulation as an appendix of the Standards establishes requirements for input, output, and calculational uniformity in the computer programs used to demonstrate compliance with the Standards. From this, the Energy Commission develops and makes publicly available free, public domain building modeling software in order to enable compliance based on modeling of building efficiency and performance. The ACM Approval Manual also includes provisions for private firms seeking to develop compliance software for approval by the Energy Commission, which further encourages flexibility and innovation. (CEC, 2015)

### ❑ California Solar Rights and Solar Shade Control Acts

The Solar Rights Act sets parameters for establishing solar easements, prohibits ordinances and private covenants which restrict solar systems, and requires communities to consider passive solar and natural heating and cooling opportunities in new construction. This Act is applicable to all California cities and counties. California's solar access laws appear in the state's Civil, Government, Health and Safety, and Public Resources Codes. California Pub Res Code § 25980 sets forth the Solar Shade Control Act, which encourages the use of trees and other natural shading except in cases where the shading may interfere with the use of active and passive solar systems.

### ❑ Alternative Fuels Plan

On September 24, 2009, the California Air Resources Board (CARB) adopted amendments to the "Pavley" regulations that reduce greenhouse gas (GHG) emissions in new passenger vehicles from 2009 through 2016. These amendments are part of California's commitment toward a nation-wide program to reduce new passenger vehicle GHGs from 2012 through 2016. CARB's September amendments will cement California's enforcement of the Pavley rule starting in 2009 while providing vehicle manufacturers with new compliance flexibility. The amendments will also prepare California to harmonize its rules with the federal rules for passenger vehicles. (CARB, 2017)

The U.S. EPA granted California the authority to implement GHG emission reduction standards for new passenger cars, pickup trucks, and sport utility vehicles On June 30, 2009. The first California request to implement GHG standards for passenger vehicles, known as a waiver request, was made in December 2005, and was denied by the U.S. EPA in March 2008. That decision was based on a finding that California's request to reduce GHG emissions from passenger vehicles did not meet the Clean Air Act requirement of showing that the waiver was needed to meet "compelling and extraordinary conditions." (CARB, 2017)

The ARB's Board originally approved regulations to reduce GHGs from passenger vehicles in September 2004, with the regulations to take effect in 2009. These regulations were authorized by the 2002 legislation Assembly Bill 1493 (Pavley). (CARB, 2017)

The regulations had been threatened by automaker lawsuits and were stalled by the U.S. EPA's delay in reviewing and then initially denying California's waiver request. The parties involved entered a May 19, 2009 agreement to resolve these issues. With the granting of the waiver on June 30, 2009, it is expected that the Pavley regulations will reduce GHG emissions from California passenger vehicles by about 22 percent in 2012 and about 30 percent in 2016, all while improving fuel efficiency and reducing motorists' costs. (CARB, 2017)

The CARB has adopted a new approach to passenger vehicles – cars and light trucks – by combining the control of smog-causing pollutants and greenhouse gas emissions into a single coordinated package of standards. The new approach also includes efforts to support and accelerate the numbers of plug-in hybrids and zero-emission vehicles in California. (CARB, 2017)

### *C. Local Regulations*

#### *1. Applicable Water Supply and Wastewater Regulations*

- ❑ Lake Elsinore Municipal Code (LEMC) – Title 16, Chapter 16.34, Chapter 16.52 and Chapter 16.52

Section 16.34.040 in Chapter 16.34 (Requirements for Building Permit Issuance) requires that prior to the issuance of a building permit, utilities such as water and sewer, when requiring extensions to serve any parcel to be developed, shall be constructed by the owner's licensed contractor and that parcels shall be deemed served by City water and sewer if the distance in feet from the closest property line to the facility to be extended shall be 200 times the number of lots to be developed.

Chapter 16.52 (Improvements – Water Facilities) requires that all required water storage and distribution facilities shall be installed by the land divider to serve each lot within the land division and shall be of such size and design to adequately satisfy the domestic and fire demands. All water facilities shall be installed in accordance with City standards.

Chapter 16.56 (Improvements – Sanitary Sewer Facilities) requires that all sewer facilities shall be installed in accordance with the City standards and that the sewer facilities shall be of such size and design to adequately serve each lot within the land division and all existing or future tributary areas. Where sanitary sewer service is not available, a private sewage disposal system for each lot as required by the ordinance establishing standards for private sewage disposal systems shall be constructed.

❑ Lake Elsinore Municipal Code (LEMC) – Title 19, Chapter 19.08

Chapter 19.08 (Water Efficient Landscaping Requirements) of the Lake Elsinore Municipal Code was adopted in order to implement the requirements necessary to meet the State of California Efficiency in Landscaping Act and the California Code of Regulations Title 23, Division 2, Chapter 2.7. The purpose and intent of this Chapter is also to:

- establish provisions for water management practices and water waste prevention;
- establish a structure for planning, designing, installing, maintaining, and managing water efficient landscapes in new construction and rehabilitated projects;
- reduce the water demands from landscapes without a decline in landscape quality or quantity;
- retain flexibility and encourage creativity through appropriate design;
- assure the attainment of water efficient landscape goals by requiring that landscapes not exceed a maximum water demand of 70 percent of their reference evapotranspiration (ETo) or any lower percentage as may be required by water purveyor policy or state legislation, whichever is stricter;
- eliminate water waste from overspray and/or runoff; and
- achieve water conservation by raising the public awareness of the need to conserve water through education and motivation to embrace an effective water demand management program.

### *2. Applicable Solid Waste Regulations*

❑ Lake Elsinore Municipal Code (LEMC) – Title 14, Chapter 14.12

The purpose and intent of Chapter 14.12 (Construction Waste and Demolition Waste Management) of the Lake Elsinore Municipal Code is to "reduce the amount of waste generated within the City of Lake Elsinore and ultimately disposed of in landfills, by requiring the project applicant for every project covered by the chapter to divert a minimum of 50 percent of the construction and demolition debris resulting from that project, in compliance with State and local statutory goals and policies, and to create a mechanism to secure compliance with the stated diversion requirements." (Section 14.12.010) The diversion of a minimum 50 percent of construction and demolition debris will be imposed as a condition of approval on permits for each covered project. Covered projects include residential additions of 1,500 square feet or more of gross floor area, new detached and attached single-family residential dwellings, tenant improvements affecting 1,500 square feet or more of gross floor area, new commercial buildings, demolition of 1,000 or more square feet of gross floor area, operations that result in the export of earth, soil, rocks, gravel or other materials and all City public works and City public construction projects.

## 4.18.3 BASIS FOR DETERMINING SIGNIFICANCE

The proposed Project would result in a significant impact to utilities and service systems if the Project or any Project-related component would:

*a. Require or result in the relocation or construction of new or expanded water, wastewater treatment, or storm water drainage, electric power, natural gas, or telecommunication facilities, the construction or relocation of which could cause significant environmental effects;*

*b. Have insufficient water supplies available to serve the Project and reasonably foreseeable future development during normal, dry, and multiple dry years;*

*c. Result in a determination by the wastewater treatment provider, which serves or may serve the project, that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments;*

*d. Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals; or*

*e. Fail to comply with federal, state, and local management and reduction statutes and regulations related to solid waste.*

The above listed thresholds are derived directly from Section XIX of Appendix G to the CEQA Guidelines and address typical adverse effects associated with utilities and service systems (OPR, 2018).

## 4.18.4 IMPACT ANALYSIS

| | |
|---|---|
| ***Threshold a.*** | ***Would the Project require or result in the relocation or construction of new or expanded water, wastewater treatment, or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction of which could cause significant environmental effects?*** |
| ***Threshold c.*** | ***Would the Project result in a determination by the wastewater treatment provider, which serves or may serve the project, that it has inadequate capacity to serve the project's projected demand in addition to the provider's existing commitments?*** |

### *A. Water Treatment*

Water service to the Project site would be provided via two points of connection to existing 16-inch water lines located within El Toro Road. The Project proposes a 20-inch water main within Nichols Road. A 12-inch water line would be constructed in "A" Street on-site to connect to the proposed 20-inch water main in Nichols Road. An additional 8-inch water line would be constructed in "B" Street on-site to connect to the existing 16-inch water main in El Toro Road. 8-inch water lines would be constructed in other local roadways on-site, creating a looped water system between the proposed 20-inch water line proposed in Nichols Road and the existing 16-inch line in El Toro Road. Environmental impacts associated with the construction of water infrastructure as necessary to connect to the EVMWD's existing water system are inherent to the Project's construction phase and have been evaluated throughout this EIR. Where construction-related impacts are identified, feasible mitigation measures have been identified to reduce impacts to the maximum feasible extent. There are no environmental impacts that would be unique to the installation of the proposed water infrastructure. Thus, although the Project would require the construction of new water conveyance facilities, impacts associated with the construction of water facilities would be less than significant with implementation of the mitigation measures identified throughout this EIR.

### *B. Wastewater Treatment*

As discussed in EIR subsection 3.2.3.F, the Project proposes two alternatives to provide service to the Project site, as summarized below:

- Sewer Option #1: Sewer Option #1 proposes to convey flows from the portions of the site north of Stovepipe Creek towards a proposed sewer lift station within the proposed commercial site in Planning Area 7 via 8-inch sewer lines. Flows would then be conveyed via a 4-inch force main within "J" Street, "E" Street, and "H" Street to "B" Street, where flows would be conveyed south to a proposed 8-inch gravity sewer within "B" Street, located near the southern boundary of Planning Area 1. Flows would then be combined with flows from Planning Area 1 and conveyed through an off-site 8-inch sewer line proposed in El Toro Road towards an existing 8-inch sewer main that conveys flows to the south.

- Sewer Option #2: Under the second alternative, sewer flows from the portions of the site located north of Stovepipe Creek would be conveyed via proposed 8-inch sewer mains towards the southwest corner of the proposed commercial site in Planning Area 7. A new 12-inch sewer main would be constructed beneath I-15 using jack and bore construction and would connect to an existing 12-inch sewer main that increases and becomes a 30-inch sewer main in Collier Avenue. Sewer flows from the portion of the site located south of Stovepipe Creek would be conveyed via proposed an 8-inch sewer main towards the southeast corner of the Project site. Flows would then be conveyed through an off-site 8-inch sewer main proposed in El Toro Road towards an existing 8-inch sewer main that conveys flows to the south through existing 12-inch sewer main. Flows from both Project locations would combine with existing flows and would be conveyed to an existing sewer lift station located in the southern portions of the existing outlet mall. Flows then would travel via an existing 10-inch force main to an existing 18-inch sewer main located within Collier Avenue, near the intersection of Riverside Drive and Collier Avenue.

Environmental impacts associated with the construction of sewer infrastructure as necessary to connect to the EVMWD's existing sewer system are inherent to the Project's construction phase and have been evaluated throughout this EIR. Where construction-related impacts are identified, feasible mitigation measures have been identified to reduce impacts to the maximum feasible extent. There are no environmental impacts that would be unique to the installation of the proposed sewer infrastructure. Thus, although the Project would require the construction of new wastewater conveyance facilities, impacts associated with the construction of sewer facilities would be less than significant with implementation of the mitigation measures identified throughout this EIR.

Table 4.18-6, *Estimated Project Wastewater Generation*, provides a summary of the Project's anticipated wastewater generation. As shown, the residential and commercial uses proposed by the Project would result in an average wastewater treatment demand of approximately 36,003 gpd.

**Table 4.18-6 Estimated Project Wastewater Generation**

| Land Use | Acreage | Wastewater Duty Factor | Wastewater Demand |
|---|---|---|---|
| Single-Family Residential (4-6 du/ac) | 31.1 | 780 gpd/ac | 24,258 gpd |
| General Commercial | 14.5 | 810 gpd/ac | 11,745 gpd |
| **Totals:** | **45.6** | -- | **36,003 gpd** |

(Dexter Wilson, 2018b, Table 2-1)

Wastewater flows generated by the Project would be conveyed to the EVMWD Regional WRF, located approximately 1.2 mile south of the Project site. The Regional WRF has an average flow capacity of 8 mgd and a peak flow capacity of 17.6 mgd. The EVMWD reports that from 2012-2014, the maximum daily flows were estimated at up to 7.57 mgd. (EVMWD, 2016b, p. 4-18). As noted above, the Project would result in a demand for approximately 36,003 gpd of treatment capacity, or 0.04 mgd. When combined with the reported peak daily flow from 2012-2014 of 7.57 mgd, the total maximum flows with the Project would be approximately 7.61 mgd, which is below the average flow capacity of 8 mgd and far below the peak flow capacity of 17.6 mgd for the Regional WRF. As such, it can be concluded that there is adequate capacity at the Regional WRF to treat wastewater generated by the Project. Accordingly, the Project would not require or result in the construction of new wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects, nor would the Project result in a determination by the EVMWD that it has inadequate capacity to serve the project's projected demand in addition to its existing commitments; therefore, impacts to wastewater treatment facilities would be less than significant.

### *C. Stormwater Drainage Facilities*

As discussed in Subsection 3.0, the Project proposes to construct two water quality/detention basins on site to capture flows and provide storm water attenuation and water quality treatment, with storm water drainage lines proposed throughout the Project site within areas proposed for residential and/or commercial development. Construction of the on-site drainage infrastructure is inherent to the Project's construction phase, and there are no impacts to the environment that would result from construction of on-site drainage infrastructure that has not already been evaluated and disclosed throughout this EIR. Where significant construction-related impacts are identified, feasible mitigation measures are identified to reduce impacts to the maximum feasible extent. Accordingly, impacts due to the construction of stormwater drainage facilities would be less than significant.

### *D. Electrical Power, Natural Gas, and Telecommunications*

Construction of the proposed Project would require connections to existing electricity, natural gas, and telecommunication facilities. The Project area already is served by these utilities, and it is anticipated that proposed improvements to provide service to the Project site would occur within existing improved rights-of-way off-site, or on-site within areas already planned for impact and development by the Project. The proposed connections to these utilities are inherent to the Project's construction phase, which has been evaluated throughout this EIR. Where significant construction-related impacts are identified, feasible mitigation measures are identified to reduce impacts to the maximum feasible extent. There are no components of the Project's proposed utility connections that would result in significant environmental effects not already addressed by this EIR. Accordingly, impacts would be less than significant.

***Threshold b.*** ***Would the Project be served by sufficient water supplies from existing entitlements and resources, or are new or expanded entitlements needed?***

Table 4.18-7, *Estimated Project Water Generation*, provides a calculation of the Project's anticipated water demand. As shown, the Project would generate a demand for approximately 126,870 gpd.

**Table 4.18-7 Estimated Project Water Generation**

| Land Use | Acreage | Water Duty Factor | Water Demand |
|---|---|---|---|
| Single-Family Residential (4-6 du/ac) | 31.1 | 2,300 gpd/ac | 71,530 gpd |
| General Commercial | 14.5 | 2,500 gpd/ac | 36,250 gpd |
| Parks | 8.3 | 2,300 gpd/ac | 19,090 gpd |
| **Totals:** | **45.6** | -- | **126,870 gpd** |

Note: gpd = gallons per day; ac = acre.
(Dexter Wilson, 2018a, Table 2-1)

The UWMP bases its growth assumptions, in part, based on the land use designations of General Plans within the EVMWD's service area. At the time the EVMWD published its 2015 Urban Water Management Plan in June 2016, the City of Lake Elsinore General Plan designated the northern 45.4 acres of the Project site for "Specific Plan" pursuant to the Alberhill Ranch Specific Plan, which in turn designates the northern 45.4 acres of the Project site for "Commercial – Specific Plan" land uses. The southern 27.1 acres of the Project site are designated by the General Plan for "General Commercial" land uses. Thus, the UWMP assumed buildout of the entire Project site with commercial land uses. Based on the water duty factors presented in Table 4.18-7, the UWMP assumed that development of the 72.5-acre Project site with commercial land uses would result in a demand for approximately 181,250 gpd (72.5 ac x 2,500 gpd/ac = 181,250 gpd). Thus, the UWMP assumed the Project site would result in a demand for 54,380 gpd more water than the demand that would be generated by the proposed Project.

As previously shown in Table 4.18-4 and Table 4.18-5, the EVMWD projects that it will have sufficient water supplies even during single and multiple dry years to meet the projected demand within its district through year 2040. Because the Project would result in less demand for potable water than is accounted for by the UWMP, it can be concluded that the EVMWD would have sufficient water supplies to serve the Project based on existing entitlements and resources. Additionally, the Project would not require or result in the construction of new water treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects. Therefore, impacts associated with the Project's water demand would be less than significant.

***Threshold d.*** ***Would the Project generate solid waste in excess of local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?***

The proposed Project has the potential to exceed the daily or total solid waste capacity of County landfills during both construction and operation. Each is discussed below.

### *Solid Waste Impacts During Construction*

Table 4.18-8, *Estimated Construction Solid Waste Generation*, provides an estimate of the amount of construction debris that would be generated by the Project during each phase of construction, based on residential and non-residential construction waste generation factors provided by the U.S. Environmental Protection Agency (EPA). Table 4.18-8 does not account for the construction of site improvements other than buildings. Proposed non-building features (e.g., roads, utilities, etc.) would produce nominal amounts of construction waste that would not substantially exceed the solid waste totals (by phase) listed in Table 4.18-8.

**Table 4.18-8 Estimated Construction Solid Waste Generation**

| Phase | Land Use | Construction Rate[1] | Estimated Building Size | Solid Waste Generation Rate | Total | |
|---|---|---|---|---|---|---|
| | | | | | LBS/Day | Tons/Day |
| Phase 1 | Residential | 0.13 dwelling units/day | 3,150 s.f.[2] | 4.39 lbs/s.f. | 1,969 | 1.0 |
| Phase 2 | Residential | 0.32 dwelling units/day | 3,387 s.f.[2] | 4.39 lbs/s.f. | 4,758 | 2.4 |
| Phase 3 | Commercial/Non-Residential | 223 s.f./day | 121,000 s.f.[3] | 4.34 lbs/s.f. | 968 | 0.5 |

1. Based on information presented in EIR Subsection 3.3.8, *Construction Details*. Estimated duration of Phase 1 building construction (December 28, 2019 to December 11, 2020) would consist of 251 working days, Phase 2 (June 1, 2020 to December31, 2021) would consist of a total of 415 working days, and Phase 3 (December 9, 2021 to January 5, 2024) would consist of a total of 542 working days.
2. Estimated average dwelling unit size based on size of lots and maximum lot coverage proposed within the Nichols Ranch Specific Plan. In order to provide "worst-case" estimates, the maximum lot coverage of 70% was used for 4,500 s.f. lots within Planning Areas 1, 2, and 3 (77 total dwelling units), and a maximum lot coverage of 70% for 5,000 s.f. lots within Planning Areas 4, 5, and 6 (91 total dwelling units). For Phase 2, the average dwelling unit size was calculated based on 43 units on 4,500 s.f. lots and 91 units on 5,000 s.f. lots.
3. Commercial square footage assumes 47,400 s.f. of hotel, 3,000 s.f. gas station retail, 5,500 s.f. of fast food, 9,400 s.f. of restaurant space, 4,400 s.f. of commercial retail, 8,000 s.f. health and fitness, and 43,000 s.f. of office uses.
4. Source: U.S. Environmental Protection Agency. *Estimating 2003 Building-Related Construction and Demolition Materials Amounts*. Available online at: https://www.epa.gov/smm/estimating-2003-building-related-construction-and-demolition-materials-amounts. Accessed: August 15, 2018.

As presented in Table 4.18-8, the Project would generate approximately 1.0 tpd during Phase 1 building construction, 2.4 tpd during Phase 2 building construction, and 0.5 tpd during Phase 3 building construction. However, Phases 1 and 2 would overlap, as would Phases 2 and 3. The worst-case solid waste generation would occur when Phases 1 and 2 overlap, which would result in the generation of approximately 3.4 tpd of construction solid waste.

Solid waste generated during construction of the Project would be transported to the Perris Transfer Station/Material Recovery Facility (TS/MRF). The Project's maximum daily waste generation of 3.4 tpd would represent approximately 0.11% of the daily disposal capacity of the TS/MRF (3,000 tpd) (CalRecycle, n.d.). Given the estimated volume of solid waste generated by the Project on a daily basis during Project construction, it is anticipated that the TS/MRF would have sufficient capacity to accept solid waste to be disposed of by the Project.

Solid waste conveyed to the Perris TS/MRF ultimately would be disposed of at the El Sobrante Landfill, Badlands Landfill, and/or Lamb Canyon Landfill. In 2017, the El Sobrante Landfill received an average of 10,607 tpd out of a maximum daily total of 16,054 tpd; thus, the average remaining daily capacity at the El Sobrante Landfill would be 5,447 tpd. The estimated worst-case 3.4 tpd that would be generated during construction of Phases 1 and 2 of the Project would represent only 0.06% of the remaining average daily disposal capacity at the El Sobrante Landfill. Likewise, the Badlands Landfill in 2017 received an average of 2,758 tpd of a total 4,500 tpd daily disposal capacity, leaving a remaining average daily disposal capacity of 1,742 tpd. The estimated worst-case 3.4 tpd that would be generated during construction of Phases 1 and 2 of the Project would represent only 0.20% of the remaining daily disposal capacity at the Badlands Landfill. Furthermore, the Lamb Canyon Landfill received a daily average of 1,878 tpd out of a daily disposal capacity of 5,000 tpd, leaving a remaining average daily disposal capacity of 3,122 tpd. The estimated worst-case 3.4 tpd that would be generated during construction of Phases 1 and 2 of the Project would represent only 0.11% of the remaining daily disposal capacity at the Lamb Canyon Landfill. (RCDWR, 2018)

Given the estimated solid waste quantity generated by the Project on a daily basis during construction, it is estimated that the Perris TS/MRF, El Sobrante Landfill, Lamb Canyon Landfill, and Badlands Landfill would have sufficient daily capacity to accept the construction waste generated by each phase of the proposed Project, including waste generated when construction activities associated with Phases 1 and 2 of the Project overlap. Furthermore, all applicants for proposed development within the City are required to submit a Waste Recycling Plan (WRP) pursuant to Lake Elsinore Municipal Code Chapter 14.12 (Construction and Demolition Waste Management). To verify AB 341 compliance for recycling of construction materials, the City requires accurate records for construction material recycling and solid waste disposal. According to City procedures, the Project Applicant would be required to post a security deposit to ensure implementation of the WRP. Mandatory compliance with the WRP requirements would further reduce Project impacts to solid waste by ensuring that 50% of the nonhazardous construction waste is recycled or reused.

### *Solid Waste Impacts During Operation*

As shown in Table 4.18-9, *Project Solid Waste Generation*, buildout and occupancy of the Project is estimated to produce approximately 1.4 tpd of solid waste or approximately 511 tpy. Per the Riverside Countywide Integrated Waste Management Plan (CIWMP), which applies to the Project, up to 50 percent of its solid waste would need to be diverted from area landfills. In conformance with the CIWMP, the Project Applicant is required to work with future contract refuse haulers to implement recycling and waste reduction programs for solid wastes.

Solid waste generated by the Project would be transported to the Perris TTS/MRF. At full buildout, waste generated by the Project would represent approximately 0.05% of the daily disposal capacity of the TS/MRF (3,000 tpd) (CalRecycle, n.d.). Given the estimated volume of solid waste generated by the Project on a daily basis during the buildout condition, it is anticipated that the Perris TS/MRF would have sufficient capacity to accept solid waste to be disposed of by the Project. As noted above, the CIWMP would require that up to 50 percent of the solid waste be diverted from area landfills, which would further ensure the Project's solid waste generation does not exceed the capacity at the TS/MRF.

Table 4.18-9 Project Solid Waste Generation

| Land Use | Units/Square Footage[1] | Solid Waste Generation Factor | Daily Solid Waste Generation (tpd) | Annual Solid Waste Generation (tpy) |
|---|---|---|---|---|
| Residential | 168 du | 12.23 lb/du/day | 1.0 | 365 |
| Commercial/Office | 121,000 s.f. | 6 lb/1,000 s.f./day | 0.4 | 146 |
| | | **Totals:** | **1.4 tpd** | **511 tpy** |

1. Commercial square footage assumes 47,400 s.f. of hotel, 3,000 s.f. gas station retail, 5,500 s.f. of fast food, 9,400 s.f. of restaurant space, 4,400 s.f. of commercial retail, 8,000 s.f. health and fitness, and 43,000 s.f. of office uses.
2. du = dwelling unit; s.f. = square feet; tpd = tons per day; tpy = tons per year.

(Lake Elsinore, 2011b, Table 3.16-12)

Waste from the Perris TS/MRF would be ultimately disposed of at the El Sobrante Landfill, Lamb Canyon Landfill, and/or Badlands Landfill. As previously indicated, the El Sobrante Landfill has an average remaining daily capacity of 5,447 tpd, the Badlands Landfill has an average remaining daily capacity of 1,742 tpd, and the Lamb Canyon Landfill has an average remaining daily capacity of 3,122 tpd. The Project's 1.4 tpd would represent approximately 0.03% of the average remaining daily capacity at the El Sobrante Landfill, 0.08% of the average remaining daily capacity at the Badlands Landfill, and 0.04% of the average remaining daily capacity at the Lamb Canyon Landfill. Because the Project would generate a relatively small amount of solid waste per day as compared to the permitted capacities for these three landfills, it is anticipated that these landfill facilities would have sufficient daily capacity to accept solid waste generated by the Project.

### *Summary of Project Solid Waste Impacts*

As indicated above, regional solid waste facilities would have adequate capacity to handle solid waste generated by the Project's construction and operational phases. Accordingly, impacts would be less than significant.

***Threshold e.*** ***Would the Project fail to comply with federal, state, and local management and reduction statutes and regulations related to solid waste?***

The Project would be required to comply with City and County waste reduction programs pursuant to the State's Integrated Waste Management Act and the Riverside County CIWMP (which applies to land uses within the City of Lake Elsinore). Project-generated solid waste would be conveyed to one of several landfills operated by the RCDWR or Waste Management of the Inland Empire (WMIE). These existing landfills are required to comply with federal, state, and local statues and regulations related to solid waste. Compliance with federal, state, and local statutes and regulations would reduce the amount of solid waste generated by the Project and diverted to landfills, which in turn would aid in the extension of the life of affected disposal sites. The Project would comply with all applicable solid waste statutes and regulations; as such, impacts would be less than significant.

## 4.18.5 CUMULATIVE IMPACT ANALYSIS

This cumulative impact analysis considers development of the proposed Project in conjunction with other development projects and planned development in the vicinity of the Project site, including buildout of the City of Lake Elsinore General Plan Land Use Plan and the land use plans of surrounding jurisdictions. For the analysis of water and sewer service, the cumulative study area is the EVMWD service area. For the issue of solid waste and landfills, the cumulative study area comprises western Riverside County, as these areas all are served by the same landfills that would be served by the Project.

### *A. Wastewater Treatment and Capacity*

Cumulatively-considerable impacts associated with the Project's proposed connections to existing wastewater facilities have been evaluated throughout this EIR, and feasible mitigation measures have been identified where necessary to reduce cumulatively-considerable impacts to the maximum feasible extent. There are no components of the Project's proposed sewer connections that would result in cumulatively-considerable impacts not already addressed by this EIR. Accordingly, cumulatively-considerable impacts associated with the Project's proposed sewer connections would be less than significant.

As previously indicated, the Project would generate approximately 36,003 gpd of wastewater requiring treatment. The Project, when considered in the context of other cumulative developments within the EVMWD service area, would incrementally contribute to a reduction in available capacity at the EVMWD Regional WRF. However, the EVMWD adopted a Sewer System Master Plan in 2016, which includes an analysis of future wastewater treatment demand within the EVMWD service area for each of five planning horizons (2020, 2025, 2030, 2035, and 2040). The Sewer System Master Plan identifies existing development, known development projects, and future development based on buildout of the various general plan land use plans within the EVMWD service area. The Sewer System Master Plan also includes a sewer system capacity evaluation, which identifies projected capacity deficiencies over the planning horizon years and determined that all projected deficiencies are addressed by improvements and projects presented in the EVMWD's proposed Capital Improvement Program (CIP). (EVMWD, 2016b)

At the time the Sewer System Master Plan was adopted, the Project site was designated for commercial development. Based on the wastewater duty factors presented in Table 4.18-6, the Sewer Master Plan would have assumed that development of the 72.5-acre Project site with commercial land uses would generate a demand for approximately 58,725 gpd of wastewater treatment capacity (72.5 acres x 810 gpd/ac = 58,725 gpd), or approximately 22,722 gpd more than the wastewater treatment capacity demands associated with the proposed Project (refer to Table 4.18-6). Therefore, because the EVMWD Sewer System Master Plan identifies a CIP program to accommodate growth within its service area through year 2040, and because the Project would generate less wastewater than was assumed in the Sewer System Master Plan for the site, the Project would result in a less-than-cumulatively considerable impact due to the need for construction or expansion of wastewater treatment facilities. Additionally, the Project would result in less-than-cumulatively considerable impacts due to a cumulative exceedance of the EVMWD's wastewater treatment capacity.

### B. *Water Supply and Treatment*

Existing and projected development within EVMWD's service area would create a demand for additional water supplies. The EVMWD 2015 UWMP estimates that between 2015 and 2040, the population within the EVMWD service area would increase from 149,300 to 238,300 persons (EVMWD, 2016a, Table 3-2). Population projections driving future demand for water treatment services in the EVMWD service area were prepared based on EVMWD's proposed development projects and land uses within EVMWD's borders as well as current demographic information such as household size.

At the time the UWMP was adopted by EVMWD, the 72.5-acre Project site was designated for development with commercial retail land uses. Thus, the UWMP assumed buildout of the entire Project site with commercial land uses. Based on the water duty factors presented in Table 4.18-7, the UWMP assumed that development of the 72.5-acre Project site with commercial land uses would result in a demand for approximately 181,250 gpd (72.5 ac x 2,500 gpd/ac = 181,250 gpd). Thus, the UWMP assumed the Project site would result in a demand for 54,380 gpd more water than the demand that would be generated by the proposed Project.

The EVMWD UWMP demonstrates that the EVMWD would have adequate capacity to serve existing and planned developments through existing and already-planned resources through year 2040. Because the UWMP growth assumptions are based in part on the general plan land use designations within the service area, and because the Project would result in a substantial reduction in potable water demand as compared to the commercial retail land uses that were assumed for the Project site by the UWMP, the Project's projected water demands are more than accounted for by the UWMP. Therefore, the Project and other cumulative developments within the service area would be served by sufficient water supplies from existing entitlements, and the Project and other cumulative developments would not require or result in the construction of new water treatment facilities beyond what is already identified in the EVMWD CIP. Accordingly, the Project's impacts due to potable water demand would be less-than-cumulatively considerable.

### C. *Landfill Capacity*

As previously discussed in the analysis of Threshold f, solid waste generated by construction and operation of the Project would represent nominal proportions of the daily disposal capacity at the Perris TS/MRF, El Sobrante Landfill, Badlands Landfill, and Lamb Canyon Landfill. The transfer station and landfills are currently projected to remain open as far into the future as 2060 (El Sobrante Landfill) and have sufficient daily capacity to handle solid waste generated by the Project and other cumulative developments during both construction and long-term operation (RCDWR, 2018). The proposed Project would not directly result in the need for expanded solid waste disposal facilities, as the Perris TS/MRF, El Sobrante Landfill, Badlands Landfill, and Lamb Canyon Landfill have sufficient existing capacity to handle solid waste generated by the proposed Project. Rather, the Project's incremental contribution to solid waste generation may contribute to an ultimate need for expanding the solid waste disposal facilities that would serve the Project and/or the construction of additional solid waste disposal facilities. Moreover, it is possible that as other developments in the region are proposed, the RCDWR and WMIE may opt to construct new solid waste disposal facilities to serve those developments, and such facilities may or may not receive solid waste generated by the proposed Project. Although the Project has the potential to cumulatively contribute to the demand for new/expanded solid waste disposal facilities, the construction of which could significantly impact the environment, it is too

speculative for evaluation in the absence of a proposed expansion or development plan (CEQA Guidelines § 15145). Therefore, the Project's cumulative impacts to solid waste disposal facilities would be less than significant.

### *D. Solid Waste Regulation Compliance*

The proposed Project would adhere to regulations set forth by local and state regulations (including AB 341 and AB 939) during both construction and long-term operations. Other cumulative developments would also be required to comply with such regulations. As such, the Project as well as other cumulative developments in the area would not result in cumulative impacts with respect to compliance with federal, state, and local statutes and regulations related to solid wastes. Impacts would be less-than-cumulatively-considerable.

### *E. Electrical, Natural Gas, and Telecommunication Facilities*

As previously indicated, construction of the proposed Project would require connections to existing electricity, natural gas, and telecommunication facilities. The Project area already is served by these utilities, and it is anticipated that proposed improvements to provide service to the Project site would occur within existing improved rights-of-way off-site, or on-site within areas already planned for impact and development by the Project. The proposed connections to these utilities are inherent to the Project's construction phase, which has been evaluated throughout this EIR. Where cumulatively-considerable impacts have been identified, feasible mitigation measures have been identified to reduce potential impacts to the maximum feasible extent. There are no components of the proposed Project's utility connections that would result in cumluautively-considerable effects not already evaluated by this EIR. Accordingly, impacts associated with the Project's proposed utility connections would be less-than-cumulatively considerable.

## 4.18.6 Significance of Impacts Before Mitigation

Thresholds a and c: Less-than-Significant Impact. Although the Project would require the construction of new water conveyance facilities, impacts associated with the construction of water facilities would be less than significant with implementation of the mitigation measures identified throughout this EIR. Wastewater treatment services would be provided by the EVMWD, which has existing and projected capacity to serve existing and planned development within its service area, including the proposed Project. Thus, the Project would not result in the construction of new wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects. Additionally, the Project would not result in a determination by the EVMWD that it has inadequate capacity to serve the Project's projected demand in addition to the provider's existing commitment. Additionally, the Project would construct two detention basins on site and associated drainage infrastructure, although there are no impacts to the environment that would result that are not already addressed throughout this EIR. Likewise, construction of the Project's electrical, natural gas, and telecommunications facilities are inherent to the Project's construction phase, and there are no impacts associated with these facilities that have not already been addressed by this EIR. Therefore, impacts would be less than significant.

Threshold b: Less-than-Significant Impact. The UWMP bases its growth assumptions, in part, based on the land use designations of General Plans within the EVMWD's service area, and the proposed Project would generate substantially less demand for potable water than development of the site with commercial uses, as

assumed in the UWMP. Because the EVMWD projects that it will have sufficient water supplies even during single and multiple dry years to meet the projected demand within its district through year 2040, and because the Project would result in less demand for potable water than is accounted for by the UWMP, it can be concluded that the EVMWD would have sufficient water supplies to serve the Project and other cumulative developments based on existing entitlements and resources. Additionally, the Project would not require or result in the construction of new water treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects. Therefore, impacts associated with the Project's water demand would be less than significant.

Threshold d: Less-than-Significant Impact. During both construction and operation of the Project, the amount of solid waste generated by the Project would represent a nominal increase in the existing available disposal capacity of the Perris TS/MRF, the El Sobrante Landfill, the Badlands Landfill, and the Lamb Canyon Landfill. Thus, the Project would be served by a landfill with insufficient permitted capacity to accommodate the project's solid waste disposal needs and impacts would be less than significant.

Threshold e: Less-than-Significant Impact. Existing landfills that serve the Project site are required to comply with federal, state, and local statues and regulations related to solid waste. Compliance with federal, state, and local statutes and regulations would reduce the amount of solid waste generated by the Project and diverted to landfills, which in turn would aid in the extension of the life of affected disposal sites. The Project would comply with all applicable solid waste statutes and regulations; as such, impacts would be less than significant.

## 4.18.7 City Regulations, Design Requirements, and Mitigation

### *Applicable City Regulations and Design Requirements*

The following are application regulations and design requirements within the City of Lake Elsinore. Although these requirements technically do not meet CEQA's definition for mitigation, they are imposed herein to ensure Project compliance with applicable City regulations and design requirements.

- The Project shall comply with the provisions of Lake Elsinore Municipal Code Title 14, Chapter 14.12 (Construction and Demolition Waste Management), which requires the preparation and implementation of a Waste Recycling Program in order to verify Project-level compliance with the provisions of Assembly Bill 341.

- The Project shall comply with Lake Elsinore Municipal Code Title 16, Chapter 16.34, Section 16.34.040 (Requirements for Building Permit Issuance), which requires that prior to the issuance of a building permit, utilities such as water and sewer, when requiring extensions to serve any parcel to be developed, shall be constructed by the owner's licensed contractor and that parcels shall be deemed served by City water and sewer if the distance in feet from the closest property line to the facility to be extended shall be 200 times the number of lots to be developed.

- The Project shall comply with Lake Elsinore Municipal Code Title 16, Chapter 16.52 (Improvements – Water Facilities), which requires that all required water storage and distribution facilities shall be installed by the land divider to serve each lot within the land division and shall be of such size and

design to adequately satisfy the domestic and fire demands, and further requires that all water facilities shall be installed in accordance with City standards.

- The Project shall comply with Lake Elsinore Municipal Code Title 16, Chapter 16.52 (Improvements – Sanitary Sewer Facilities), which requires that all sewer facilities shall be installed in accordance with the City standards and that the sewer facilities shall be of such size and design to adequately serve each lot within the land division and all existing or future tributary areas.

- The Project shall comply with Lake Elsinore Municipal Code Title 19, Chapter 19.08 (Water Efficient Landscaping Requirements), which is intended to implement the requirements necessary to meet the State of California Efficiency in Landscaping Act and the California Code of Regulations Title 23, Division 2, Chapter 2.7. The purpose and intent of this Chapter is also to:
    - establish provisions for water management practices and water waste prevention;
    - establish a structure for planning, designing, installing, maintaining, and managing water efficient landscapes in new construction and rehabilitated projects;
    - reduce the water demands from landscapes without a decline in landscape quality or quantity;
    - retain flexibility and encourage creativity through appropriate design;
    - assure the attainment of water efficient landscape goals by requiring that landscapes not exceed a maximum water demand of 70 percent of their reference evapotranspiration (ETo) or any lower percentage as may be required by water purveyor policy or state legislation, whichever is stricter;
    - eliminate water waste from overspray and/or runoff; and
    - achieve water conservation by raising the public awareness of the need to conserve water through education and motivation to embrace an effective water demand management program.

- The Project shall comply with the provisions of Assembly Bill 1826 (AB 1826), which requires businesses that generate 8 cubic yards or more of organic waste per week to arrange for organic waste recycling services. The threshold amount of organic waste generated requiring compliance by businesses is reduced in subsequent years. Businesses subject to AB 1826 shall take at least one of the following actions in order to divert organic waste from disposal:
    - Source separate organic material from all other recyclables and donate or self-haul to a permitted organic waste processing facility.
    - Enter into a contract or work agreement with gardening or landscaping service provider or refuse hauler to ensure the waste generated from those services meet the requirements of AB 1826.

### *Mitigation*

Impacts to utilities and service systems would be less than significant; therefore, mitigation measures are not required.

# 5.0 Other CEQA Considerations

## 5.1 Significant Environmental Effects Which Cannot Be Avoided if the Proposed Project is Implemented

The CEQA Guidelines require that an EIR disclose the significant environmental effects of a project which cannot be avoided if the proposed project is implemented (CEQA Guidelines § 15126(b)). As described in detail in Section 4.0 of this EIR, the proposed Project is anticipated to result in the following impacts to the environment that cannot be reduced to below a level of significance after the implementation of relevant standard conditions of approval, compliance with applicable laws and regulations, and application of feasible mitigation measures. The significant environmental effects of the proposed Project that cannot be feasibly mitigated are as follows:

- Air Quality: Significant and Unavoidable Direct and Cumulatively-Considerable Impact. Project construction- and operational-related air quality emissions would exceed the Regional Thresholds established by the SCAQMD for $NO_X$. No feasible mitigation measures exist to reduce the Project's emissions of $NO_X$ to below the applicable SCAQMD Regional Thresholds of significance. During construction activities, the majority of construction-source $NO_X$ emissions would be generated from soil import activities, while under operational conditions over 93 percent of operational-source $NO_X$ emissions would be generated by Project-related traffic. Neither the Project Applicant nor the Lead Agency (City of Lake Elsinore) can substantively or materially affect reductions in mobile-source emissions beyond the regulatory requirements and mitigation measures identified herein. Accordingly, the Project's significant direct and cumulatively-considerable impact due to a conflict with the SCAQMD 2016 AQMP would be significant and unavoidable. Additionally, Project construction and operation would result in unavoidable direct and cumulatively-considerable impacts due to projected violations of an applicable air quality standard ($NO_X$) and the Project's substantial contribution to an existing air quality violation for ozone, as $NO_X$ is an ozone precursor. Additionally, the Project's construction and operational emissions would represent a cumulatively-considerable net increase of a criteria pollutant for which the Project region is non-attainment (i.e., ozone); this also represents a significant and unavoidable direct and cumulatively-considerable impact of the proposed Project.

- Biological Resources: Significant and Unavoidable Direct Impact. Although the mitigation identified in EIR Subsection 4.3.7 would reduce the Project's impacts to biological resources to below a level of significance, the Project would nonetheless not comply with the MSHCP objectives for Cell Group W because strict compliance with the MSHCP Conservation Criteria would require the conservation of most or all of the 45.4-acre MSHCP-Excluded Project Area, which inherently conflicts with the Project's primary objective to develop the site with residential, commercial, and recreational land uses. Accordingly, the Project's direct impact due to a non-compliance with the MSHCP conservation requirements for the site represents a significant impact of the proposed Project that cannot be mitigated to below a level of significance.

- Transportation and Traffic: Significant and Unavoidable Direct and Cumulatively-Considerable Impacts. Implementation of the proposed Project would result in a number of direct and cumulatively-

considerable impacts to study area facilities. Unavoidable impacts would result from one or more of the following factors: 1) improvements required to achieve an acceptable Level of Service (LOS) are funded by a local or regional funding program (i.e., DIF or TUMF), but it cannot be assured that the improvements would be in place prior to the facilities experiencing a deficient LOS; 2) although fair-share monetary contributions have been identified for the Project's cumulatively-considerable impacts, a funding program does not currently exist for the facility and it cannot be assured that required improvements would be in place prior to the facility experiencing a deficient LOS; and/or 3) the affected facility is under the jurisdiction of another agency (e.g., Caltrans), and no funding programs exist beyond regional programs (e.g., TUMF) to implement improvements needed to achieve an acceptable LOS. A summary of the Project's unavoidable impacts to transportation/traffic is presented in Table 4.16-34 through Table 4.16-38 in EIR Subsection 4.16, *Transportation and Traffic*.

- Transportation and Traffic: Significant and Unavoidable Direct and Cumulatively-Considerable Impacts. Implementation of the proposed Project would result in a number of direct and cumulatively-considerable impacts to regional facilities identified in the 2011 Riverside County Congestion Management Plan (CMP). Unavoidable impacts to CMP facilities would result from one or more of the following factors: 1) improvements required to achieve an acceptable Level of Service (LOS) are funded by a local or regional funding program (i.e., DIF or TUMF), but it cannot be assured that the improvements would be in place prior to the facilities experiencing a deficient LOS; and/or 2) the affected facility is under the jurisdiction of another agency (e.g., Caltrans), and no funding programs exist beyond regional programs (e.g., TUMF) to implement improvements needed to achieve an acceptable LOS. A summary of the Project's unavoidable impacts to transportation/traffic is presented in Table 4.16-34 through Table 4.16-38 in EIR Subsection 4.16, *Transportation and Traffic*.

## 5.2 Significant Irreversible Environmental Impacts Which Would be Involved in the Proposed Action Should it be Implemented

The CEQA Guidelines require EIRs to address any significant irreversible environmental changes that would be involved in the proposed action should it be implemented (CEQA Guidelines § 15126.2(c)). An environmental change would fall into this category if: a) the project would involve a large commitment of non-renewable resources; b) the primary and secondary impacts of the project would generally commit future generations to similar uses; c) the project involves uses in which irreversible damage could result from any potential environmental accidents; or d) the proposed consumption of resources is not justified (e.g., the project results in the wasteful use of energy).

Determining whether the proposed Project may result in significant irreversible environmental changes requires a determination of whether key non-renewable resources would be degraded or destroyed in such a way that there would be little possibility of restoring them. Natural resources in the form of construction materials and energy resources would be used in the construction of the proposed Project, but development of the Project site as proposed would have no measurable adverse effect on the availability of such resources, including resources that may be non-renewable (e.g., fossil fuels). Construction and operation of the proposed Project would not involve the use of large sums or sources of non-renewable energy. Additionally, the Project is required by law to comply with the California Building Standards Code (CALGreen), compliance with

which reduces a building operation's energy volume that is produced by fossil fuels. The Project would be subject to regulations to reduce the Project's reliance on non-renewable energy sources. The Project also would be subject to the Energy Independence and Security Act of 2007, which contains provisions designed to increase energy efficiency and availability of renewable energy. The Project also would be subject to California Energy Code, or Title 24, which contains measures to reduce natural gas and electrical demand, thus requiring less non-renewable energy resources. The Project would avoid the inefficient, wasteful, and unnecessary consumption of energy during Project construction, operation, maintenance, and/or removal. With mandatory compliance to the energy efficiency regulations and mitigation measures, the Project would not involve the use of large sums or sources of non-renewable energy.

EIR Subsection 4.7, *Hazards and Hazardous Materials*, provides an analysis of the proposed Project's potential to transport or handle hazardous materials which, if released into the environment, could result in irreversible damage to the environment. As concluded in the analysis, compliance with federal, state, and local regulation related to hazardous materials would be required of all contractors working on the property during the Project's construction and of all the businesses and residents that occupy the Project's buildings. As such, construction and long-term operation of the proposed Project would not have the potential to cause significant irreversible damage to the environment, including damage that may result from upset or accident conditions.

## 5.3 Growth Inducing Impacts of the Proposed Project

CEQA requires a discussion of the ways in which the proposed Project would be growth inducing. The CEQA Guidelines identify a project as growth inducing if it would foster economic or population growth or the construction of additional housing, either directly or indirectly, in the surrounding environment (CEQA Guidelines § 5126.2(d)). New employees and new residential developments represent direct forms of growth. These direct forms of growth have a secondary effect of expanding the size of local markets and including additional economic activity in the area.

A project could indirectly induce growth at the local level by increasing the demand for additional goods and services associated with an increase in population or employment and thus reducing or removing the barriers to growth. This typically occurs in suburban or rural environments where population or employment growth results in increased demand for service and commodity markets responding to the new population of residents or employees. Economic growth would likely take place as a result of the proposed Project's operation as a residential and commercial development. The Project's construction-related employees and operational-related residents and employees would purchase goods and services in the region, but any secondary increase in employment associated with meeting these goods and services needs would be marginal, accommodated by existing goods and service providers, and highly unlikely to result in any new physical impacts to the environment. In addition, the Project is a mixed-use project that collocates residential and commercial retail uses; thus, a portion of the Project's demand for commercial retail would be met on-site. Therefore, while the Project would create economic opportunities by introducing new residents to the Project site, this change would not induce substantial new growth in the region.

Under CEQA, growth inducement is not considered necessarily detrimental, beneficial, or of significance to the environment. Typically, growth-inducing potential of a project would be considered significant if it fosters

growth or a concentration of population in excess of what is assumed in pertinent master plans, land use plans, or in projections made by regional planning agencies such as the Southern California Association of Governments (SCAG). Significant growth impacts also could occur if a project provides infrastructure or service capacity to accommodate growth beyond the levels currently permitted by local or regional plans and policies. In general, growth induced by a project is considered a significant impact if it directly or indirectly affects the ability of agencies to provide needed public services, or if it can be demonstrated that the potential growth significantly affects the environment is some other way.

The area surrounding the Project site is primarily characterized by vacant lands, mining uses, residential uses, school uses, and commercial land uses within the City of Lake Elsinore and unincorporated Riverside County. Development of the Project site with residential and commercial land uses would not directly induce surrounding properties to develop, because areas abutting the Project site to the east, west, and south are already developed with residential, school, and commercial uses, while areas directly north of the Project site are already are planned for commercial uses. All remaining parcels surrounding the Project site are either developed, or planned for residential, commercial, or open space uses. Accordingly, the growth-inducing impacts of the Project would be less than significant. The Project is not expected to induce growth of land uses changes on the other parcels in the vicinity, as other lands surrounding the site are either already developed or planned to be developed consistent with their General Plan land use designations.

Furthermore, the proposed Project's improvements to the public infrastructure, including roads, drainage infrastructure, and other utility improvements are consistent with the City of Lake Elsinore's General Plan and would not indirectly induce substantial population growth in the local area. Upgraded water and sewer facilities proposed by the Project would be sized to serve future uses on-site, and would not indirectly induce growth in the surrounding area by removing obstacles to development because water and sewer facilities are already available in the area. As noted above, a majority of the Project's vicinity has been built out, thus the Project's proposed water and sewer improvements would not be growth inducing.

In summary, the proposed Project would have less-than-significant growth-inducing impacts.

## 5.4 Effects Found Not to be Significant During the Initial Study Process

CEQA Guidelines §15128 requires that an EIR:

> *"…contain a statement briefly indicating the reasons that various possible significant effects of a project were determined not to be significant and were therefore not discussed in detail in the EIR."*

An Initial Study was prepared for the proposed Project, which is included as *Technical Appendix A* to this EIR. Through the Initial Study process, the City of Lake Elsinore determined that the proposed Project could potentially cause adverse effects, thereby requiring preparation of an EIR. The Initial Study concluded that the Project would have no potential to cause significant effects to the following environmental issue areas: Agricultural/Forest Resources and Mineral Resources. Therefore, these issue areas are not required to be discussed in Section 4.0, *Environmental Analysis*, of this EIR. A brief summary of the two issues found not

to be significant is presented below, with a more detailed analysis provided in the Project's Initial Study contained in *Technical Appendix A.*

### 5.4.1 Agriculture and Forest Resources

| | |
|---|---|
| ***Threshold a:*** | ***Would the Project convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?*** |

According to information available from the Farmland Mapping and Monitoring Program (FMMP), the majority of the Project site is designated as "Farmland of Local Importance" while a portion of the eastern portion of the Project site is designated as "Grazing Land." "Farmland of Local Importance" is land other than "Prime Farmland," "Farmland of Statewide Importance," or "Unique Farmland." This land may be important to the local economy due to its productivity or value. "Grazing Land" is land on which the existing vegetation is suited to the grazing of livestock. There is no Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland) located on-site. (CDC, 2017) Therefore, the Project does not have the potential to directly or indirectly convert Farmland to non-agricultural use, and no impact would occur.

| | |
|---|---|
| ***Threshold b:*** | ***Would the Project conflict with existing zoning for agricultural use, or a Williamson Act contract?*** |

According to the California Department of Conservation, there are no Williamson Act contracts in the Project vicinity (CDC, 2016). The nearest land under a Williamson Act contract is located approximately 6.5 miles northwest of the Project site. In addition, according to Riverside County Geographic Information System (GIS), there are no Agricultural Preserves in the Project vicinity (RCIT, 2018). The nearest Agricultural Preserve is located 6.9 miles northwest of the Project site. The Project site is zoned for "Commercial – Specific Plan" and "Commercial Mixed Use (CMU)," neither of which is an agricultural zoning designation. Additionally, no portion of the Project site is used for agricultural operations. Area to the south of the Project site are used for school uses, areas to the east are zoned for residential uses, areas to the north are zoned for "Specific Plan – Commercial" and open space, and to the west is I-15. Therefore, the proposed Project has no potential to conflict with existing zoning for agricultural use or with an existing Williamson Act contract.

| | |
|---|---|
| ***Threshold c:*** | ***Would the Project conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?*** |

There are no lands within the Project vicinity that are designated as forest land, timberland, or Timberland Production (RCIT, 2018; Lake Elsinore, 2014). The Project site and surrounding areas are zoned for residential, commercial, and open space land uses. Accordingly, the proposed Project would not have the potential to conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g)). As such, no impact would occur.

***Threshold d:*** ***Would the Project result in the loss of forest land or conversion of forest land to non-forest use?***

Implementation of the proposed Project would not result in the loss of forest land or conversion of forest land to non-forest uses, as there are no forest resources in the area. Under existing conditions, the Project site does not contain any forest lands and the northern 45.4 acres of the site are currently undergoing reclamation pursuant to Reclamation Plan 2006-01A2. Accordingly, the proposed Project would not have the potential to result in the loss of forest land or the conversion of forest land to non-forest use. As such, no impact would occur. (Google Earth, 2016)

***Threshold e:*** ***Would the Project involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?***

As noted in the foregoing analysis, there is not any "Farmland" on the Project site or in the Project site's vicinity (CDC, 2017). There is no potential for the proposed Project to result in the conversion of Farmland to non-agricultural uses. Additionally, there are no forest lands in the Project vicinity, and conversion of forest land to non-forest use would not occur. As such, no impact would occur.

### 5.4.2 Mineral Resources

***Threshold a:*** ***Would the Project result in the loss of availability of a known mineral resource that would be a value to the region and the residents of the state?***

According to the CDC, the Project site is located within Mineral Resource Zone (MRZ) 4. MRZ-4 represents "[a]reas of no known mineral occurrences where geologic information does not rule out either the presence or absence of significant mineral resources." (CDC, 1991) In addition, the northern 45.4 acres of the Project site were formerly used for mining operations and are undergoing reclamation, and all known mineral resources of economic value have been extracted from the northern portions of the Project site. Accordingly, the Project would not result in the loss of any known mineral resource that would be of value to the region and the residents of the state, and impacts would be less than significant.

***Threshold b:*** ***Would the Project result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?***

The City of Lake Elsinore General Plan and Alberhill District Plan apply an Extractive Overlay to a majority of the Project site, which "…provides for continued operations of extractive uses, such as aggregates, coal, clay mining, and certain ancillary uses" (Lake Elsinore, 2011a, Figure 2.1A and p. 2-18). The Alberhill District Plan acknowledges that "the Alberhill District [including the Project site] is at a crossroads and is poised to transition from a region with large quantities of extractive activities to a series of master planned communities" (Lake Elsinore, 2011a, p. AH-6). The northern 45.4 acres of the Project site were formerly used for mining operations and are undergoing reclamation. All known mineral resources of economic value have been extracted from the northern portions of the Project site. Accordingly, the Project would not result

in the loss of any locally-important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan, and impacts would be less than significant.

# 6.0 ALTERNATIVES

CEQA Guidelines § 15126.6(a) describes the scope of analysis that is required when evaluating alternatives to proposed projects, as follows:

> *"An EIR shall describe a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives. An EIR need not consider every conceivable alternative to a project. Rather it must consider a reasonable range of potentially feasible alternatives that will foster informed decision making and public participation. An EIR is not required to consider alternatives which are infeasible. The lead agency is responsible for selection of a range of project alternatives for examination and must publicly disclose its reasoning for selecting those alternatives. There is no ironclad rule governing the nature or scope of the alternatives to be discussed other than the rule of reason."*

As discussed in Section 4.0, Environmental Analysis, the proposed Project would result in significant adverse environmental effects that cannot be mitigated to below levels of significance after the implementation of Project design features, mandatory regulatory requirements, and feasible mitigation measures. The unavoidable significant impacts are:

- Air Quality: Significant and Unavoidable Direct and Cumulatively-Considerable Impact. Project construction- and operational-related air quality emissions would exceed the Regional Thresholds established by the SCAQMD for $NO_X$. No feasible mitigation measures exist to reduce the Project's emissions of $NO_X$ to below the applicable SCAQMD Regional Thresholds of significance. During construction activities, the majority of construction-source $NO_X$ emissions would be generated from soil import activities, while under operational conditions over 93 percent of operational-source $NO_X$ emissions would be generated by Project-related traffic. Neither the Project Applicant nor the Lead Agency (City of Lake Elsinore) can substantively or materially affect reductions in mobile-source emissions beyond the regulatory requirements and mitigation measures identified herein. Accordingly, the Project's significant direct and cumulatively-considerable impact due to a conflict with the SCAQMD 2016 AQMP would be significant and unavoidable. Additionally, Project construction and operation would result in unavoidable direct and cumulatively-considerable impacts due to projected violations of an applicable air quality standard ($NO_X$) and the Project's substantial contribution to an existing air quality violation for ozone, as $NO_X$ is an ozone precursor. Additionally, the Project's construction and operational emissions would represent a cumulatively-considerable net increase of a criteria pollutant for which the Project region is non-attainment (i.e., ozone); this also represents a significant and unavoidable direct and cumulatively-considerable impact of the proposed Project.

- Biological Resources: Significant and Unavoidable Direct Impact. Although the mitigation identified in EIR Subsection 4.3.7 would reduce the Project's impacts to biological resources to below a level of significance, the Project would nonetheless not comply with the MSHCP objectives for Cell Group W because strict compliance with the MSHCP Conservation Criteria would require the conservation of most or all of the 45.4-acre MSHCP-Excluded Project Area, which inherently conflicts with the

Project's primary objective to develop the site with residential, commercial, and recreational land uses. Accordingly, the Project's direct impact due to a non-compliance with the MSHCP conservation requirements for the site represents a significant impact of the proposed Project that cannot be mitigated to below a level of significance.

- Transportation and Traffic: Significant and Unavoidable Direct and Cumulatively-Considerable Impacts. Implementation of the proposed Project would result in a number of direct and cumulatively-considerable impacts to study area facilities. Unavoidable impacts would result from one or more of the following factors: 1) improvements required to achieve an acceptable Level of Service (LOS) are funded by a local or regional funding program (i.e., DIF or TUMF), but it cannot be assured that the improvements would be in place prior to the facilities experiencing a deficient LOS; 2) although fair-share monetary contributions have been identified for the Project's cumulatively-considerable impacts, a funding program does not currently exist for the facility and it cannot be assured that required improvements would be in place prior to the facility experiencing a deficient LOS; and/or 3) the affected facility is under the jurisdiction of another agency (e.g., Caltrans), and no funding programs exist beyond regional programs (e.g., TUMF) to implement improvements needed to achieve an acceptable LOS. A summary of the Project's unavoidable impacts to transportation/traffic is presented in Table 4.16-34 through Table 4.16-38 in EIR Subsection 4.16, *Transportation and Traffic*.

- Transportation and Traffic: Significant and Unavoidable Direct and Cumulatively-Considerable Impacts. Implementation of the proposed Project would result in a number of direct and cumulatively-considerable impacts to regional facilities identified in the 2011 Riverside County Congestion Management Plan (CMP). Unavoidable impacts to CMP facilities would result from one or more of the following factors: 1) improvements required to achieve an acceptable Level of Service (LOS) are funded by a local or regional funding program (i.e., DIF or TUMF), but it cannot be assured that the improvements would be in place prior to the facilities experiencing a deficient LOS; and/or 2) the affected facility is under the jurisdiction of another agency (e.g., Caltrans), and no funding programs exist beyond regional programs (e.g., TUMF) to implement improvements needed to achieve an acceptable LOS. A summary of the Project's unavoidable impacts to transportation/traffic is presented in Table 4.16-34 through Table 4.16-38 in EIR Subsection 4.16, *Transportation and Traffic*.

## 6.1 Alternatives Under Consideration

CEQA Guidelines § 15126.6(e) requires that an alternative be include that describes what would reasonably be expected to occur on the property in the foreseeable future if the Project were not approved, based on current plans and consistent with available infrastructure and community services (i.e., "no project" alternative). For development projects that include a revision to an existing land use plan, the "no project" alternative is considered to be the continuation of the existing land use plan into the future. For projects other than a land use plan (for example, a development project on an identifiable property), the "no project" alternative is considered to be a circumstance under which the project does not proceed (CEQA Guidelines § 15126.6(e)(3)(A-B)). For the alternatives analysis in this EIR, the potential scenario where the Project does not proceed is considered to be the "No Development Alternative," while the potential scenario where the

existing General Plan and specific plan land uses are implemented is considered to be the "No Project Alternative / General Plan Land Use Alternative (GPLUA)."

The following scenarios are identified by the City of Lake Elsinore as potential alternatives to implementation of the proposed Project.

### 6.1.1 No Project / No Development Alternative (NDA)

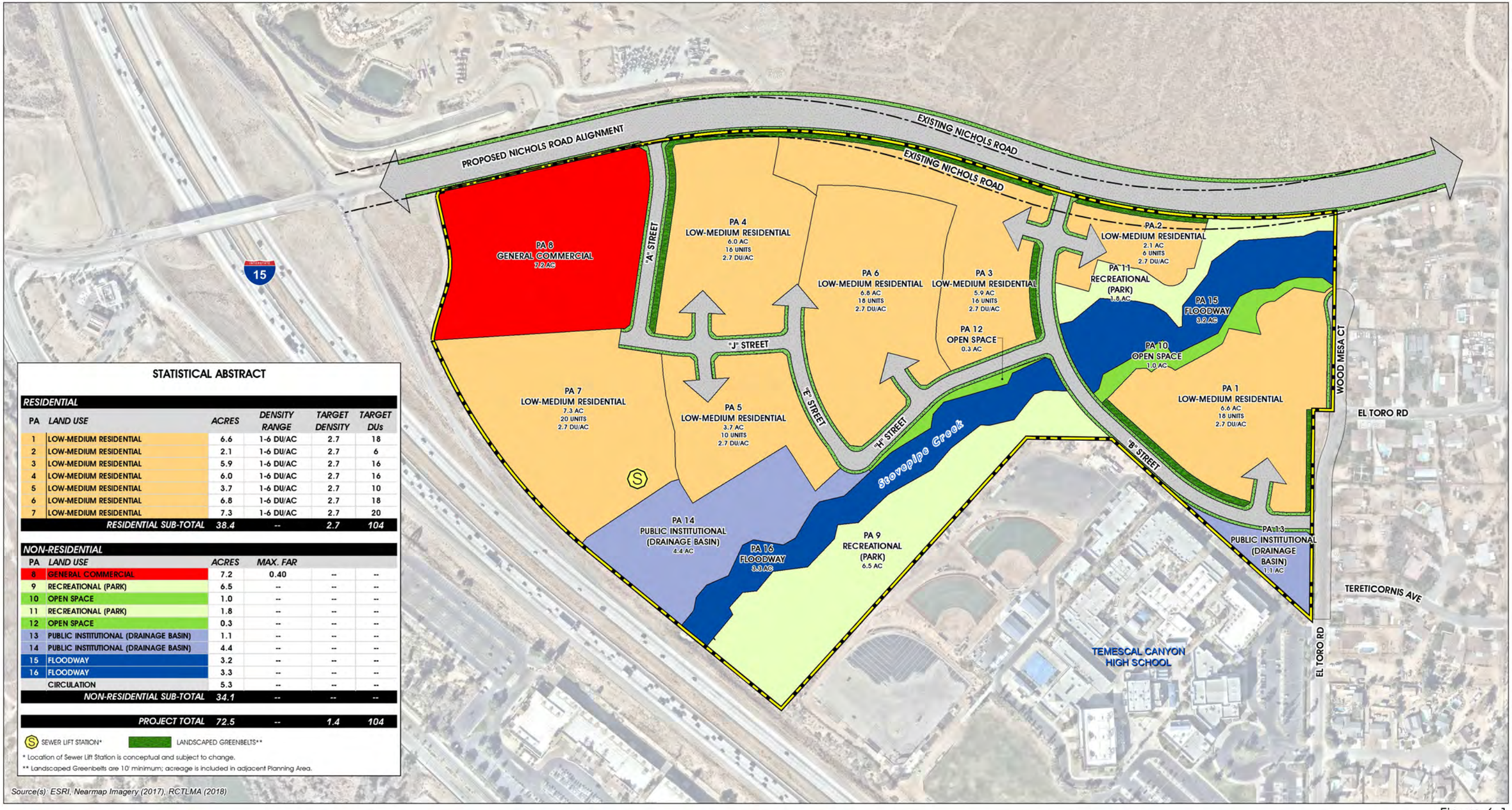
The No Project/No Development Alternative (NDA) considers no new development/disturbance on the Project site following completion of site reclamation activities beyond that which occurs under existing conditions. As such, the 72.5-acre Project site would consist of undeveloped land that is routinely disced as part of on-going fire abatement activities. Under this Alternative, no improvements would be made to the Project site and none of the Project's roadway, utility, and other infrastructure improvements would occur. This Alternative was selected by the Lead Agency to compare the environmental effects of the proposed Project with an alternative that would leave the Project site in its existing (i.e., post-reclamation) conditions, in conformance with CEQA Guidelines § 15126.6(e)(3)(B).

### 6.1.2 No Project / General Plan Land Use Alternative (GPLUA)

The No Project/General Plan Land Use Alternative (GPLUA) considers development of the 72.5-acre Project site in accordance with the site's existing land use designations. For the northern 45.4 acres of the Project site, development would occur in conformance with the Alberhill Ranch Specific Plan (ARSP), which allows for up to 380,000 s.f. of regional general commercial uses. The southern 27.1 acres of the Project site would be developed in conformance with the underlying General Plan land use designation of "General Commercial," which allows for retail, services, restaurants, professional and administrative offices, hotels and motels, mixed-use projects, public and quasi-public uses, and similar and compatible uses. For purposes of analysis, it is assumed that the GPLUA would be developed to the maximum Floor Area Ratio (FAR) of 0.40 for the southern 27.1 acres of the site, which would allow for up to 472,190 s.f. of commercial area. Thus, this Alternative would allow for approximately 852,190 s.f. of general commercial building area, for an overall FAR of 0.27. Consistent with the NRSP, this Alternative proposes a bridge crossing over Stovepipe Creek slightly to the east of the location of the Project's proposed crossing. Similar to the proposed Project, it is assumed that Stovepipe Creek would be preserved on site on 6.5 acres. Additionally, under this alternative there would be a connection to El Toro Road/Wood Mesa Court near the Project's southeastern boundary.

### 6.1.3 Reduced Project Alternative

The Reduced Project Alternative (RPA), as shown on Figure 6-1, *Reduced Project Alternative*, considers development of the Project site with similar uses as the proposed Project, but at a much lower intensity. Specifically, the RPA accommodates up to 104 "Low-Medium Residential" dwelling units on 38.4 acres at an overall density of 2.7 dwelling units per acre (du/ac); 7.2 acres of "General Commercial" land uses, which could accommodate up to 125,453 s.f. of general commercial land uses (at a maximum Floor Area Ratio [FAR] of 0.40); 8.3 acres of "Recreational (Park)" land uses; 1.3 acres of "Open Space" land uses; "Public Institutional (Drainage Basin)" land uses on 5.5 acres; "Floodway" (open space" land uses on 6.5 acres; and 5.3 acres of backbone circulation facilities. Except for the reduction in the number of dwelling units and areas proposed




**STATISTICAL ABSTRACT**

| PA | LAND USE | ACRES | DENSITY RANGE | TARGET DENSITY | TARGET DUs |
|---|---|---|---|---|---|
| *RESIDENTIAL* | | | | | |
| 1 | LOW-MEDIUM RESIDENTIAL | 6.6 | 1-6 DU/AC | 2.7 | 18 |
| 2 | LOW-MEDIUM RESIDENTIAL | 2.1 | 1-6 DU/AC | 2.7 | 6 |
| 3 | LOW-MEDIUM RESIDENTIAL | 5.9 | 1-6 DU/AC | 2.7 | 16 |
| 4 | LOW-MEDIUM RESIDENTIAL | 6.0 | 1-6 DU/AC | 2.7 | 16 |
| 5 | LOW-MEDIUM RESIDENTIAL | 3.7 | 1-6 DU/AC | 2.7 | 10 |
| 6 | LOW-MEDIUM RESIDENTIAL | 6.8 | 1-6 DU/AC | 2.7 | 18 |
| 7 | LOW-MEDIUM RESIDENTIAL | 7.3 | 1-6 DU/AC | 2.7 | 20 |
| | *RESIDENTIAL SUB-TOTAL* | *38.4* | -- | *2.7* | *104* |

| PA | *NON-RESIDENTIAL* LAND USE | ACRES | MAX. FAR | | |
|---|---|---|---|---|---|
| 8 | GENERAL COMMERCIAL | 7.2 | 0.40 | -- | -- |
| 9 | RECREATIONAL (PARK) | 6.5 | -- | -- | -- |
| 10 | OPEN SPACE | 1.0 | -- | -- | -- |
| 11 | RECREATIONAL (PARK) | 1.8 | -- | -- | -- |
| 12 | OPEN SPACE | 0.3 | -- | -- | -- |
| 13 | PUBLIC INSTITUTIONAL (DRAINAGE BASIN) | 1.1 | -- | -- | -- |
| 14 | PUBLIC INSTITUTIONAL (DRAINAGE BASIN) | 4.4 | -- | -- | -- |
| 15 | FLOODWAY | 3.2 | -- | -- | -- |
| 16 | FLOODWAY | 3.3 | -- | -- | -- |
| | CIRCULATION | 5.3 | -- | -- | -- |
| | *NON-RESIDENTIAL SUB-TOTAL* | *34.1* | -- | -- | -- |
| | *PROJECT TOTAL* | *72.5* | -- | *1.4* | *104* |

(S) SEWER LIFT STATION*  LANDSCAPED GREENBELTS**

* Location of Sewer Lift Station is conceptual and subject to change.

** Landscaped Greenbelts are 10' minimum; acreage is included in adjacent Planning Area.

*Source(s): ESRI, Nearmap Imagery (2017), RCTLMA (2018)*

0 75 150 300 Feet

Figure 6-1

**REDUCED PROJECT ALTERNATIVE**

for commercial, all remaining components of the RPA would be the same as the proposed Project, including areas subject to grading and disturbance. This alternative was selected for evaluation by the Lead Agency to compare the environmental effects of the proposed Project against an alternative that would reduce the Project's significant and unavoidable impacts to air quality and traffic by reducing the total number of dwelling units and commercial square footage on the Project site.

## 6.2 Alternatives Considered and Rejected

An EIR is required to identify any alternatives that were considered by the Lead Agency but were rejected as infeasible. Among the factors described by CEQA Guidelines § 15126.6 in determining whether to exclude alternatives from detailed consideration in the EIR are: a) failure to meet most of the basic project objectives, b) infeasibility, or c) inability to avoid significant environmental impacts. With respect to the feasibility of potential alternatives to the proposed Project, CEQA Guidelines § 15126.6(f)(1) notes:

> *"Among the factors that may be taken into account when addressing the feasibility of alternatives are site suitability, economic viability, availability of infrastructure, general plan consistency, other plans or regulatory limitations, jurisdictional boundaries…and whether the proponent can reasonably acquire, control or otherwise have access to the alternative site…"*

In determining an appropriate range of alternatives to be evaluated in this EIR, a number of possible alternatives were initially considered and, for a variety of reasons, rejected. Alternatives were rejected because either: 1) they could not accomplish the basic objectives of the Project, 2) they would not have resulted in a reduction of significant adverse environmental impacts, and/or 3) they were considered infeasible to construct or operate. A summary of the alternatives that were considered buy rejected are described below.

### 6.2.1 Alternative Sites

CEQA does not require that an analysis of alternative sites always be included in an EIR. However, if the surrounding circumstances make it reasonable to consider an alternative site then this alternative should be considered and analyzed in the EIR. In making the decision to include or exclude analysis of an alternative site, the "*key question and first step in analysis is whether any of the significant effects of the project would be avoided or substantially lessened by putting the project in another location. Only locations that would avoid or substantially lessen any of the significant effects of the project need to be considered for inclusion in the EIR*" (CEQA Guidelines § 15126.6(f) (2)).

Based on a review of aerial photography, the City of Lake Elsinore General Plan land use map and a list of approved/pending development proposals within City of Lake Elsinore and nearby portions of unincorporated Riverside County that are included in the Project's Traffic Impact Analysis (EIR Technical Appendix L; refer to EIR Table 4.0-1 for a list of cumulative developments), there are no other available, undeveloped properties of similar size (i.e., approximately 72.5 acres) that are zoned for and adjacent to other properties designated for urban development and that would reduce or avoid the Project's significant and unavoidable impacts. For example, development of the Project at an alternative site location would not reduce or avoid the Project's significant and unavoidable air quality impacts due to $NO_X$ emissions during both construction and operation, as it would not be possible to develop 168 single family residential homes and 14.5 acres of commercial uses

without exceeding the SCAQMD Regional Thresholds for this pollutant. Similarly, while development of the Project site in a different location may avoid the Project's significant and unavoidable impact due to non-compliance with the MSHCP Conservation Criteria affecting the northern 45.4 acres of the Project site, the fact of the matter is that the northern 45.4 acres still would be exempt from MSHCP compliance pursuant to the Settlement Agreement (refer to EIR subsection 2.4.4), would not contribute to the assemblage of MSHCP conservation areas, and likely ultimately would be developed with other land uses. Furthermore, development of the Project at a different location would merely shift the Project's near-term impacts to transportation/traffic to a different location, and it is likely that similar or more severe near-term impacts could occur at off-site locations due to the timing of regional improvements or the lack of established funding programs for required improvements. For these reasons, the City of Lake Elsinore finds that evaluation of an alternative site location is not required for the Project because alternative site locations would not reduce or avoid the Project's significant environmental effects.

## 6.3 ALTERNATIVE ANALYSIS

The following discussion compares the impacts of each alternative considered by the Lead Agency with the impacts of the proposed Project, as detailed in EIR Subsection 4.0, *Environmental Analysis*. A conclusion is provided for each impact as to whether the alternative results in one of the following (1) reduction or elimination of the proposed Project's impact, (2) a greater impact than would occur under the proposed Project, (3) the same impact as the proposed Project, or (4) a new impact in addition to the proposed Project's impacts. Table 6-1, *Alternatives to the Proposed Project – Comparison of Environmental Impacts*, located at the end of this Section, compares the environmental hazard and resource impacts of the alternatives with those of the proposed Project and identifies the ability of the alternative to meet the basic objectives of the Project. As described in EIR Subsection 3.1, the underlying purposes of the proposed Project are to develop a single-family residential community with commercial areas, as well as comply to the greatest feasible extent with applicable City of Lake Elsinore standards, codes, and policies. The additional basic objectives of the proposed Project are:

A. To efficiently develop an underutilized property with a complementary mix of land uses, including residential, commercial, recreational, and open space land uses.

B. To establish a master-planned community in a manner that is sensitive to the environment as well as visually and functionally compatible with surrounding existing and proposed land uses.

C. To develop a mixed-use community with a design that takes topographic, geologic, hydrologic, and environmental opportunities and constraints into consideration to minimize alterations to Stovepipe Creek, where practical.

D. To increase the available housing supply within the region by providing detached single-family homes in traditional subdivision layouts that will be marketable within the evolving economic profile of the City of Lake Elsinore and surrounding communities.

E. To construct commercial and hotel uses within proximity to regional transportation facilities that will provide for employment opportunity and that can attract tenants at competitive lease rates to help ensure that the uses are occupied and positively contribute to the local economy.

F. To provide a system of public and community facilities, including recreational facilities and trails, in an efficient and timely manner and meet the needs of Project residents and residents of surrounding communities.

G. To require project design elements such as architecture, landscaping, color, paving, walls, fencing, signage, entry treatments, and other similar design features that would ensure the community is developed in a manner that is aesthetically pleasing.

H. To establish development phasing that results in logical coordinated growth.

I. To develop the site with complementary mixed uses in a manner that preserves, to the extent feasible, natural drainages.

### 6.3.1 No Project / No Development Alternative (NDA)

The No Project/No Development Alternative (NDA) considers no new development/disturbance on the Project site following completion of site reclamation activities beyond that which occurs under existing conditions. As such, the 72.5-acre Project site would consist of undeveloped land that is routinely disced as part of on-going fire abatement activities. Under this Alternative, no improvements would be made to the Project site and none of the Project's roadway, utility, and other infrastructure improvements would occur. This Alternative was selected by the Lead Agency to compare the environmental effects of the proposed Project with an alternative that would leave the Project site in its existing (i.e., post-reclamation) conditions, in conformance with CEQA Guidelines § 15126.6(e)(3)(B).

#### *A. Aesthetics*

The NDA considers no development or disturbance on the Project site beyond that which occurs under existing conditions, including on-going reclamation activities. As such, following reclamation, the 72.5-acre site would remain undeveloped and vacant land that is routinely disced for fire abatement purposes. Thus, the Project's less-than-significant impacts to scenic vistas would be avoided under this Alternative. Although the Project site is not visible from any officially-designated scenic highways, implementation of the NDA would result in reduced visual effects to nearby County-eligible highways, including I-15 and SR-74 as compared to the proposed Project. Although the Project is not expected to degrade the existing visual character or quality of the site or its surroundings, implementation of the NDA would retain the areas visual character and impacts would be reduced in comparison to the Project. There would be no new sources of light or glare under the NDA, and impacts associated with light and glare would be reduced in comparison to the proposed Project.

#### *B. Air Quality*

Under the NDA, no development would occur on the Project site; therefore, there would be no potential sources of short-term (construction) or long-term (operational) emissions. There also would be no potential sources

of construction-related odors associated with this Alternative. With respect to construction-related emissions, the NDA would avoid the Project's near-term impacts due to $NO_X$ emissions, and also would eliminate the Project's localized emissions of $PM_{2.5}$, although mitigation is proposed to reduce the Project's impacts to less-than-significant levels. Additionally, the NDA would avoid the Project's long-term operational impacts due to $NO_X$ emissions that exceed the SCAQMD Regional Thresholds. The NDA also would avoid the Project's conflict with the AQMP due to near- and long-term $NO_X$ emissions.

### C. *Biological Resources*

The NDA would leave the Project site in its existing (post-reclamation) condition and no development would occur on the site. Thus, the NDA would avoid the Project's impacts to sensitive species, including burrowing owl, native bird nests, and habitat for the California glossy snake and coast patch-nosed snake. The NDA also would avoid the Project's impacts to sensitive habitats, including 0.38 acre of Riversidean sage scrub, 0.40 acre of disturbed Riversidean sage scrub, 0.07 acre of Riversidean alluvial fan sage scrub, and 1.73 acres of disturbed Riversidean sage scrub-encelia dominant. The NDA also would avoid the Project's impacts to jurisdictional waters, including direct impacts to 0.44 acre of CDFW and RWQCB jurisdiction (including 0.07 acre of Riversidean alluvial fan sage scrub). Although Project impacts to wildlife movement corridors would be less than significant, the NDA would provide for greater local wildlife movement opportunities as compared to the Project. Both the Project and the NDA would be consistent with the Stephens' Kangaroo Rat (SKR) Habitat Conservation Plan (HCP). Additionally, the NDA would avoid impacts to the burrowing owl and associated habitat. Although implementation of the NDA would reduce the Project's unavoidable impact due to a conflict with the MSHCP, there would be no land dedication as part of the NDA and no part of the Project site would be considered conserved pursuant to the MSHCP; therefore, while impacts would be reduced due to the fact the Project site would remain undeveloped, the NDA would not eliminate the Project's significant and unavoidable impact due to a conflict with the Cell Conservation Criteria affecting the northern 45.4 acres of the Project site.

### D. *Geology and Soils*

Under the NDA, no grading and/or earthmoving activities would occur and no habitable structures would be constructed on the Project site. Therefore, there would be no potential to expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault, strong seismic ground shaking, and/or seismic-related ground failure. Under this Alternative, on- or off-site landslide, lateral spreading, subsidence, liquefaction, collapse, soil instability, or expansive soils could occur as a result of natural forces; however, because no development would occur, there would be no structures located on a geologic unit or soil that is unstable. Since no grading activities would occur under the NDA and no cut and fill slopes would be created, hazards associated with unstable soils would not occur under the NDA. No substantial changes to the site topography would occur under this Alternative, since it does not propose to alter the site from its current (i.e., post-reclamation) condition.

Under the NDA, because no development would occur, soil erosion and the loss of topsoil due to natural forces (wind and rain) would continue in the absence of regulations such as a NPDES, a SWPPP, and SCAQMD Rule 403, Fugitive Dust, which would regulate the proposed Project so that potential impacts associated with soil erosion and the loss of topsoil would be mitigated. Accordingly, any potential impacts associated with geology

and soils, with the exception of soil erosion and the loss of topsoil that would occur as a result of natural processes, would be avoided under the NDA. Impacts associated with soil erosion and the loss of topsoil would be slightly increased under the NDA.

### *E. Greenhouse Gas Emissions*

As noted in EIR Subsection 4.6, Greenhouse Gas Emissions, an individual project such as the proposed Project does not have the potential to result in direct and significant GCC-related effects in the absence of cumulative sources of GHGs. Under the NDA, no development would occur on the Project site; therefore, there would be no new potential sources of cumulative near-term or long-term GHG emissions. Accordingly, because no development would occur under this Alternative, the proposed Project's less-than-significant impact (with mitigation) would be avoided under this Alternative. Neither the NDA nor the Project would conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs. Impacts due to GHGs would be reduced under the NDA.

### *F. Hazards and Hazardous Materials*

Because no development would occur under the NDA, no potential impacts associated with the routine transport, use, or disposal of hazardous materials or foreseeable upset or accident conditions involving the release of hazardous materials into the environment, would occur. Although Project impacts due to the emission of hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school (i.e., Temescal Canyon High School), because no development would occur impacts to schools would be reduced under this alternative. The Project site is not listed on any list of hazardous materials sites compiled pursuant to Government Code Section 65962.5; therefore, neither the proposed Project nor the NDA have the potential to result in impacts associated with hazardous materials sites. Neither the proposed Project nor the NDA would be inconsistent with an Airport Master Plan. No public airports or private airstrips currently operate within two miles of the Project site; therefore, neither the proposed Project nor the NDA would result in a safety hazard for residents or workers in the Project area. Because the Project site is not identified as part of an emergency response plan or emergency evacuation plan, neither the NDA nor the Project would result in significant impacts due to impairment of evacuation or emergency plans.

The northern portion of the Project site is located in an area identified as having a "High' susceptibility to wildfires, while the northern most boundary of the Project site along Nichols Road and the southern 27.1 acres of the Project site are identified as having a "Very High" susceptibility to wildfires (Lake Elsinore, 2011b, Figure 3.10-2). The proposed Project would implement a Fire Protection Plan that would incorporate fuel management zones that would minimize the risk of wildfires affecting the site. Under the NDA, there would be no Fire Protection Plan, although the site would continue to be routinely disced as part of fire abatement activities. Nonetheless, because the NDA would retain the site in its natural (post-reclamation) condition, the risk of the Project site contributing to wildfire hazards in the area would be increased as compared to the proposed Project.

### *G. Historic and Archaeological Resources*

Based on the Project's archaeological assessment, the Project site contains one prehistoric resource site (Site P-33-026830) and one historic site (Site RIV-8120), neither of which are evaluated as significant under CEQA.

The NDA would not entail any construction activities, and thus would avoid all impacts to these archaeological sites. No cemetery or human remains are known to be present on the Project site. Because no ground-disturbing activities would occur under the NDA, there is no potential to uncover any previously unknown human remains or previously unknown archeological resources buried beneath the surface. This Alternative would avoid all of the ground-disturbing activities of the proposed Project; therefore, this Alternative would avoid all of the proposed Project's impacts (considered less-than-significant with mitigation) to cultural resources. Accordingly, all potential impacts associated with cultural resources would be avoided under this Alternative.

### *H. Hydrology and Water Quality*

Because no grading or development of the Project site would occur under the NDA, no changes to existing hydrology and drainage conditions would occur. No storm water improvements would be constructed and rainfall would continue to exit the site as sheet flow, as occurs under existing conditions. Because this Alternative would not implement mandatory SWPPP and NPDES measures to reduce erosion and sedimentation, erosion and sedimentation would be greater under this Alternative. Accordingly, the proposed Project's potential impacts associated with hydrology and water quality, with the exception of uncontrolled erosion and sedimentation and its potential impacts on water quality, would be avoided under this Alternative.

The NDA would allow for greater on-site groundwater recharge compared to the proposed Project due to the avoidance of an increase in impermeable surfaces at the site that would occur as a result of Project implementation. Thus, the Project's less-than-significant impact due to groundwater recharge would be reduced under this alternative.

The proposed Project would install a comprehensive system of storm drain improvements and water quality retention basins that would convey storm water runoff off-site in a manner that would not cause substantial flooding on- or off-site, resulting in a reduction in peak flows from the Project site. Thus, downstream erosion impacts would be reduced under the proposed Project as compared to the NDA. Compared to the proposed Project, the NDA also would increase impacts to the capacity of existing or planned storm water drainage systems as well as polluted runoff because it would not result in the storm drain improvements and water quality retention basins that are proposed by the Project.

Neither the proposed Project nor the NDA would result in the construction of housing or structures within a mapped flood hazard area. Thus, impacts associated with housing or structures in flood plains would not occur under the NDA or the proposed Project.

### *I. Land Use and Planning*

Under the NDA, there would be no applications for a General Plan Amendment, Change of Zone, Specific Plan Amendment, or Specific Plan. Neither the NDA nor the proposed Project would have the potential to physically divide an established community, as the only residential areas surrounding the Project site occur to the east. However, the NDA would not implement the site's General Plan land uses, and would therefore result in increased impacts due to a conflict with the City's General Plan. Although implementation of the NDA would reduce the Project's unavoidable impact due to a conflict with the MSHCP, there would be no land

dedication as part of the NDA and no part of the Project site would be considered conserved pursuant to the MSHCP; therefore, while impacts would be reduced due to the fact the Project site would remain undeveloped, the NDA would not eliminate the Project's significant and unavoidable impact due to a conflict with the Cell Conservation Criteria affecting the northern 45.4 acres of the Project site.

### *J. Noise*

Under the NDA, no construction or development would occur on site. Thus, although the Project would result in less-than-significant impacts with mitigation to nearby sensitive receptors during both construction and operation, the NDA would not result in any noise increase and thus impacts due to the exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies would be avoided under this Alternative. Similarly, the Project's less-than-significant impacts due to ground borne vibration or ground borne noise levels would be avoided under this Alternative. There also would be no substantial permanent or temporary increase in ambient noise levels in the Project vicinity under the NDA, and would avoid the Project's less-than-significant impacts (with mitigation). The Project site is no located within two miles of any public or private airports. The Project site is not located within any known Airport Influence Area or Airport Safety Zone for any public airports. Thus, neither the NDA nor the proposed Project would expose sensitive receptors to excessive aircraft-related noise.

### *K. Paleontological Resources*

The Project site has a "Low Potential" to yield nonrenewable paleontological resources. Although Project-related impacts to paleontological resources would be less than significant, the NDA would not involve the construction of any new uses, there is no potential for impacting paleontological resources. Thus, impacts under the NDA would be slightly reduced in comparison to the proposed Project.

### *L. Population and Housing*

The NDA would not involve any new development, including utility connections, and would completely avoid the Project's less-than-significant impacts due to the inducement of substantial population growth in the area. Because there are no homes or residents on site under existing condition, neither the NDA nor the Project would result in the displacement of substantial numbers of people or housing and no impact would occur.

### *M. Public Services*

The proposed Project's impacts to public services would be less than significant. The NDA would not result in any new development within the Project site, and would not result in any increase in demand for public services. Accordingly, the proposed Project's less-than-significant impacts associated with public services would be avoided under this Alternative.

### *N. Recreation*

Under the NDA, there would be no development on site; thus, under the NDA, there would be no increase in demand for recreational resources. Thus, the NDA would avoid the Project's less-than-significant impacts (with mitigation) due to the construction of recreational facilities on site. The NDA also would not result in

an increase in the City's population, and therefore would avoid the Project's less-than-significant impacts due to the physical deterioration of existing recreational facilities.

### O. *Transportation and Traffic*

Under the NDA, no new development would occur; therefore, no traffic impacts would occur. As a result, the Project's direct and cumulatively-considerable impacts to transportation/traffic would be avoided under the NDA, including impacts that are evaluated as significant and unavoidable on a direct and/or cumulatively-considerable basis. Additionally, because no traffic would be generated under this Alternative, the proposed Project's significant direct and cumulatively-considerable impacts to the local roadway system and CMP facilities would be avoided under this Alternative.

### P. *Tribal Cultural Resources*

Under the NDA, no new ground disturbance would occur. As such, the NDA would avoid the Project's significant but mitigable impacts to Tribal Cultural Resources (TCRs) that may be buried beneath the site's surface and that could be impacted during grading and ground-disturbing activities. No impact would occur under the NDA.

### Q. *Utilities and Service Systems*

The proposed Project's impacts associated with utilities and service systems would be less than significant. Because no development would occur under the NDA, no potential impacts would occur associated with utilities and service systems. Accordingly, implementation of the NDA would avoid the proposed Project's less-than-significant impacts to utilities and service systems.

### R. *Conclusion*

Implementation of the NDA would result in no physical environmental impacts beyond those that have historically occurred on the undeveloped property following completion of reclamation activities on site. Almost all effects of the proposed Project would be avoided or lessened by the selection of this Alternative, although a few new impacts, such as sedimentation impacts, would be increased under this Alternative. Because this Alternative would avoid almost all of the Project's impacts, it warrants consideration as the "environmentally superior alternative." However, pursuant to CEQA Guidelines § 15126.6(e)(2), if a no project alternative is identified as the environmentally superior alternative," then the EIR shall also identify an environmentally superior alternative among the other alternatives. Accordingly, the Reduced Project Alternative (RPA), as discussed in subsection 6.3.3, is identified as the environmentally superior alternative.

The NDA would fail to meet all the Project's objectives. The NDA would not result in the efficient development of the property with a complementary mix of land uses, including residential, commercial, recreational, and open space land uses. The NDA would not establish a master-planned community in a manner that is sensitive to the environment as well as visually and functionally compatible with surrounding existing and proposed land uses. The NDA would not facilitate development of the site with a mixed-use community with a design that takes topographic, geologic, hydrologic, and environmental opportunities and constraints into consideration to minimize alterations to Stovepipe Creek, where practical. The NDA also

would fail to increase the available housing supply within the region by providing detached single-family homes in traditional subdivision layouts that will be marketable within the evolving economic profile of the City of Lake Elsinore and surrounding communities. The NDA would fail to facilitate construction of commercial and hotel uses within proximity to regional transportation facilities that would provide for employment opportunity and that can attract tenants at competitive lease rates to help ensure that the uses are occupied and positively contribute to the local economy. The NDA also would not provide a system of public and community facilities, including recreational facilities and trails, in an efficient and timely manner and meet the needs of residents of surrounding communities. The NDA also would not involve project design elements such as architecture, landscaping, color, paving, walls, fencing, signage, entry treatments, and other similar design features that would ensure the community is developed in a manner that is aesthetically pleasing. There would be no development phasing under the NDA, and the NDA would not provide for development on the site with complementary mixed uses in a manner that preserves, to the extent feasible, natural drainages.

### 6.3.2 No Project / General Plan Land Use Alternative (GPLUA)

The No Project/General Plan Land Use Alternative (GPLUA) considers development of the 72.5-acre Project site in accordance with the site's existing land use designations. For the northern 45.4 acres of the Project site, development would occur in conformance with the Alberhill Ranch Specific Plan (ARSP), which allows for up to 380,000 s.f. of regional general commercial uses. The southern 27.1 acres of the Project site would be developed in conformance with the underlying General Plan land use designation of "General Commercial," which allows for retail, services, restaurants, professional and administrative offices, hotels and motels, mixed-use projects, public and quasi-public uses, and similar and compatible uses. For purposes of analysis, it is assumed that the GPLUA would be developed to the maximum Floor Area Ratio (FAR) of 0.40 for the southern 27.1 acres of the site, which would allow for up to 472,190 s.f. of commercial area. Thus, this Alternative would allow for approximately 852,190 s.f. of general commercial building area, for an overall FAR of 0.27. Consistent with the NRSP, this Alternative proposes a bridge crossing over Stovepipe Creek slightly to the east of the location of the Project's proposed crossing. Similar to the proposed Project, it is assumed that Stovepipe Creek would be preserved on site on 6.5 acres. Additionally, under this alternative there would be a connection to El Toro Road/Wood Mesa Court near the Project's southeastern boundary.

#### *A. Aesthetics*

Although neither the proposed Project nor the GPLUA would result in a substantial adverse effect on a scenic vista, because commercial buildings would be developed at a greater height than residential units impacts to scenic vistas under the GPLUA would increase as compared to the proposed Project. The Project site is not visible from any officially-designated state scenic highways, and there are no scenic resources on site; thus, impacts to scenic highways would be similar under the GPLUA and the proposed Project. Neither the Project nor the GPLUA would result in the substantial degradation of the site's existing visual character, although given the intensity of development under the GPLUA impacts due to visual character or quality would be increased under the GPLUA as compared to the proposed Project, although impacts would be less than significant. Commercial land uses would result in an increase in the amount of artificial lighting at the site; thus, impacts due to lighting would be increased as compared to the Project, but would still be below a level of significance.

### B. Air Quality

As indicated in Table 4-4 of the Project's Traffic Impact Analysis ("TIA," *Technical Appendix L*), development of the site with commercial land uses as proposed under the GPLUA would result in approximately 11,114 more average daily traffic (ADT) as compared to the proposed Project, or nearly three times the amount of traffic that would be generated by the Project. Thus, implementation of the GPLUA would result in a substantial increase in the Project's significant and unavoidable direct and cumulatively-considerable impact due to a conflict with the SCAQMD AQMP. Likewise, emissions of $NO_X$ under the GPLUA would substantially increase during both construction and operation, and could result in additional exceedances of the SCAQMD Regional Thresholds, such as VOCs or $PM_{10}$; thus, the GPLUA would increase the Project's significant and unavoidable impact due to violation of an air quality standards, contribution of air quality pollutants to an existing air quality violation, and due to a cumulatively-considerable net increase of criteria pollutants for which the project region is non-attainment. Implementation of the GPLUA also would increase the Project's near- and long-term localized emissions, and could therefore result in increased impacts due to the exposure of sensitive receptors to substantial pollutant concentrations. While construction and operational impacts due to odors would be less than significant under both the Project and GPLUA, the GPLUA would involve more intensive construction on site, and therefore would result in an increase in the Project's less-than-significant impacts due to construction-related odors.

### C. Biological Resources

The GPLUA would have a similar development footprint compared to the proposed Project and would involve similar limits of physical disturbance that could impact sensitive plant and animal species. Thus, the GPLUA would have similar impacts to the proposed Project on habitat for the California glossy snake and coast patch-nosed snake and also would result in similar impacts to the burrowing owl, nesting birds, and roosting bats. Both the Project and the GPLUA would result in significant but mitigable impacts to 0.23 acre of Riversidean sage scrub, 0.14 acre of disturbed Riversidean sage scrub, 0.07 acre of Riversidean alluvial fan sage scrub, and 0.14 acres of disturbed Riversidean sage scrub-encelia dominant. The Project and the GPLUA would result in similar impacts to CDFW and RWQCB jurisdiction, including Riversidean alluvial fan sage scrub, although the impacts would be slightly different because the bridge over Stovepipe Creek under the GPLUA would occur slightly to the east of the bridge proposed by the Project. The Project and GPLUA both would result in similar less-than-significant impacts to migratory wildlife corridors and wildlife nursery sites. Both the Project and GPLUA would be subject to payment of fees pursuant to Lake Elsinore Municipal Code Chapters 16.85 and 19.04, thereby ensuring that impacts due to a conflict with policies or ordinances protecting biological resources would be less than significant. Although impacts to biological resources under the GPLUA and the proposed Project would be mitigated to below a level of significance, both the Project and GPLUA would conflict with the MSHCP conservation goals for MSHCP Cell Group W; thus, both the Project and the GPLUA would result in similar significant and unavoidable impacts due to a conflict with the MSHCP.

### D. Geology and Soils

The Project site is not located within an Alquist-Priolo Fault Zone, but as with all areas of southern California, future buildings, residents, and visitors have the potential to be exposed to ground shaking. The potential impact would be the same for the proposed Project and the GPLUA. Additionally, the impacts due to seismic-related ground failure, ground shaking, location on a geologic unit or soil, subjectivity to geologic hazards,

grading that would affect subsurface sewage disposal systems, and location on expansive soils would be similar between the proposed Project and the GPLUA. Both the Project and the GPLUA would physically disturb a 73.8-acre on-site area, and thus have similar potential to result in deposition, siltation or erosion that may modify a river channel, an increase in water erosion, and/or an increase in wind erosion due to the similar disturbance area. Additionally, impacts associated with liquefaction, landslides, collapsible soils, mudflow, and expansive soils would be similar due to the nature of these issues being site-specific and the similar limits of disturbance inherent to both the proposed Project and the GPLUA. Thus, impacts under the GPLUA would be similar as compared to the proposed Project with respect to geology and soils.

### *E. Greenhouse Gas Emissions*

As indicated in Table 4-4 of the Project's Traffic Impact Analysis ("TIA," *Technical Appendix L*), development of the site with commercial land uses as proposed under the GPLUA would result in approximately 11,114 more average daily traffic (ADT) as compared to the proposed Project, or nearly three times the amount of traffic that would be generated by the Project. Because a majority of the Project's GHG emissions would associated with vehicular travel, impacts due to GHG emissions would be substantially increased under this Alternative as compared to the proposed Project. Both the Project and the GPLUA would be subject to compliance with the City of Lake Elsinore CAP, AB 32, SB 32, and the CARB Scoping Plan; however, due to the substantial increase in GHG emissions as compared to the proposed Project, it is likely that the GPLUA would result in a conflict with one or more applicable plan, policy, or regulation adopted to reduce GHGs. Thus, impacts due to GHG emissions under the GPLUA would be substantially increased as compared to the proposed Project.

### *F. Hazards and Hazardous Materials*

Land uses that would occur on-site under the GPLUA would have the same or similar potential to handle and store hazardous material as the proposed Project. With mandatory regulatory compliance, neither the GPLUA nor the proposed Project would pose a significant hazard to the public or the environment. The proposed Project and GPLUA would have a less-than-significant impact to impair an adopted emergency response plan, emit hazardous materials within a quarter mile of a school, and be on a list of hazardous materials sites. Neither the proposed Project nor the GPLUA would require review by the Airport Land Use Commission, and neither the Project nor the GPLUA is located within an Airport Influence Area or Airport Safety Zone, and impacts would be less than significant. The Project and the GPLUA are subject to wildland fire hazards. However, both the Project and the GPLUA would be required to implement fuel modification zones between residential lots and natural open space areas. Thus, with mandatory compliance and mitigation, the Project and the GPLUA would have similar less-than-significant impacts related to hazards and hazardous materials.

### *G. Historic and Archaeological Resources*

Based on the Project's archaeological assessment, the Project site contains one prehistoric resource site (Site P-33-026830) and one historic site (Site RIV-8120), neither of which are evaluated as significant under CEQA. The GPLUA would disturb the same area on-site as the Project and thus would result in similar impacts to these sites. No cemetery or human remains are known to be present on the Project site. Due to ground disturbing activities proposed by the Project and the GPLUA, there is a similar potential to uncover previously unknown human remains or previously unknown archeological resources buried beneath the surface. The

Project and the GPLUA would similarly not impact any existing religious or sacred uses within the proposed impact area. Accordingly, all potential impacts associated with cultural resources would be similar under this GPLUA.

### *H. Hydrology and Water Quality*

The proposed Project would disturb the same acreage as the GPLUA. Construction-related impacts under the GPLUA would expose the same amount of soil that could result in sedimentation in runoff from the site as compared to the proposed Project. Thus, a similar impact would occur.

Under long-term operating conditions, the GPLUA would increase impervious surfaces as compared to the proposed Project because under the GPLUA the 8.3 acres that are proposed for recreational facilities under the Project would instead be developed with commercial land uses, which in turn would result in the generation of increased amounts of polluted storm water runoff as compared to the Project. Additionally, peak runoff volumes under the GPLUA would be greater in relation to the Project. Impacts under the proposed Project and the GPLUA would be mitigated to a level below significant. The GPLUA has the same potential as the proposed Project to alter the drainage pattern of the Project site. Neither the GPLUA nor the proposed Project would result in significant impacts associated with on-site flood hazards or on-site impacts due to the failure of a dam or levee.

In summary, near-term construction activities of the GPLUA would result in similar less-than-significant impacts to hydrology and water quality in comparison to the proposed Project, while the GPLUA would result in increased (though less-than-significant) hydrology and water quality impacts in comparison to the Project under long-term operational characteristics.

### *I. Land Use and Planning*

Neither the GPLUA nor the proposed Project would result in the physical division of an established community; thus, impacts would be similar. Both the proposed Project and the GPLUA would compatible with the surrounding land uses. The proposed Project would entail changing the site's existing General Plan, zoning, and Specific Plan classifications, while the GPLUA is consistent with existing zoning. The Project and the GPLUA would result in similar insignificant environmental effects due to an inconsistency or incompatibility associated with the existing or proposed zoning classifications or land use designations. Additionally, both the Project and the GPLUA would be consistent with all applicable policies of the General Plan and Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS). However, both the GPLUA would conflict with the MSHCP Cell Criteria as applied to the northern 45.4 acres of the site, resulting in a significant and unavoidable impact to land use and planning.

### *J. Noise*

As indicated in Table 4-4 of the Project's Traffic Impact Analysis ("TIA," *Technical Appendix L*), development of the site with commercial land uses as proposed under the GPLUA would result in approximately 11,114 more average daily traffic (ADT) as compared to the proposed Project, or nearly three times the amount of traffic that would be generated by the Project. As such, the GPLUA would result in a substantial increase in off-site traffic-related noise, and has the potential to result in the exposure of residential uses to excessive noise

levels. Thus, traffic-related noise would increase under the GPLUA. Construction characteristics associated with the GPLUA and proposed Project would be similar, although slightly more intense under the GPLUA; thus, both the GPLUA and proposed Project would be required to implement mitigation in order to reduce potential construction and ground-borne noise and vibration impacts to less-than-significant levels. Due to the increased intensity of site operations under the GPLUA as compared to the proposed Project, operational noise levels would increase and have the potential to expose nearby sensitive receptors (i.e., residences and the high school) to excessive operational-related noise; thus, impacts due to a permanent increase in noise levels would be increased under this Alternative. Neither the Project nor the GPLUA would be exposed to excessive noise levels associated with public or private airports, and impacts would be similar.

### K. Paleontological Resources

The Project site was identified as having a "Low Potential" to yield nonrenewable paleontological resources. The physical disturbance area under the proposed Project and the GPLUA would be identical, impacts to paleontological resources would be identical under the Project and the GPLUA and would be less than significant due to the Project site's "Low Potential" to yield paleontological resources.

### L. Population and Housing

Neither the Project nor the GPLUA has the potential to induce substantial population growth in the area, as both would be served by infrastructure that is sized only to serve development on site. Because there are no homes or residents on site under existing condition, neither the GPLUA nor the Project would result in the displacement of substantial numbers of people or housing and no impact would occur.

### M. Public Services

Development of the Project site with 852,190 s.f. of general commercial uses would result in an increased demand for fire protection and police services as compared to the Project due to the increased intensity of development. Because no residences would be constructed on site under the GPLUA, the GPLUA would avoid the Project's less-than-significant impacts (with mitigation) to schools, parks, and libraries.

### N. Recreation

The GPLUA does not propose any residential uses. Thus, the GPLUA would avoid the Project's less-than-significant impact due to the physical deterioration of existing recreational facilities. Additionally, because no recreational facilities would be developed on site under the GPLUA, the GPLUA would avoid the Project's less-than-significant impacts due to the construction of recreational facilities on site that may have an adverse physical effect on the environment.

### O. Transportation and Traffic

As indicated in Table 4-4 of the Project's Traffic Impact Analysis ("TIA," *Technical Appendix L*), development of the site with commercial land uses as proposed under the GPLUA would result in approximately 18,015 Average Daily Trips (ADT) as compared to the 6,901 ADT that would be generated by the Project. Although traffic during the AM peak hour would be increased by 14 trips, peak hour trips during the peak hour would be decreased by 1,240 trips. Thus, implementation of the GPLUA would result in increased impacts due to

traffic that results in or contributes to deficient levels of service (LOS). Thus, implementation of the GPLUA would result in a substantial increase in impacts to intersections, traffic signal warrants, off-ramp queuing, freeway segments, and freeway merge/diverge locations as compared to the proposed Project. In fact, it is likely that the GPLUA would result in deficient LOS at more facilities than would occur under the proposed Project, including Riverside County Congestion Management Program (CMP) facilities. Neither the proposed Project nor the GPLUA would result in a substantial change in air traffic patterns. Both the proposed Project and the GPLUA would be designed to City standards and would not increase hazards due to a design feature. Also, land uses proposed under both the GPLUA and the Project would be compatible with school and residential uses to the south and east, respectively. Neither the GPLUA nor the Project would result in inadequate emergency access, as the Project site is not identified as an emergency access route. The Project and the GPLUA both would be required to accommodate General Plan trails and bicycle facilities, including a Class II bike lane on Nichols Road, a Regional Trail along Nichols Road, and a County Regional Trail in the southern portions of the Project site.

### *P. Tribal Cultural Resources*

Areas proposed for disturbance under the GPLUA would be identical to the proposed Project. Although neither the Project nor the GPLUA would impact any known TCRs, both the Project and the GPLUA have the potential to impact TCRs that may be buried beneath the site's surface and that could be impacted during grading or ground-disturbing activities. As with the Project, the GPLUA would be subject to Mitigation Measures MM 4.8-1 through MM 4.8-4, which would ensure that grading and other ground-disturbing activities during construction are monitored by a qualified archaeologist as well as tribal monitors. The mitigation further requires the proper treatment of any resources that may be uncovered, and the avoidance of disturbance in areas where potential resources are uncovered. With implementation of the required mitigation, impacts would be reduced to less-than-significant levels under both the GPLUA and proposed Project, and the level of impact would be the same.

### *Q. Utilities and Service Systems*

Selection of the GPLUA would result in an increased demand for water, sewer, and storm water drainage service/facilities than the proposed Project as the GPLUA would have more impervious surface than the proposed Project and would have a higher demand for water and sewer services. In addition, the GPLUA would result in an increased demand for solid waste collection and disposal services as compared to the proposed Project because commercial land uses generate more solid waste than residential uses. Neither the proposed Project nor the GPLUA would result in significant direct or cumulatively-considerable impacts to utilities and service systems, but impacts would be increased under the GPLUA due to the increase in development intensity as compared to the proposed Project.

### *R. Conclusion*

As compared to the proposed Project, the GPLUA would have increased impacts to the following issue areas: aesthetics; air quality; greenhouse gas emissions; hydrology and water quality; noise; transportation and traffic; and utilities and service systems. The GPLUA would result in similar impacts under the following issue areas: biological resources; geology and soils; hazards and hazardous materials; historic and archaeological resources; land use and planning; paleontological resources; population and housing; and tribal cultural

resources. The GPLUA would result in reduced impacts to the following issues: recreation; and utilities and service systems. Impacts to fire and police services would increase under the GPLUA as compared to the Project, while impacts to schools, parks, and libraries would be reduced as compared to the Project.

The GPLUA would not meet many of the Project's objectives. The GPLUA would not provide for a complementary mix of land uses, including residential, commercial, recreational, and open space land uses. Although no Specific Plan has been adopted for the southern 27.1 acres of the site, it is likely that the GPLUA would meet the Project's objective to establish a master-planned community in a manner that is sensitive to the environment as well as visually and functionally compatible with surrounding existing and proposed land uses. The GPLUA would not develop a "mixed-use community," but would meet the Project's objective to account for topographic, geologic, hydrologic, and environmental opportunities and constraints into designs for the site. The GPLUA proposes no dwelling units, and thus would not increase the available housing supply within the region. The GPLUA could be designed to meet the Project's objective to construct commercial and hotel uses within proximity to regional transportation facilities that will provide for employment opportunity and that can attract tenants at competitive lease rates to help ensure that the uses are occupied and positively contribute to the local economy. The GPLUA would not, however, provide a system of public and community facilities, including recreational facilities and trails, in an efficient and timely manner and meet the needs of residents of surrounding communities. It is anticipated that the GPLUA would meet the Project's objective to require project design elements such as architecture, landscaping, color, paving, walls, fencing, signage, entry treatments, and other similar design features that would ensure the community is developed in a manner that is aesthetically pleasing. It is anticipated that the GPLUA would be developed in a logical phased manner. Although the GPLUA would not provide for a complementary mix of land uses, the GPLUA would meet the Project's objective to preserve, to the extent feasible, natural drainages on site.

### 6.3.3 Reduced Project Alternative

The Reduced Project Alternative (RPA) considers development of the Project site with a reduced number of dwelling units and commercial square footage in order to reduce the Project's significant and unavoidable impacts to air quality and traffic/transportation. Specifically, the RPA accommodates up to 104 "Low-Medium Residential" dwelling units on 38.4 acres at an overall density of 2.7 dwelling units per acre (du/ac); 7.2 acres of "General Commercial" land uses, which could accommodate up to 125,453 s.f. of general commercial land uses (at a maximum Floor Area Ratio [FAR] of 0.40); 8.3 acres of "Recreational (Park)" land uses; 1.3 acres of "Open Space" land uses; "Public Institutional (Drainage Basin)" land uses on 5.5 acres; "Floodway" (open space" land uses on 6.5 acres; and 5.3 acres of backbone circulation facilities. Except for the reduction in the number of dwelling units and areas proposed for commercial, all remaining components of the RPA would be the same as the proposed Project, including areas subject to grading and disturbance. This alternative was selected for evaluation by the Lead Agency to compare the environmental effects of the proposed Project against an alternative that would reduce the Project's significant and unavoidable impacts to air quality and traffic/transportation by reducing the total number of dwelling units and commercial square footage on the Project site.

### A. *Aesthetics*

Areas proposed for development under the RPA would be identical to the proposed Project, although there would be fewer residential dwelling units and less commercial acreage under the RPA. For both the RPA and the proposed Project, the Project site would be converted from undeveloped land to a mixed-use community. Consistent with the findings for the proposed Project, the RPA would not have a substantial adverse effect on a scenic vista, as views of regional scenic resources would continue to be available in the surrounding areas and within parks and open space areas on site. As such, impacts to scenic vistas would be similar under the proposed Project and the RPA, and would be less than significant.

The Project site is not visible from any officially-designated scenic highways. Although I-215 is identified as a "State Eligible" scenic highway, both the RPA and the proposed Project would have similar less-than-significant impacts on this facility because development of the Project site would simply appear as a continuation of existing urban development patterns in the area.

Both the Project and the RPA would be subject to compliance with the Nichols Ranch Specific Plan (NRSP), which have been crafted to ensure that future development on-site is aesthetically pleasing and not visually offensive. Although there would be a difference in land uses under the RPA, both the RPA and proposed Project would be developed in a manner that is consistent with the transitioning mixed-use character of the surrounding area, including existing residential developments to the east, commercial development to the southwest, and an existing high school to the south. In addition, with mandatory compliance to the proposed NRSP, the Project and the RPA would be developed in a manner that is not visually offensive either on-site or within the context of surrounding uses and planned development. As such, impacts to visual character and quality would be similar under the RPA and proposed Project and would be less than significant.

The Project and the RPA both would be subject to the lighting requirements set forth in the Lake Elsinore Municipal Code and in the NRSP. Thus, impacts due to lighting and glare would be similar under the Project and RPA and would be less than significant.

### B. *Air Quality*

Implementation of the RPA would result in less construction activity overall due to the reduction in the number of dwelling units and a reduction in area devoted to general commercial land uses. Additionally, the RPA would result in a substantial reduction in operational emissions, primarily associated with traffic, due to the reduced number of dwelling units and areas proposed for commercial land uses. As such, the RPA would result in a substantial reduction in emissions of air quality pollutants as compared to the proposed Project. Although impacts would be reduced, the RPA would continue to exceed the South Coast Air Quality Management District (SCAQMD) Regional Thresholds for $NO_X$. As such, the RPA would result in significant and unavoidable impacts due to a conflict with the SCAQMD Air Quality Management Plan (AQMP), although such impacts would be reduced in comparison to the proposed Project.

Areas proposed for grading under the RPA would be similar to the proposed Project. As such, both the RPA and proposed Project would result in similar significant and unavoidable impacts due to $NO_X$ emissions during construction, as the majority of construction-source $NO_X$ emissions would be from soil import activities. With

respect to other phases of construction, the RPA proposes fewer buildings (i.e., fewer dwelling units and less commercial area) as compared to the proposed Project, so air quality emissions associated with this phase of construction would be reduces as compared to the Project. Nonetheless, both the Project and the RPA would result in significant and unavoidable impacts due to construction-related $NO_X$ emissions, and such impacts would be similar.

For long-term operation, the RPA would result in a reduction in traffic as compared to the proposed Project due to the reduction of dwelling units and areas proposed for commercial uses. As such, air quality emissions associated with the RPA would be reduced in comparison to the proposed Project. Although impacts would be reduced under the RPA, both the RPA and proposed Project would result in operational $NO_X$ emissions that exceed the SCAQMD Regional Thresholds, and impacts would be significant and unavoidable.

Neither the proposed Project nor the RPA would result in CO "Hot Spots."

As noted above, areas proposed for development are similar between the RPA and proposed Project, and the same amount of grading would be required. Thus, both the Project and the RPA would result in localized air quality impacts due to $PM_{10}$ and $PM_{2.5}$ emissions during construction. With implementation of applicable regulations and design requirements as well as compliance with Mitigation Measure MM 4.2-1, impacts due to localized construction emissions of $PM_{10}$ and $PM_{2.5}$ that exceed the SCAQMD Localized Significance Thresholds would be reduced to less-than-significant levels.

Neither the proposed Project nor the RPA would involve stationary land uses that have the potential for air quality impacts. Additionally, neither the RPA nor the Project would attract substantial amount of mobile sources that may spend long periods queuing and idling at the site (e.g., transfer facilities and warehouse buildings). Thus, neither the Project nor the RPA would result in localized air quality impacts due to operational emissions.

Neither the Project nor the RPA would result in impacts due to odors during long-term operation or construction; thus, impacts would be less than significant and would be similar.

### C. *Biological Resources*

Areas proposed for physical disturbance by the RPA are identical to the proposed Project. As such, the RPA and the proposed Project would result in identical significant impacts to sensitive species, and mitigation would be required to reduce these impacts to below a level of significance.

Similarly, because areas proposed for physical disturbance are the same, both the Project and the RPA would result in impacts to 2.58 acres of native vegetation types, including 0.38 acre of Riversidean sage scrub, 0.40 acre of disturbed Riversidean sage scrub, 0.07 acre of Riversidean alluvial fan sage scrub, and 1.73 acres of disturbed Riversidean sage scrub-encelia dominant. Impacts to native vegetation types within the MSHCP Project Area would be less than significant due to compliance with the MSHCP in this portion of the Project site. However, for the MSHCP-Excluded Project Area, impacts to 0.23 acre of Riversidean sage scrub, 0.14 acre of disturbed Riversidean sage scrub, 0.07 acre of Riversidean alluvial fan sage scrub, and 0.14 acres of disturbed Riversidean sage scrub-encelia dominant, would represent a significant impact. With

implementation of the mitigation measures specified in EIR Subsection 4.3, impacts for the proposed Project and RPA would be reduced to less-than-significant levels and would be similar.

Both the RPA and the proposed Project would result in direct impacts to 0.44 acre of CDFW and RWQCB jurisdiction including 0.07 acre of Riversidean alluvial fan sage scrub. However, implementation of the mitigation measures specified in EIR Subsection 4.3 would reduce these impacts to less-than-significant levels.

The Project site lacks migratory wildlife corridors and wildlife nursery sites and does not occur within MSHCP Cores or Linkages. However, the Project Study Area occurs within an area that may serve a function in local wildlife movement such as dispersal and foraging. Both the Project and the RPA would preserve and avoid the on-site portion of Stovepipe Creek and preserve the majority of the sage scrub habitats located on-site which serve as local wildlife corridors. Therefore, both the Project and the RPA would have a less-than-significant impact on native resident or migratory wildlife corridors or wildlife nursery sites, and impacts would be similar.

Under both the RPA and the proposed Project, the Project Applicant would be required to comply with all applicable local policies and ordinances protecting biological resources, including Lake Elsinore Municipal Code Chapter 19.04 (requiring payment of Stephens' kangaroo rat conservation fees) and Chapter 16.85 (requiring payment of MSHCP fees). Additionally, neither the Project nor the RPA would conflict with the City's palm tree preservation program (Chapter 5.116 of the Lake Elsinore Municipal Code). Impacts would be less than significant, and would be similar for both the RPA and the proposed Project.

The northern 45.4 acres of the Project site are exempt from the MSHCP pursuant to a Settlement Agreement and Memorandum of Understanding ("Agreement") between the County of Riverside and a prior owner of the Project site. Both the RPA and the Project propose development of the northern 45.4 acres of the site, which are largely targeted for conservation under the MSHCP. As such, both the Project and the RPA would result in similar significant and unavoidable impacts due to a conflict with the MSHCP.

### *D. Geology and Soils*

Construction and development characteristics associated with the RPA are very similar to the proposed Project. Thus, both the Project and the RPA would result in significant impacts associated with the exposure of people or structures to adverse effects, including loss, injury, or death as a result of strong seismic ground shaking. Additionally, the Project site is subject to hazards associated with lateral spreading, liquefaction, and collapse. Both the Project and the RPA would be subject to compliance with the Project's geotechnical study, as required by Mitigation Measure 4.4-1, which would reduce impacts to less-than-significant levels.

### *E. Greenhouse Gas Emissions*

Under the RPA, emissions of greenhouse gases (GHGs) would be substantially reduced in comparison to the proposed Project due to the reduction in the number of dwelling units and commercial area. Both the Project and the RPA would be subject to compliance with the City's Climate Action Plan (CAP); however, the City's CAP does not adequately address the GHG reduction targets established by Senate Bill 32 (SB 32). However, with implementation of the mitigation specified in EIR Subsection 4.5, impacts due to GHG emissions would

be reduced to less-than-significant levels under both the Project and the RPA. Similarly, impacts due to a conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases would be reduced to less-than-significant levels under both the Project and the RPA with implementation of the required mitigation. Nonetheless, because overall emissions would be reduced under the RPA (especially due to the reduction in vehicular traffic), impacts due to GHG emissions would be reduced under the RPA as compared to the proposed Project.

### *F. Hazards and Hazardous Materials*

During construction and operation of both the Project and the RPA, mandatory compliance with federal, state, and local regulations would reduce to less-than-significant levels impacts due to a significant hazard to the public or environment through the routine transport, use, or disposal of hazardous materials. However, because the RPA would introduce fewer commercial uses than the proposed Project, potential impacts would be reduced under the RPA in comparison to the proposed Project.

Under existing conditions, no hazards were found on the Project site; thus, no impacts due to existing site contamination would occur under the Project or RPA. During construction and operation, mandatory compliance with federal, state, and local regulations would ensure that the Project and the RPA would not create a significant hazard to the public or the environment through accident conditions involving the release of hazardous materials. Thus, the Project and the RPA would not create a significant hazard to the public or environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials in the environment. However, due to the reduction in commercial area, the RPA would have slightly reduced impacts in comparison to the proposed Project.

The Project site is located immediately adjacent to the Temescal Canyon High School. The only component of the Project or the RPA that would have the potential to emit hazardous emissions or handle hazardous materials on-site would gas station uses within the proposed commercial area. Any proposed gas station would handle hazardous materials within one-quarter mile of a school; however, any such gas station's hazardous emissions would be below the cancer-related hazardous risk threshold established by SCAQMD and would be subject to regulatory requirements and routine inspections. The remaining proposed uses for the Project site by the RPA and proposed Project are not associated with the transport, use, or disposal of significant quantities of hazardous materials. Thus, the Project's impact due to emitting hazardous emissions or handle hazardous materials within one-quarter mile of an existing or proposed school would be less than significant under both the Project and RPA, although impacts under the RPA would be reduced in comparison to the proposed Project if no gas station were proposed.

The Project site is not located on any list of hazardous materials sites compiled pursuant to Government Code § 65962.5. Accordingly, no impact would occur under the RPA or the proposed Project, and impacts would be similar.

The Project site is not located within an airport land use plan or within two miles of a public airport or public use airport. The nearest public airport is the March Air Reserve Base, located approximately 12 miles northeast of the Project site, and the Project is not located within the AIA of the March Air Reserve Base. The nearest airport to the proposed Project is Skylark Field, a private use airport located 5.7 miles southeast of the Project

site. The Project site is not within the AIA for Skylark Field. As such, neither the proposed Project nor the RPA would expose people residing or working in the area to safety hazards associated with public airports, and impacts would be less than significant and similar under both alternatives.

The Project site is located approximately 5.7 miles southeast of the Skylark Field, which is the nearest private airstrip to the Project site. The Project site is not located within the AIA for this facility, and operations at Skylark Field are unlikely to create a safety hazard for people working or residing in the Project area. Impacts would be less than significant under both the RPA and proposed Project, and impacts would be similar.

Neither the Project nor the RPA would impair or physically interfere with an adopted emergency response plan or emergency evacuation plan. No emergency facilities exist on the Project site, and the site does not serve as an emergency evacuation route and the Project would be required to maintain access during construction. Thus, both the Project and RPA would result in similar less-than-significant impacts.

According to the City of Lake Elsinore General Plan Update EIR, the Project site is identified as having a "High" and "Very High" susceptibility to wildfires. Nichols Road, El Toro Road, Wood Mesa Court, and I-15 would provide buffers around the Project site. A buffer distance of between 30-60 feet as provided by these roads and the buffer as provided by I-15 would reduce the site's potential for fire hazards. In addition, both the Project and the RPA would be subject to mandatory compliance with the recommendations of the FPP as required by the NRSP, which requires implementation of fuel modification zones and other fire hazard design features on the Project site. Furthermore, the Project site under both the Project and the RPA would be developed in a manner consistent with jurisdictional requirements for fire protection and would generally decrease the fire hazard in the local area. As such, impacts regarding wildland fires would be less than significant under both the RPA and the proposed Project. However, because the RPA would introduce fewer structures and residents/workers to the Project site as compared to the Project, impacts due to fire hazards would be slightly reduced under the RPA as compared to the proposed Project.

### *G. Historic and Archaeological Resources*

Areas subject to physical disturbance by the RPA would be identical to the proposed Project. Both the Project and RPA would impact one (1) known historical resource (Site RIV-8120) on the Project site. However, Site RIV-8120 is not determined significant pursuant to the criteria given in CEQA Guidelines § 15064.5. Also, there are no other known archaeological resources at the Project site. Accordingly, the Project and RPA would result in less-than-significant impacts to known significant historical resources. Regardless, there is a potential that historical resources may be buried beneath the surface of the site that meet the CEQA definition of a significant resource which could not be unearthed during the Project's construction process. If such resources are unearthed and are not properly identified and treated, the impact would be significant on both a direct and cumulative basis for both the RPA and proposed Project. With implementation of the mitigation measures identified in EIR Subsection 4.7, impacts would be reduced to less-than-significant levels.

Additionally, there is a potential that archaeological resources may be buried beneath the surface of the site that meet the CEQA definition of a significant resource which could be unearthed during construction of the proposed Project or RPA. If such resources are unearthed and are not properly identified and treated, the

impact would be significant. With implementation of the mitigation measures identified in EIR Subsection 4.7, impacts would be reduced to less-than-significant levels.

The Project site does not contain a cemetery and no known cemeteries are located within the immediate site vicinity. In the unlikely event that human remains are discovered during grading or other ground-disturbing activities associated with the Project or the RPA, the Project and RPA would be required to comply with the applicable provisions of California Health and Safety Code § 7050.5 and California Public Resources Code § 5097 et. seq. Mandatory compliance with State law would ensure that human remains, if encountered, are appropriately treated and would preclude the potential for significant impacts to human remains.

### *H. Hydrology and Water Quality*

With implementation of the BMPs from the SWPPP and the WQMP prepared for the Project (which would also apply to the RPA) as well as implementation of the drainage plan that includes two (2) drainage basins for both the Project and RPA, impacts would be less than significant. Because areas proposed for development are similar, impacts under the RPA and Project would be similar.

The Project and the RPA would have a reliable source of domestic water and would not require any new potable water wells that would directly extract groundwater. Groundwater recharge would occur in on-site drainage basins and landscaped areas, and water conveyed off-site would have the ability to percolate into the groundwater table. The Project and RPA would not substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level, and the impact would be less than significant. However, because the RPA would require less water than the proposed Project, impacts to groundwater would be reduced under the RPA as compared to the proposed Project.

Implementation of the BMPs from the required SWPPP and the on-site drainage basins would ensure that construction and operation of the Project and the RPA would not result in substantial erosion or siltation on- or off-site or contribute runoff storm water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff. Accordingly, impacts would be less than significant and would be similar under the RPA and proposed Project.

With implementation of the drainage plan (including the two [2] proposed drainage basins) included as an applicable City Regulation, which would be similar under the Project and the RPA, the Project and the RPA would result in the reduction of peak storm water discharge flows compared to existing conditions. Because the proposed Project and RPA would be designed to attenuate post-development runoff from the site, runoff from the Project and RPA would not substantially increase the rate or amount of surface runoff in downstream areas in a manner that would result in flooding on- or off-site. A less-than-significant impact would occur, and impacts would be similar under the RPA and proposed Project.

Implementation of the Project or RPA would not require construction or expansion of storm water drainage facilities that are not already addressed herein. Construction of the proposed storm drainage improvements is an integral component of the construction phase for both the Project and the RPA, impacts for which have been evaluated throughout this subsection. In each case, impacts are found to be less than significant, or would

be reduced to less than significant levels with the incorporation of mitigation. There are no components of the on-site drainage improvements that would result in environmental effects not addressed in this EIR. Thus, a less-than-significant impact would occur under both the Project and the RPA, and impacts would be similar.

The FEMA FIRM for the Project site indicates that the majority of the Project site is not located within a special flood hazard area, except for Stovepipe Creek which is located within a special flood hazard area. The Project and RPA propose minor modifications to the flood plain limits and the Project Applicant would be required to obtain a CLOMR and LOMR from FEMA to modify the mapped floodplain boundaries. Following the modification of the floodplain boundaries on-site, no development would occur within the revised flood zones under the Project or RPA. Thus, with implementation of regulatory requirements the Project and RPA would not place housing or structures within a 100-year flood hazard area and would not impede or redirect flood flows. Accordingly, potential impacts associated with placing housing or structures within a 100-year flood zone would be less than significant and would be similar under the RPA and proposed Project.

The Project site is located approximately 1.7 miles north of a levee associated with Lake Elsinore, and 4.7 miles northwest of the Railroad Canyon Dam. According to the City of Lake Elsinore General Plan EIR, the Project site is located outside of dam inundation zones. Furthermore, compliance with the City of Lake Elsinore General Plan "Policy and Implementation Plan" applicable to dam inundation as well as the construction of the two (2) drainage basins on-site would ensure that any potential dam inundation hazards associated with future development would be less than significant for both the Project and the RPA. Impacts would be similar.

Based on the 1.8-mile distance and change in topography between Lake Elsinore (the nearest large body of water) and the Project site, the Project and RPA would not be subject to inundation by seiches associated with the body of water. Impacts associated with inundation by seiche would be less than significant. Additionally, due to the approximately 25-mile distance of the Project site from the Pacific Ocean, there is no potential for a tsunami to affect the Project site, and no impact would occur under the Project or RPA. With implementation of the BMPs from the Project-specific SWPPP and Mitigation Measure MM 4.4-1 (refer to EIR Subsection 4.4.7), i hazards associated with mudflows would be less than significant under the Project and RPA. Impacts would be similar under the RPA and proposed Project.

### *I. Land Use and Planning*

The Project and RPA would not physically disrupt or divide any established communities, and no impact would occur under either alternative.

Although the Project and the RPA would require changes the site's existing General Plan land use and zoning classifications, neither the Project nor the RPA would result in a significant environmental effect due to an inconsistency with the site's existing or proposed zoning. Furthermore, the Project and RPA would be consistent with the General Plan and SCAG RTP/SCS goals. Impacts due to a conflict with the land use designations and policies of the General Plan and other planning documents would be less than significant and would be similar under both the RPA and proposed Project.

Under both the Project and the RPA, impacts due to a conflict with the SKR HCP would be less than significant, and impacts due to a conflict with the MSHCP on the southern 27.1 acres of the Project site would be less than significant with the mitigation measures identified in Subsection 4.3 and mandatory payment of MSHCP fees. Although the northern 45.4 acres are exempt from the Western Riverside County MSHCP, neither the Project nor the RPA would implement the MSHCP Conservation Criteria for MSHCP Cell Group W. As such, neither the Project nor the RPA would comply with the MSHCP conservation objective for the northern 45.4 acres of the site. This represents a significant and unavoidable impact of both the Project and RPA. Impacts under both alternatives would be similar.

### *J. Noise*

Both the Project and the RPA would result in construction-related noise levels that exceed the City of Lake Elsinore stationary construction equipment noise level standards for residential and semi-residential (school) uses, although these impacts would be reduced to less-than-significant levels with implementation of the mitigation measures specified in EIR Subsection 4.10. However, because less development would occur under the RPA, near-term construction-related noise impacts would be reduced under the RPA as compared to the proposed Project.

Under both the Project and RPA, off-site traffic-related noise impacts would be less than significant, although such noise impacts would be reduced under the RPA due to the reduction in traffic as compared to the proposed Project.

Both the Project and the RPA would introduce residential structures into areas that may be affected by traffic-related noise or noise associated with operation of the commercial areas on site. Interior and exterior noise impacts associated with the RPA would be slightly increased relative to the proposed Project because the RPA proposes residential units near I-15. Nonetheless, implementation of the mitigation measures identified in EIR Subsection 4.10 would reduce impacts to less-than-significant levels.

Additionally, under the Project and RPA, operational noise levels affecting sensitive off-site receiver locations have the potential to exceed the nighttime exterior noise level standards established by General Plan Policy 7.1. Such impacts would be reduced to less-than-significant levels with implementation of the mitigation measures identified in EIR Subsection 4.10. However, due to the reduction in areas proposed for commercial, such impacts would be reduced under the RPA as compared to the proposed Project.

Moreover, the Project would contribute operational noise level increases over the existing ambient noise levels which ranging from 0.1 to 0.8 dBA $L_{50}$ during the daytime hours and nighttime hours, which would satisfy the significance criteria discussed in subsection 4.10.4. Impacts under the Project would be less than significant. As the RPA proposes fewer commercial uses, the RPA would reduce the Project's less-than-significant impacts due to operational-related cumulative noise contributions.

Construction characteristics associated with the RPA would be similar to the proposed Project. As demonstrated in Subsection 4.10, the Project would not create vibration levels exceeding 0.01 in/sec with implementation of the mitigation identified in EIR Subsection 4.10. The RPA would similarly be required to incorporate mitigation to reduce construction-related vibration impacts to less-than-significant levels.

However, because the RPA proposes fewer buildings than the Project, impacts associated with groundborne vibration would be reduced under the RPA.

Traffic associated with the Project and the RPA would not cause or contribute to a significant noise impact affecting nearby sensitive receptors under any scenario evaluated in the Project's NIA and TIA. However, the operational noise levels associated with the proposed Project and the RPA would exceed the nighttime exterior noise level standards at nearby sensitive receptors, which represents a significant impact. Implementation of the mitigation measures identified in Subsection 4.10 would reduce such impacts to less-than-significant levels. However, because the RPA proposes fewer commercial uses, impacts under the RPA would be reduced in comparison to the proposed Project.

Construction noise levels associated with the Project and RPA, when the highest reference noise level is operating at a single point nearest the sensitive receiver location, would exceed the City of Lake Elsinore stationary construction equipment noise level standards for residential and semi-residential (school) uses. However, impacts would be reduced to less-than-significant levels with implementation of the mitigation measures identified in EIR Subsection 4.10. Nonetheless, due to the decrease in development intensity associated with the RPA, the RPA would result in reduced construction-related impacts as compared to the proposed Project.

The closest airport is Skylark Field which is located approximately 5.7 miles southeast of the Project site. The Project site is not located within the AIA of the closest airport, Skylark Airport, and is not subject to substantial noise levels associated with airport operations. Further, the Project site is not located within an airport land use plan or within 2 miles of a public airport. The Project site would not be exposed to aircraft-related noise exceeding 55 dBA CNEL, which is considered "clearly acceptable" by the Riverside County ALUCP for residential and commercial development. Accordingly, neither the Project nor the RPA would result in the exposure of people residing or working at the Project site to excessive airport- or aircraft-related noise, and no impact would occur under either alternative.

### *K. Paleontological Resources*

The Project site has a "Low Potential" to yield nonrenewable paleontological resources. There were no surface-exposed fossils or fossiliferous sedimentary units found during the field survey conducted by BFSA. In addition, the metamorphic and late Quaternary young alluvial fan sediments across the entire Project site indicates a low likelihood that any fossiliferous deposit would be present within the Project area and its surrounding areas. Thus, neither the Project nor the RPA would impact any known paleontological resource or unique geological feature. Impacts would be less than significant and would be similar under either alternative.

### *L. Population and Housing*

Implementation of the Project or the RPA would exceed local and regional projections. However, impacts associated with the proposed increases in population on-site have been evaluated herein, and mitigation measures have been imposed where necessary to reduce impacts to the maximum feasible extent. Therefore, impacts due to direct and indirect population growth would be less than significant under both the Project and

the RPA would be less than significant, although impacts under the RPA would be reduced because the Project proposes fewer residential dwelling units, and thus, a reduction in population as compared to the Project.

Neither the Project nor the RPA would result in the displacement of housing that could result in the construction of replacement housing; rather, the development of residential units would further augment the housing supply in the region. Thus, no impact associated with inducing housing demand would occur under the Project or RPA and impacts would be similar.

The Project site is undeveloped; thus, the Project would not displace substantial numbers of people and would not result in the need for construction of replacement housing elsewhere. Both the Project and the RPA would involve the development of the site with new residential units, resulting in an improvement to the housing supply in the region. Therefore, no impact associated with population displacement would occur under the Project or RPA and impacts would be similar.

### *M. Public Services*

With payment of mandatory DIF fees, potential direct and cumulatively-considerable impacts to the RCFD under the Project and RPA would be reduced to less-than-significant levels, and neither the Project nor the RPA would result in or require the construction of new fire protection facilities that could result in a significant impact to the environment. However, due to the reduction in development intensity under the RPA, impacts under the RPA would be reduced in comparison to the proposed Project.

With payment of mandatory DIF fees, potential direct and cumulatively-considerable impacts to the RCSD under the Project and RPA would be reduced to less-than-significant levels, and neither the Project nor the RPA would result in or require the construction of new police protection facilities that could result in a significant impact to the environment. However, due to the reduction in development intensity under the RPA, impacts under the RPA would be reduced in comparison to the proposed Project.

The Project and RPA both would generate a new student population that would not be accommodated within LEUSD's existing capacity. Although the LEUSD would need to construct new school facilities to meet the growing demand within this part of Lake Elsinore, there are no current publicly-available plans detailing where such facilities would be built. Although the Project and RPA would contribute to the need for new or expanded school facilities, it is not possible to identify environmental impacts that may be associated with the construction of new or expanded school facilities until a specific proposal and design for the facility is prepared by the LEUSD, and an analysis of potential physical environmental impacts resulting from the construction and operation of new or expanded school facilities would be speculative in nature (see CEQA Guidelines § 15145). Environmental effects of such school facilities and any associated mitigation would be identified through a future CEQA process required in association with any future proposals for new or expanded school facilities. Any mitigation measures required for new or expanded school facilities could be funded, in part, from property taxes and/or through payment of school impact fees. Furthermore, the payment of mandatory school impact fees would ensure that neither the Project nor the RPA would result in significant direct or cumulatively-considerable impacts to the ability of the LEUSD to provide for school services. The Project and RPA would not require the construction of new school facilities that could result in a significant impact to

the environment. However, due to the reduction in dwelling units associated with the RPA, the RPA would result in reduced impacts to schools as compared to the proposed Project.

With construction of public parkland on-site as required by the City of Lake Elsinore's Park and Recreation Master Plan, t direct and cumulatively-considerable park impacts to the City of Lake Elsinore would be reduced to less-than-significant levels under the proposed Project and RPA. Additionally, neither the RPA nor the proposed Project would result in or require the construction of new parkland that could result in a significant impact to the environment. Notwithstanding, impacts to parks would be reduced under the RPA because the RPA proposes fewer dwelling units than the proposed Project but the same amount of on-site parkland.

Although the Project and RPA both would contribute to a need for new or expanded library facilities, it is not possible to identify environmental impacts that may be associated with such new or expanded library facilities until a specific proposal and design for such facilities are prepared by the City of Lake Elsinore. Accordingly, impacts due to the construction of new or expanded library facilities are too speculative for evaluation in this EIR (CEQA Guidelines § 15145). Environmental effects of such library facilities and associated mitigation would be identified through a future CEQA process required in association with any future proposals for new or expanded library facilities. However, the Project and the RPA would be required to contribute DIF fees, which would be used in part to provide for library space and/or new book volumes. Accordingly, with payment of DIF fees, impacts to library services and facilities associated with the Project and the RPA are evaluated as less than significant on both a direct and cumulatively-considerable basis. However, because the RPA proposes fewer dwelling units than the proposed Project, impacts to libraries under the RPA would be reduced.

### *N. Recreation*

Both the Project and the RPA would provide a total of 8.3 acres of public parkland on-site, which would exceed the amount of parkland required by the City of Lake Elsinore Parks and Recreation Plan. Given the excess amount of parkland planned within the area, it is unlikely that future residents of the Project or the RPA would utilize parkland resources outside of the Project site boundaries to the point that physical deterioration of such facilities would occur or would be accelerated. Moreover, it is likely that any incremental increase in the use of existing recreational uses as a result of the Project or the RPA would be off-set by existing City residents utilizing proposed recreational facilities on-site. Thus, impacts to existing parks and recreation facilities in the region would be less than significant under both the Project and the RPA. However, because the RPA proposes the same amount of parkland on site as the Project but proposes fewer dwelling units, impacts to existing recreational facilities would be reduced under the RPA as compared to the proposed Project.

A 6.5-acre linear park, a 1.8-acre neighborhood park, trails, and a Class II bicycle lane per the City's General Plan are proposed on the Project site as part of both the RPA and the proposed Project. Effects associated with the physical construction of these facilities are addressed under the relevant issue areas identified herein. As concluded throughout this document, direct and cumulative impacts associated with construction of the on-site park facilities would be less than significant or would be reduced to the maximum feasible extent with the implementation of mitigation measures identified herein. Thus, impacts under both the Project and RPA would be similar because the RPA and Project propose the same areas for park and recreation resources on site.

## O. *Transportation and Traffic*

Both the Project and the RPA would result in direct and/or cumulatively-considerable impacts to study area transportation facilities. However, impacts under the RPA would be significantly reduced under the RPA as compared to the proposed Project due to the reduction in the number of dwelling units and commercial areas. Notwithstanding, although impacts to transportation facilities would be reduced under the RPA, significant and unavoidable impacts to study area facilities still would occur. Such impacts, while less than those associated with the Project, would result from one or more of the following factors: 1) improvements required to achieve an acceptable Level of Service (LOS) are funded by a local or regional funding program (i.e., DIF or TUMF), but it cannot be assured that the improvements would be in place prior to the facilities experiencing a deficient LOS; 2) although fair-share monetary contributions have been identified for the Project's cumulatively-considerable impacts, a funding program does not currently exist for the facility and it cannot be assured that required improvements would be in place prior to the facility experiencing a deficient LOS; and/or 3) the affected facility is under the jurisdiction of another agency (e.g., Caltrans), and no funding programs exist beyond regional programs (e.g., TUMF) to implement improvements needed to achieve an acceptable LOS.

Likewise, both the Project and the RPA would result in significant and unavoidable impacts to CMP facilities, impacts under the RPA would be significantly reduced due to the reduction in the number of dwelling units and commercial area as compared to the Project.

There are no components of the proposed Project or the RPA that would result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks. Accordingly, impacts would be less than significant under both alternatives, and impacts would be similar.

Neither the proposed Project nor the RPA would create or substantially increase safety hazards due to a design feature or incompatible use, and impacts would be less than significant and similar under both alternatives.

Due to temporary lane closures that may occur during the construction phase for both the Project and the RPA, such construction activities may conflict with emergency access routes and access to nearby uses during frontage improvements to Nichols Road and the proposed connection to El Toro Road via B Street. Construction traffic would be required to comply with a temporary traffic control plan that meets the applicable requirements of the California Manual on Uniform Traffic Control Devices, as required by the mitigation specified in EIR Subsection 4.15. Because improvements under the Project and RPA would be similar, temporary construction-related impacts would be similar under both alternative.

Neither the proposed Project nor the RPA would conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities), and impacts would be less than significant and similar under both alternatives.

## P. *Tribal Cultural Resources*

Areas proposed for disturbance under the RPA would be identical to the proposed Project. Although neither the Project nor the RPA would impact any known TCRs, both the Project and the RPA have the potential to

impact TCRs that may be buried beneath the site's surface and that could be impacted during grading or ground-disturbing activities. As with the Project, the RPA would be subject to Mitigation Measures MM 4.8-1 through MM 4.8-4, which would ensure that grading and other ground-disturbing activities during construction are monitored by a qualified archaeologist as well as tribal monitors. The mitigation further requires the proper treatment of any resources that may be uncovered, and the avoidance of disturbance in areas where potential resources are uncovered. With implementation of the required mitigation, impacts would be reduced to less-than-significant levels under both the RPA and proposed Project, and the level of impact would be the same.

### Q. *Utilities and Service Systems*

Neither the Project nor the RPA would exceed wastewater treatment requirements of the Santa Ana RWQCB. The EVMWD would provide wastewater treatment and collection services to the site, and the EVMWD is required to operate all of its treatment facilities in accordance with applicable waste treatment and discharge standards and requirements set forth by the RWQCB. Thus, a less-than-significant impact would occur under both the RPA and proposed Project, and impacts would be similar under both alternatives.

Wastewater treatment services would be provided by the EVMWD, which has existing and projected capacity to serve existing and planned development within its service area. Thus, neither the Project nor the RPA would result in the construction of new wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects. Additionally, neither the Project nor the RPA would result in a determination by the EVMWD that it has inadequate capacity to serve the Project's projected demand in addition to the provider's existing commitment. Therefore, impacts would be less than significant, although impacts under the RPA would be reduced due to the reduction in the number of dwelling units and commercial area as compared to the proposed Project.

The UWMP bases its growth assumptions, in part, based on the land use designations of General Plans within the EVMWD's service area, and both the proposed Project and the RPA would generate substantially less demand for potable water than development of the site with commercial uses, as assumed in the UWMP. Because the EVMWD projects that it will have sufficient water supplies even during single and multiple dry years to meet the projected demand within its district through year 2040, and because the Project and RPA would result in less demand for potable water than is accounted for by the UWMP, it can be concluded that the EVMWD would have sufficient water supplies to serve the Project and/or the RPA and other cumulative developments based on existing entitlements and resources. Additionally, neither the Project nor the RPA would require or result in the construction of new water treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects. Therefore, impacts due to water demand would be less than significant under both the Project and the RPA, although impacts would be reduced under the RPA as compared to the Project due to the reduction in the number of dwelling units and commercial area and associated reduction in water demand.

During both construction and operation of the Project or the RPA, the amount of solid waste generated b would represent a nominal increase in the existing available disposal capacity of the Perris TS/MRF, the El Sobrante Landfill, the Badlands Landfill, and the Lamb Canyon Landfill. Thus, the Project and the RPA would be served by a landfill with insufficient permitted capacity to accommodate the project's solid waste disposal

needs and impacts would be less than significant. However, due to the reduction in the number of dwelling units and commercial area, the RPA would result in reduced impacts as compared to the proposed Project.

Existing landfills that serve the Project site are required to comply with federal, state, and local statues and regulations related to solid waste. Compliance with federal, state, and local statutes and regulations would reduce the amount of solid waste generated by the Project and the RPA and diverted to landfills, which in turn would aid in the extension of the life of affected disposal sites. The Project and RPA would be required to comply with all applicable solid waste statutes and regulations; as such, impacts would be less than significant under either alternative, although impacts under the RPA would be reduced due to the reduction in the number of dwelling units and commercial area an attendant reduced solid waste generation.

Impacts associated with the construction of utility connections to provide electricity, natural gas, and telecommunication facilities service to the site are inherent to the construction phase, and have been evaluated herein. Where significant construction-related impacts are identified, feasible mitigation measures are identified to reduce impacts to the maximum feasible extent. There are no components of the proposed utility connections that would result in significant environmental effects not already addressed herein. Accordingly, impacts under the RPA and proposed Project would be less than significant and would be similar.

### *R. Conclusion*

As compared to the proposed Project, the RPA would not result in increased impacts to any of the issue areas analyzed above, and would result in similar or decreased impacts to all of the issue areas analyzed above. Specifically, as compared to the proposed Project, the RPA would result in reduced impacts associated with air quality, greenhouse gas emissions, hazards/hazardous materials, hydrology/water quality (groundwater supplies), noise, population/housing, public services, recreation, transportation/traffic, and utilities/service systems. Impacts under the issues of aesthetics, biological resources, geology/soils, historic/archaeological resources, hydrology/water quality (for all but groundwater supplies), land use/planning, paleontological resources, and tribal cultural resources would be similar under the Project and the RPA.

The RPA generally would meet the Project's objectives, but less effectively than the proposed Project due to the reduction in the number of dwelling units and areas proposed for commercial land uses. The RPA would be less effective in efficiently develop an underutilized property with a complementary mix of land uses, including residential, commercial, recreational, and open space land uses. The RPA would, similar to the Project, establish a master-planned community in a manner that is sensitive to the environment as well as visually and functionally compatible with surrounding existing and proposed land uses. Both the Project and the RPA would incorporate a design that takes topographic, geologic, hydrologic, and environmental opportunities and constraints into consideration to minimize alterations to Stovepipe Creek, where practical. However, the RPA would be less effective than the proposed Project in increasing the available housing supply within the region by providing detached single-family homes in traditional subdivision layouts that will be marketable within the evolving economic profile of the City of Lake Elsinore and surrounding communities. Additionally, as it is not known whether the commercial site could accommodate a hotel under the RPA, the RPA also would be less effective than the proposed Project in providing commercial and hotel uses within proximity to regional transportation facilities that will provide for employment opportunity and that can attract tenants at competitive lease rates to help ensure that the uses are occupied and positively contribute to the local

economy. Both the Project and the RPA would provide a system of public and community facilities, including recreational facilities and trails, in an efficient and timely manner and meet the needs of Project residents and residents of surrounding communities. Both the Project and the RPA would require project design elements such as architecture, landscaping, color, paving, walls, fencing, signage, entry treatments, and other similar design features that would ensure the community is developed in a manner that is aesthetically pleasing. Further, both he RPA and proposed Project would achieve the Project's objective to establish development phasing that results in logical coordinated growth. Additionally, both the Project and RPA would develop the site with complementary mixed uses in a manner that preserves, to the extent feasible, natural drainages, although the Project would more effectively provide for a complementary mix of land uses as compared to the RPA.

## Table 6-1 Alternatives to the Proposed Project – Comparison of Environmental Impacts

| Environmental Topic | Proposed Project Significance of Impacts After Mitigation | Level of Impact Compared to the Proposed Project | | |
|---|---|---|---|---|
| | | No Project / No Development Alternative | No Project / General Plan Land Use Alternative | Reduced Project Alternative |
| **Aesthetics** | Less than Significant | Reduced | Increased | Similar |
| **Air Quality** | Significant and Unavoidable Direct and Cumulatively-Considerable Impacts | Reduced | Increased | Reduced |
| **Biological Resources** | Significant and Unavoidable Direct Impact | Reduced | Similar | Similar |
| **Geology and Soils** | Less than Significant | Reduced | Similar | Similar |
| **Greenhouse Gas Emissions** | Less than Significant | Reduced | Increased | Reduced |
| **Hazards/Hazardous Materials** | Less than Significant | Reduced | Similar | Reduced |
| **Historic and Archeological Resources** | Less than Significant | Reduced | Similar | Similar |
| **Hydrology and Water Quality** | Less than Significant | Most Issues: Reduced<br>Erosion/Siltation: Increased | Increased | Reduced |
| **Land Use and Planning** | Significant and Unavoidable Direct Impact | Reduced | Similar | Reduced |
| **Noise** | Less than Significant | Reduced | Near-Term: Similar<br>Long-Term: Increased | Reduced |
| **Paleontological Resources** | Less than Significant | Reduced | Similar | Similar |
| **Population and Housing** | Less than Significant | Similar | Similar | Reduced |
| **Public Services** | Less than Significant | Reduced | Police/Fire: Increased<br>Schools/Parks/Libraries: Decreased | Reduced |
| **Recreation** | Less than Significant | Reduced | Reduced | Reduced |
| **Transportation and Traffic** | Significant and Unavoidable Direct and Cumulatively-Considerable Impacts | Reduced | Increased | Reduced |
| **Tribal Cultural Resources** | Less than Significant | Reduced | Similar | Similar |
| **Utilities and Service Systems** | Less-than-Significant | Reduced | Increased | Reduced |
| **Objective A:** To efficiently develop an underutilized property with a complementary mix of land uses, including residential, commercial, recreational, and open space land uses. | | No | No | Yes, but less effectively |
| **Objective B:** To establish a master-planned community in a manner that is sensitive to the environment as well as visually and functionally compatible with surrounding existing and proposed land uses. | | No | Yes | Yes |
| **Objective C:** To develop a mixed-use community with a design that takes topographic, geologic, hydrologic, and environmental opportunities and constraints into consideration to minimize alterations to Stovepipe Creek, where practical. | | No | No | Yes |
| **Objective D:** To increase the available housing supply within the region by providing detached single-family homes in traditional subdivision layouts that will be marketable within the evolving economic profile of the City of Lake Elsinore and surrounding communities. | | No | No | Yes, but less effectively |
| **Objective E:** To construct commercial and hotel uses within proximity to regional transportation facilities that will provide for employment opportunity and that can attract tenants | | No | Yes | Yes, but less effectively |

| Environmental Topic | Proposed Project Significance of Impacts After Mitigation | Level of Impact Compared to the Proposed Project | | |
|---|---|---|---|---|
| | | No Project / No Development Alternative | No Project / General Plan Land Use Alternative | Reduced Project Alternative |
| at competitive lease rates to help ensure that the uses are occupied and positively contribute to the local economy. | | | | |
| **Objective F:** To provide a system of public and community facilities, including recreational facilities and trails, in an efficient and timely manner and meet the needs of Project residents and residents of surrounding communities. | | No | No | Yes |
| **Objective G:** To require project design elements such as architecture, landscaping, color, paving, walls, fencing, signage, entry treatments, and other similar design features that would ensure the community is developed in a manner that is aesthetically pleasing. | | No | Yes | Yes |
| **Objective H:** To establish development phasing that results in logical coordinated growth. | | No | Yes | Yes |
| **Objective I:** To develop the site with complementary mixed uses in a manner that preserves, to the extent feasible, natural drainages. | | No | Yes | Yes, but less effectively |

# 7.0 REFERENCES

## 7.1 PERSONS CONTRIBUTING TO EIR PREPARATION

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Degree: B.S. Environmental Science

## 7.2 DOCUMENTS APPENDED TO THIS EIR

The following reports, studies, and supporting documentation were used in preparing the Nichols Ranch EIR and are bound separately as Technical Appendices. A copy of the Technical Appendices is available for review at the City of Lake Elsinore Planning Division 120 South Main Street, Lake Elsinore, CA 92530.

Appendix A: Initial Study for Nichols Ranch EIR, Notice of Preparation (NOP), and Written Comments on the NOP.

Appendix B: Urban Crossroads, Inc., 2018a. *Nichols Ranch Air Quality Impact Analysis*. August 29, 2018.

Appendix C: VCS Environmental, Inc. 2018. *Biological Technical Report and MSHCP Consistency Analysis for the Nichols Ranch Project*. September 2018.

Appendix D: Terracon Consultants, Inc. 2018. *Geotechnical Investigation and Geologic Evaluation Report*. February 2, 2018.

Appendix E: Urban Crossroads, Inc., 2018b. *Nichols Ranch Greenhouse Gas Analysis*. August 29, 2018.

Appendix F: Terracon Consultants, Inc. 2017. *Phase I Environmental Site Assessment Tentative Tract No. 37305 South of Nichols Road and East of Interstate 15 APNs 389-200-037, 389-210-008, and 389-210-032 Lake Elsinore, Riverside County, California 92532 Terracon Project No. 60177386*. December 27, 2017.

Appendix G: FIREWISE 2000, Inc. 2018. *Fire Protection Plan Tract 37305 Nichols Ranch Specific Plan City of Lake Elsinore County of Riverside, California*. January 25, 2019.

Appendix H: Brian F. Smith and Associates, Inc. 2018a. *A Phase I and II Cultural Resources Assessment for the Nichols Ranch Specific Plan Project City of Lake Elsinore, Riverside County, California*. July 17, 2017 [revised: ~~April 27, 2018~~May 7, 2019].

Appendix I1: K&A Engineering, Inc. 2018a. *Preliminary Drainage Report for Tract 37305 Nichols South Specific Plan City of Lake Elsinore*. July 2018.

Appendix I2: K&A Engineering, Inc. 2018b. *Preliminary Specific Water Quality Management Plan, Nichols Ranch Specific Plan*. November 2018.

Appendix J: Urban Crossroads, Inc., 2019. *Nichols Ranch Noise Impact Analysis*. January 2, 2019.

Appendix K: Brian F. Smith and Associates, Inc. 2018b. *Paleontological Resource and Monitoring Assessment, Nichols Ranch Specific Plan Project, City of Lake Elsinore, Riverside County California*. June 21, 2017 [revised: April 26, 2018].

Appendix L: Urban Crossroads, Inc., 2018d. *Nichols Ranch Traffic Impact Analysis City of Lake Elsinore*. December 18, 2018.

Appendix M: Written Correspondence. (Refer to Section 7.5 for a full list of Project correspondence).

Appendix N1: Dexter Wilson Engineering, Inc. *Water System Analysis for Tract No. 37305 in Lake Elsinore*. July 2018.

Appendix N2: Dexter Wilson Engineering, Inc. *Preliminary Sewer System Evaluation for Tract No. 37305 in Lake Elsinore*. July 2018.

## 7.3 DOCUMENTS INCORPORATED BY REFERENCE

The following reports, studies, and supporting documentation were used in the preparation of this EIR and are incorporated by reference within this EIR. A copy of the following reports, studies, and supporting documentation is a matter of public record and is generally available to the public at the location listed.

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## 7.5 Persons Consulted/Written or Verbal Communication

The following written communications were used in preparing the Nichols Ranch Specific Plan EIR. The resources cited below are available for review at the City of Lake Elsinore Planning Division 120 South Main Street, Lake Elsinore, CA 92530, and are included as *Technical Appendix M* to this EIR.

Anne, Daniel. Riverside County Sheriff Department (RCSD). No Subject. Emailed to Emilie Colwell, T&B Planning, Inc. n.d. Received August 13, 2018.

Arnold, Jeremy. Riverside County Public Library System (RCPLS). "RE: Riverside County-Lake Elsinore Library Service/Facilities Availability Information-Nichols Ranch Specific Plan." Emailed to Emilie Colwell, T&B Planning, Inc. July 20, 2018.

Bowers, Gregory. Lake Elsinore Unified School District (LEUSD). "RE: Nichols Ranch Specific Plan Project (Tentative Tract No. 37305)." Mailed to Emilie Colwell, T&B Planning, Inc. July 19, 2018.

Galang, Dexter. Riverside County Fire Department (RCFD) (Cal Fire – Riverside Unit). "RE: Nichols Ranch Specific Plan Request for Information Regarding Fire Services Availability (APN 389200038)." Mailed to Emilie Colwell, T&B Planning, Inc. July 16, 2018.

Merlan, Jose. Riverside County Department of Waste Resources (RCDWR). "RE: Response to the Request for Information (RFI) for the proposed Nichols Ranch Specific Plan (Project) Draft Environmental Impact Report (DEIR) in the City of Lake Elsinore." Mailed to Emilie Colwell, T&B Planning, Inc. June 13, 2018.