D. It has yielded, or is likely to yield, information important in prehistory or history (36 Code of Federal Regulations [CFR] 60.4).

Some types of cultural resources are not typically eligible for the NRHP. These resources consist of cemeteries, birthplaces, graves of historic figures, properties owned by religious institutions or used for religious purposes, structures that have been moved from their original locations, reconstructed historic buildings, properties primarily commemorative in nature, and properties that have achieved significance within the past 50 years. These property types may be eligible for the NRHP, however, if they are integral parts of eligible districts of resources or meet the criteria considerations described in 36 CFR 60.4.

In addition to possessing significance, a property must also have integrity to be eligible for listing in the NRHP. The principle of integrity has seven aspects: location, design, setting, materials, workmanship, feeling, and association (36 CFR 60.4). To retain historic integrity, a property will always possess several, and usually most, of the qualities of integrity (U.S. Department of the Interior 1995:44).

Secretary of the Interior's Standards for Rehabilitation

The United States Secretary of the Interior has developed "Standards for the Treatment of Historic Properties." According to the National Park Service, these standards provide "common sense historic preservation principles" and are presented as "a series of concepts about maintaining, repairing, and replacing historic materials, as well as designing new additions or making alterations" (National Park Service n.d.1). While there are four distinct approaches to the treatment of historic properties (preservation, rehabilitation, restoration, and reconstruction), rehabilitation is the most commonly applied approach. The Standards for Rehabilitation (SOI Standards) are as follows (National Park Service n.d.2).

1. A property will be used as it was historically or be given a new use that requires minimal change to its distinctive materials, features, spaces, and spatial relationships.
2. The historic character of a property will be retained and preserved. The removal of distinctive materials or alteration of features, spaces, and spatial relationships that characterize a property will be avoided.
3. Each property will be recognized as a physical record of its time, place, and use. Changes that create a false sense of historical development, such as adding conjectural features or elements from other historic properties, will not be undertaken.
4. Changes to a property that have acquired historic significance in their own right will be retained and preserved.
5. Distinctive materials, features, finishes, and construction techniques or examples of craftsmanship that characterize a property will be preserved.
6. Deteriorated historic features will be repaired rather than replaced. Where the severity of deterioration requires replacement of a distinctive feature, the new feature will match the old in design, color, texture, and, where possible, materials. Replacement of missing features will be substantiated by documentary and physical evidence.
7. Chemical or physical treatments, if appropriate, will be undertaken using the gentlest means possible. Treatments that cause damage to historic materials will not be used.

8. Archaeological resources will be protected and preserved in place. If such resources must be disturbed, mitigation measures will be undertaken.
9. New additions, exterior alterations, or related new construction will not destroy historic materials, features, and spatial relationships that characterize the property. The new work will be differentiated from the old and will be compatible with the historic materials, features, size, scale and proportion, and massing to protect the integrity of the property and its environment.
10. New additions and adjacent or related new construction will be undertaken in such a manner that, if removed in the future, the essential form and integrity of the historic property and its environment would be unimpaired.

Native American Graves Protection and Repatriation Act of 1990

The Native American Graves Protection and Repatriation Act (NAGPRA) provides a process for federal agencies to determine custody of Native American cultural items to lineal descendants and culturally affiliated Indian tribes. NAGPRA defines the ownership of Native American human remains and funerary materials excavated on lands owned or controlled by the federal government. NAGPRA establishes a hierarchy of ownership rights for Native American remains identified on these lands (25 U.S. Code [USC] Section 3002(a)):

- Where the lineal descendants can be found, the lineal descendants own the remains.
- Where the lineal descendants cannot be found, the remains belong to the Indian tribe or Native Hawaiian organization on whose land the remains were found.
- If the remains are discovered on other lands owned or controlled by the federal government and the lineal descendants cannot be determined, the remains belong to the Indian tribe or Native Hawaiian organization that is culturally affiliated with the remains, or the tribe that aboriginally occupied the land where the remains were discovered.

Under NAGPRA, intentional excavation of Native American human remains on lands owned or controlled by the federal government may occur (25 USC 3002(c)) only under the following circumstances.

- With a permit issued under the Archaeological Resources Protection Act (16 USC 470cc)
- After documented consultation with the relevant tribal or Native American groups
- Ownership and disposition follow NAGPRA for all human remains and associated artifacts (25 1 USC 3001 and 43 CFR 10.6).

NAGPRA also provides guidance on inadvertent discoveries of Native American or Hawaiian human remains on lands owned or controlled by the federal government. When an inadvertent discovery on these lands occurs in association with construction, construction must cease. The party that discovers the remains must notify the relevant federal agency, and the remains must be transferred according to the ownership provisions above (25 USC 3002(d)).

American Indian Religious Freedom Act (42 USC Section 1996)

The American Indian Religious Freedom Act protects and preserves the traditional religious rights and cultural practices of American Indians, Eskimos, Aleuts, and Native Hawaiians. The act requires policies of all governmental agencies to respect the free exercise of native religion and to

accommodate access to and use of religious sites to the extent that the use is practicable and is not inconsistent with an agency's essential functions. If a place of religious importance to American Indians may be affected by a project, the American Indian Religious Freedom Act promotes consultation with Indian religious practitioners, which may be coordinated with Section 106 consultation.

State

California Environmental Quality Act and Public Resources Code Section 5024.1 (California Register of Historical Resources)

CEQA requires public agencies to evaluate the implications of their project(s) on the environment and includes significant historic resources as part of the environment. Public agencies must treat any cultural resource as significant unless the preponderance of evidence demonstrates that it is not historically or culturally significant (California Code of Regulations [CCR] Title 14 §15064.5). A historic resource is considered significant if it meets the definition of historical resource or unique archaeological resource, as defined below.

Historical Resources

The term *historical resource* includes, but is not limited to, any object, building, structure, site, area, place, record, or manuscript that is historically or archaeologically significant, or is significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California (California Public Resources Code [PRC] §5020.1(j)). Historical resources may be designated as such through three different processes:

- Official designation or recognition by a local government pursuant to local ordinance or resolution (PRC §5020.1(k))
- A local survey conducted pursuant to PRC §5024.1(g)
- Listing in or eligibility for listing in the NRHP (PRC §5024.1(d)(1))

According to PRC §21084.1, properties of local significance that have been designated under a local preservation ordinance or that have been deemed significant in a local historical resources inventory, pursuant to PRC §5024.1(g), may be eligible for listing in the California Register of Historical Resources (CRHR) and are presumed to be significant resources for the purposes of CEQA unless a preponderance of evidence indicates otherwise.

The process for identifying historical resources is typically accomplished by applying the criteria for listing in the CRHR (CCR Title 14 §4852), which states that a historical resource must be significant at the local, state, or national level under one or more of the following four criteria.

1. It is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage.
2. It is associated with the lives of persons important in our past.
3. It 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.
4. It has yielded, or may be likely to yield, information important in prehistory or history.

To be considered a historical resource for the purpose of CEQA, the resource must also have integrity, which is the authenticity of a resource's physical identity evidenced by the survival of characteristics that existed during the resource's period of significance.

Resources, therefore, must retain enough of their historic character or appearance to be recognizable as historical resources and to convey the reasons for their significance. Integrity is evaluated with regard to the retention of location, design, setting, materials, workmanship, feeling, and association. It must also be judged with reference to the criteria under which a resource is eligible for listing in the CRHR (CCR Title 14 §4852(c)).

Unique Archaeological Resources

A unique archaeological resource is defined in Section 21083.2 of the PRC as an archaeological artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it meets any of the following criteria:

- Contains information needed to answer important scientific research questions and for which there is a demonstrable public interest
- 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

In most situations, resources that meet the definition of a unique archaeological resource also meet the definition of historical resource. As a result, it is current professional practice to evaluate cultural resources for significance based on their eligibility for listing in the CRHR. For the purposes of this CEQA cultural resources study, a resource is considered significant if it meets the CRHR eligibility (significance and integrity) criteria. Individual resource assessments of eligibility are provided in this section.

Even without a formal determination of significance and nomination for listing in the CRHR, the lead agency can determine that a resource is potentially eligible for such listing, to aid in determining whether a significant impact would occur. The fact that a resource is not listed in the CRHR, or has not been determined eligible for such listing, and is not included in a local register of historic resources, does not preclude an agency from determining that a resource may be a historical resource for the purposes of CEQA.

Government Code Section 65352.3 (Senate Bill 18)

Senate Bill (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 approvals and amendments of both general plans (defined in Government Code §65300 et seq.) and specific plans (defined in Government Code §65450 et seq.).

Prior to the approval or any amendment of a general plan or specific plan, a local government must notify the appropriate tribes (on the contact list maintained by the Native American Heritage Commission [NAHC]) of the opportunity to conduct consultations for the purpose of preserving, or mitigating impacts on, cultural places on land within the local government's jurisdiction that is

affected by the proposed plan adoption or amendment. Tribes have 90 days from the date on which they receive notification to request consultation, unless a shorter timeframe has been agreed to by the tribe (Government Code §65352.3).

Assembly Bill 52

On September 25, 2014, California Governor Jerry Brown signed into law Assembly Bill (AB) 52, which amended PRC Section 5097.94 and added Sections 21073, 21074, 21080.3.1, 21080.3.2, 21082.3, 21083.09, 21084.2, and 21084.3 to establish a new category of environmental resources that must be considered under CEQA: tribal cultural resources (TCRs). This amendment took effect on July 1, 2015. TCRs are defined as either (1) sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are included in the CRHR or a local register of historical resources, or that are determined to be eligible for inclusion in the CRHR; or (2) resources determined by the lead agency, in its discretion, to be significant based on the criteria for listing in the CRHR. For projects with applications filed on or after July 1, 2015, lead agencies are also required to consult with California Native American tribes that are traditionally and culturally affiliated with the geographic area of a proposed project, including tribes that may not be federally recognized, if the tribe requested to the lead agency, in writing, to be informed by the lead agency of proposed projects in that geographic area, and the tribe requests consultation prior to determining whether a negative declaration, mitigated negative declaration, or EIR is required for a project.

Section 6 of AB 52 adds Section 21080.3.2 to the PRC, which states that parties may propose mitigation measures "capable of avoiding or substantially lessening potential significant impacts to a tribal cultural resource or alternatives that would avoid significant impacts to a tribal cultural resource." Furthermore, if a California Native American tribe requests consultation regarding project alternatives, mitigation measures, or significant effects on TCRs, the consultation must include those topics (PRC Section 21080.3.2(a)). The environmental document and the mitigation monitoring and reporting program (where applicable) must include any mitigation measures that are adopted (PRC Section 21082.3(a)).

Assembly Bill 168

AB 168 became law on September 25, 2020. AB 168 amends Sections 65400, 65913.4, and 65941.1 of the Government Code and was written to address an "oversight" in SB 35 (Chapter 366 of the Statues of 2017) that did not consider potential destruction of TCRs that are either listed on registers or are potential TCRs. SB 35 provides for a streamlined ministerial approval process of multi-family housing. AB 168 requires projects applying for SB 35 approval to submit a notice of intent to submit an application, which includes a preliminary application. The local agency is then required to engage in scoping consultation with Native American tribes for projects seeking review under the ministerial approval process outlined in SB 35. Local agencies must engage in consultation with Native American tribes traditionally and culturally affiliated with the geographic area of the project, and contact the NAHC to assist in identifying the appropriate Native American tribe(s) for consultation. The consultation must proceed on a timeline whereby the local government formally notifies each tribe within 30 days of receiving the preliminary application, the tribe has 30 days to accept the invitation to engage in consultation, and the local government must initiate consultation within 30 days of the tribe's acceptance. CEQA does not apply to the consultation process (Government Code 65913.(b)(1)(E)).

If the parties in consultation agree that there is no potential impact on TCRs as a result of the project, then the proponent may submit an application for a ministerial approval per SB 35. If a potential impact on TCRs is identified through consultation, then a mutually accepted agreement must be made that identifies methods and conditions for treatment of TCRs. The agreement is a condition of approval for the project application under SB 35. Tribal consultation concludes upon the documentation of an agreement for how TCRs will be treated at the project site (if present) or if the parties in consultation, acting in good faith and after a reasonable effort, conclude that a mutual agreement cannot be reached. If consulting parties do not reach an agreement for treatment of TCRs, then the project proponent is not eligible for ministerial approval under AB 35.

To qualify for SB 35 ministerial approval the following conditions must be met:

- A tribe that has received notice of a project proponent's submission of a pre-application does not respond to the invitation for consultation within 30 days.
- A tribe accepts the invitation to conduct consultation, but does not engage the local agency after repeated attempts by the local agency.
- The tribe(s) and the local agency agree that there is no potential harm to TCRs that will result from the proposed project.
- Consultation identifies potential impacts on TCRs, and an agreement is documented that provides the methods for treatment of the potentially affected TCRs.

If, after consultation, it is determined that no TCRs would be affected by the project, then no further documentation is necessary. If an agreement between a tribe and the local agency is reached for treatment of potentially affected TCRs, then that agreement must be attached to the approved application for SB 35 ministerial exemption. If consultation results in denial of SB 35 ministerial approval for the project, the local agency must provide written documentation of the explanation of the SB 35 application's denial to the project proponent and the tribe(s) participating in consultation. If changes are made to the project after consultation has been closed, then the local agency must engage in additional, subsequent consultation.

A project will not be eligible for SB 35 streamlined ministerial process if:

- There is a TCR present that is on a national, state, tribal, or local historic register.
- There is a potential TCR that could be affected by the proposed project and the consulting parties cannot reach an agreement on the treatment of the TCR.
- Consulting parties do not agree as to whether a potential TCR will be affected by the project.

Public Resources Code Section 5097

PRC Section 5097 addresses archaeological, paleontological, and historic sites on state land as well as the cooperative efforts with NAHC that are to be undertaken as part of a project being evaluated under CEQA. PRC Section 5097 specifies the procedures to be followed in the event of the unexpected discovery of human remains on nonfederal public lands. PRC Section 5097.5 considers it a misdemeanor to 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. The disposition of Native American burials falls within the jurisdiction of NAHC, which prohibits willfully damaging any historic, archaeological, or vertebrate paleontological site or feature on public lands (PRC Section 5097.9). PRC Section 5097.98 stipulates that whenever NAHC receives notification of a discovery of Native American human remains from the county coroner, it must immediately notify those people it believes to be the most likely descendants of the deceased Native American. The descendants may inspect the site of discovery and make recommendations on the removal or reburial of the remains.

Health and Safety Code Section 7050.5

Health and Safety Code 7050.5 addresses the protection of human remains discovered in any location other than a dedicated cemetery and makes it a misdemeanor for any person who knowingly mutilates or disinters, wantonly disturbs, or willfully removes any human remains in or from any location other than a dedicated cemetery without authority of law, except as provided in PRC Section 5097.99. It further states that in the event of discovery or recognition of any human remains in any location other than a dedicated cemetery, there must be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains until the coroner of the county in which the human remains are discovered has determined that the remains are not subject to the provisions concerning investigation of the circumstances, manner, and cause of any death, and the recommendations concerning the treatment and disposition of the human remains have been made to the person responsible for the excavation, or to his or her authorized representative, in the manner provided in PRC Section 5097.98. If the coroner determines that the remains are not subject to his or her authority and recognizes as or has reason to believe the human remains are those of a Native American, he or she must contact NAHC by telephone within 24 hours.

California Government Code Sections 6254(r) and 6254.10

California Government Code Section 6254(r) and Section 6254.10 of the California Public Records Act were enacted to protect archaeological sites from unauthorized excavation, looting, or vandalism. Section 6254(r) explicitly authorizes public agencies to withhold information from the public relating to "Native American graves, cemeteries, and sacred places maintained by the Native American Heritage Commission." Section 6254.10 specifically exempts from disclosure requests for "records that relate to archaeological site information and reports, maintained by, or in the possession of the Department of Parks and Recreation, the State Historical Resources Commission, the State Lands Commission, the Native American Heritage Commission, another state agency, or a local agency, including the records that the agency obtains through a consultation process between a Native American tribe and a state or local agency."

California Native American Graves Protection and Repatriation Act of 2001

The California Native American Graves Protection and Repatriation Act conveys to American Indians, of demonstrated lineal descendance, human remains and funerary items that are held by state agencies and museums. Human remains require special handling and must be treated with dignity. Procedures for the handling of human remains are pursuant to §15064.5(e) of the State CEQA Guidelines, Section 5097.98 of the PRC, and Section 87.429 of the County's Grading Ordinance. In the event of the discovery of human remains and/or funerary items, the following procedures, as outlined by NAHC, must be followed (14 CCR 15000 et seq.):

1. There must be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent human remains until:
    a. The county coroner is contacted to determine that no investigation of the cause of death is required.
    b. If the coroner determines that the remains are Native American:
        i. The coroner must contact NAHC within 24 hours.
        ii. NAHC must identify the person or persons it believes to be the most likely descended from the deceased Native American.
        iii. The most likely descendant may make the recommendations to the landowner or the person responsible for the excavation work, for means of treating or disposing of, with appropriate dignity, the human remains and any associated grave goods as provided in PRC Section 5097.98.
2. Where the following conditions occur, the landowner or his authorized representative must rebury the Native American human remains and associated grave goods with appropriate dignity on the property in a location not subject to further disturbance.
    a. NAHC is unable to identify a most likely descendant or the most likely descendant failed to make a recommendation within 24 hours after being notified by the commission.
    b. The descendant identified fails to make a recommendation.
    c. The landowner or his authorized representative rejects the recommendation of the descendant, and the mediation by NAHC fails to provide measures acceptable to the landowner.

Local

Riverside General Plan 2025, Historic Preservation Element

The purpose of the Historic Preservation Element of the *Riverside General Plan 2025* (GP 2025) is to "provide guidance in developing and implementing activities that ensure that the identification, designation, and protection of cultural resources are part of the City's community planning, development, and permitting processes" (City of Riverside 2012). The Historic Preservation Element acknowledges that the California Office of Historic Preservation has recognized Riverside's historic preservation program with a designation as a Certified Local Government. The Historic Preservation Element provides historic context with themes important for identifying and evaluating cultural resources within the City. The GP 2025 Final EIR includes two cultural resource–related sensitivity maps that use rankings of unknown, low, medium, and high for archaeological sensitivity and prehistoric cultural resources sensitivity.

Table 3.3-1 presents an overview of GP 2025 and other local plans, policies, and programs related to cultural resources.

Table 3.3-1. Relevant Riverside General Plan and Specific Plan Policies

Plan	Policy
Riverside General Plan 2025	
Historic Preservation Element	Policy HP-1.2: The City shall assume its direct responsibility for historic preservation by protecting and maintaining its publicly owned cultural resources. Such resources may include, but are not limited to, buildings, monuments, landscapes, and right-of-way improvements, such as retaining walls, granite curbs, entry monuments, light standards, street trees, and the scoring, dimensions, and patterns of sidewalks, driveways, curbs and gutters. Policy HP-1.3: The City shall protect sites of archaeological and paleontological significance and ensure compliance with all applicable state and federal cultural resources protection and management laws in its planning and project review process. Policy HP-1.4: The City shall protect natural resources such as geological features, heritage trees, and landscapes in the planning and development review process and in park and open space planning. Policy HP-1.6: The City shall use historic preservation as a tool for "smart growth" and mixed-use development. Policy HP-1.7: The City shall ensure consistency between this Historic Preservation Element and all other General Plan elements, including subsequent updates of the General Plan. Policy HP-2.1: The City shall actively pursue a comprehensive program to document and preserve historic buildings, structures, districts, sites (including archaeological sites), objects, landscapes, and natural resources. Policy HP-2.2: The City shall continually update its identification and designation of cultural resources that are eligible for listing in local, state and national registers based upon the 50 year age guideline for potential historic designation eligibility. Policy HP-2.3: The City shall provide information to citizens, and the building community about what to do upon the discovery of archaeological resources and burial sites, as well as, the treatment, preservation, and repatriation of such resources. Policy HP-4.3: The City shall work with the appropriate tribe to identify and address, in a culturally appropriate manner, cultural resources and tribal sacred sites through the development review process. Policy HP-5.1: The City shall use its design and plot plan review processes to encourage new construction to be compatible in scale and character with cultural resources and historic districts. Policy HP-5.2: The City shall use its design and plot plan review processes to encourage the compatibility of street design, public improvements, and utility infrastructure with cultural resources and historic districts. Policy HP-7.1: The City shall apply code enforcement, zoning actions, and building safety/construction regulations as tools for helping to protect cultural resources. Policy HP-7.2: The City shall incorporate preservation as an integral part of its specific plans, general plan, and environmental processes.
Specific Plans	
Canyon Springs Business Park Specific Plan	There are no applicable policies relevant to the Project regarding cultural resources.

Plan	Policy
Downtown Specific Plan	Policy LU 1.1: Maintain the integrity of, and interrelationship between, each Downtown district as follows: • Raincross District: The pedestrian-oriented center of Downtown, with an emphasis on an intense mixture of residential, specialty commercial, tourist, restaurant, cultural, arts, and civic uses. Design philosophy emphasizes new and infill construction that is compatible with the historic structures that give Downtown its unique identity. • Justice Center District: A high intensity district primarily intended for civic, governmental, and judicial uses, interspersed with supporting offices and commercial businesses. Design philosophy is oriented toward large scale, contemporary architecture with interpretive ties to Riverside's heritage architecture. Policy UD-1-1: Through design review, ensure that new development enhances the character of the Downtown Districts by requiring design qualities and elements that contribute to an active pedestrian environment, where appropriate, and ensuring that architectural elements are compatible and in scale with the existing historic structures in the Downtown. Policy UD-1-3: Improve street design on key corridors in the Downtown and create a sense of arrival at key gateways, which reinforce the City's natural, cultural and historic characteristics. Policy HP-1-1: Promote the preservation of the historic housing stock and existing character of the distinct single family residential neighborhoods. Policy HP-1-2: Promote community appreciation for the history of Riverside. Policy HP-1-3: Provide incentives to encourage the restoration, and, if necessary, relocation of private historic structures to conserve the integrity of the buildings in the best condition possible. Policy HP-1-4: Through design review, encourage new development to be compatible with adjacent historical structures in scale, massing, building materials, and general architectural treatment. Policy HP-1-5: Work with interested groups and individuals to further tailor the historic design guidelines to each of the designated historic districts within the specific plan boundaries.
Hunter Business Park Specific Plan	There are no applicable policies relevant to the Project regarding cultural resources.
La Sierra University Specific Plan	Design Framework • Preservation of the University's historically significant buildings including those which form a curved edge around Founder's Green, a landscaped open space west of the Administration Center. No substantial exterior modification or relocation of any historically significant building shall be commenced except in accordance with the provisions of the historic assessment report. • New construction shall be compatible with the historic integrity of the existing campus. Implementation Policy Under standard City procedures, a Conditional Use Permit is required for development of educational facilities within the Public Facilities and Institutional land use designation of the General Plan. The Specific Plan policies, standards, and guidelines listed in this chapter, and Chapters 4.0 and 5.0 provide sufficient guidelines for overall development on the campus. As such, a Conditional Use Permit shall not be required for any uses listed as permitted in the La Sierra University Specific Plan (Chapter 4.0). At the point that detailed site planning

Plan	Policy
	information is available, a plot/site plan review by the Planning Commission of the entire campus, or logical phases thereof, shall be undertaken. Development approval of specific campus projects pursuant to the plot/site plan can then be achieved administratively, through the Minor Conditional Use Permit process. Projects impacting the historic integrity of the campus shall be subject to review by the City Cultural Heritage Board, as specified in the mitigation measures from the project Final EIR. Proposed Actions Regarding Existing On-Campus Buildings Dober, Lidsky, Craig and Associates, Inc., in their 1991 Campus Plan evaluated all existing campus buildings and recommended building actions which will affect their current and future uses. Some recommendations in the Campus Plan were modified based on input from a 1996 Historic Assessment Report. Figure 5-14 and Table 5-1 list these building categories within the Specific Plan area and provide guidance regarding buildings to continue in use or to be replaced. According to the Historic Assessment Report, a portion of La Sierra University campus (Figure 5-14) has been evaluated as eligible for designation as a local Historic District under the Riverside Cultural Resources Ordinance.
Magnolia Avenue Specific Plan	Policy 1.2: Maintain the existing mature heritage landscaping and infill landscaping as appropriate to return the Corridor to being a grand tree-lined parkway. (General Plan Policy LU-12.2) Policy 1.3: Enhance the setting for key historic sites along the Corridor, including landmark buildings and landscape, such as the Arlington Library and Parent Navel Orange Tree; cultural landmarks, such as the Heritage House; and historic districts, such as Wood Streets. (General Plan Policy LU-12.3) Policy 1.4: Enhance and celebrate Heritage House as a historic and cultural landmark. (General Plan Policy LU-78.4) Policy 1.5: Enhance and celebrate the Parent Navel Orange Tree as an historic and cultural landmark. (General Plan Policy LU-68.2) Policy 1.7: Preserve Magnolia Avenue's historic character. (General Plan Policy LU-36.2) Policy 2.1: Create a sense of arrival at key Downtown gateways, reinforcing the City's natural, cultural and historic characteristics. (General Plan Policy LU-48.3)
Riverside Marketplace Specific Plan	Development within the Riverside Marketplace will revitalize, complement and enhance the project area, incorporating key elements of its historic context and its present development potential. This Specific Plan represents a period of California history in which Riverside was a centerpiece. Many of the structures and elements which physically represent this period are present and in good repair. These historical components shall be the underlying foundation of the economic and aesthetic revitalization within the area. 2.4.1 Land Use Goals: • to ensure the range of land uses will respect and complement the historic components within the plan area. 2.4.2 Land Use Objectives: • create a sub-area to preserve and enhance the area's historic components. 2.4.5 Urban Design Goal: • to utilize the underlying historic urban character of the community, while allowing for the addition of complementary new structures and urban design elements. 2.4.6 Urban Design Objectives:

Plan	Policy
	• preserve and highlight the existing historic elements within the Specific Plan area. • Develop new structures with urban design features which will reinforce the area's historic character. 7.5.9 Historic Structures Environmental Setting As described in Section 2 of the Plan, there are a number of architecturally and/or historically significant structures within the Specific Plan Area. Environmental Impacts Redevelopment or use intensification may be perceived as a threat to the architectural heritage and integrity of an established areas of individual structures. Mitigation Measures • Development of a rating criteria in order to determine degree of architectural or historical merit of any structure or area. • Identify potential candidate structures or areas via an area-wide survey. • Determine the feasibility of preserving, relocating or reusing any potential candidate structure through structural integrity assessments or other types of tests. • Retention or adaptive reuse of all qualified packing houses and significant industrial structures. • Relocation of what was thought to be the John Brodhurst Home (the oldest remaining house in Riverside) and the Riverside Soda Works to a proposed Visitors Center adjacent to North Park. • Neighborhood Enhancement Program to rehabilitate the architecturally and historically significant residential structures north of Seventh Street and along Ninth Street.
University Avenue Specific Plan	Preservation of Existing Site Features Existing site conditions, such as mature trees, natural drainage courses and historic structures shall be incorporated into a project of any site. 8.4.1 Architectural Character/Building Design Preservation/Adaptive Reuse. This area includes a number of turn-of-the-century homes that should be adaptively reused for business purposes. The Cultural Heritage Board staff should do an inventory and add to preservation lists all structures meriting preservation. This area should also be studied for historic district status. A unified theme of historically appropriate uses would give this area a unique character that would help intensify the pedestrian use of this area. Specific design guidelines for this area will be developed when the survey work is completed. In the meantime, builders and staff should use Restoration Riverside and the White Park Historic District Design Guidelines as references.

Source: City of Riverside 1991, 2002, 2005, 2007, 2009, 2012, 2017a, 2017b.

Policy Consistency

The Project would be consistent with GP 2025 Historic Preservation Element policies relating to cultural resources as listed in Table 3.3-1, because it complies with state laws and the Cultural Resources Ordinance aimed at identifying and protecting cultural resources. In addition, the Project calls for the use of the SOI Standards to integrate sensitive design practices (City of Riverside 2012).

City of Riverside Municipal Code

The City of Riverside Municipal Code, Title 20, Cultural Resources Ordinance, provides guidelines for the application, enforcement, and public awareness of the City's historic preservation regulations, as enforced by the City's Planning Division. The purpose of this title is to promote the public health, safety, and general welfare by providing for the identification, protection, enhancement, perpetuation, and use of improvements, buildings, structures, signs, objects, features, sites, places, areas, districts, neighborhoods, streets, works of art, natural features, and significant permanent landscaping having special historical, archaeological, cultural, architectural, community, aesthetic, or artistic value in the City (Section 20.05.010).

The Cultural Resources Ordinance recognizes four types of designations: Landmark, Structure of Merit, Historic District, and Neighborhood Conservation Area. The City has conducted several historical resource surveys, designated individually significant historical resources and historic districts, and identified eligible cultural resources and historic districts.

Certificate of Appropriateness

Title 20 requires a Certificate of Appropriateness for the restoration, rehabilitation, alteration, development, construction, demolition, removal, or other change in appearance of any designated cultural resource, eligible cultural resource, or any element in a geographic Historic District (contributing and non-contributing), or a contributing feature or contributor to a Neighborhood Conservation Area.

Cultural resource means improvements, natural features, sites, cultural landscapes, or other objects that may reasonably be of scientific, aesthetic, educational, cultural, architectural, social, political, military, historical, or archaeological significance. This includes designated cultural resources, eligible cultural resources, and contributing features to Historic Districts and Neighborhood Conservation Areas. A "Point of Cultural Interest" as recognized under Title 20 is expressly not under this definition.

Eligible cultural resource means a cultural resource or Historic District that has been determined by the Historic Preservation Officer or Qualified Designee, Board, or City Council to meet the City's designation criteria pursuant to a survey prepared by a professional meeting the SOI Standards that either documents the resource, records the resource on the California Department of Parks and Recreation survey forms, or has been so designated by the California State Historic Preservation Officer.

Depending on the type of project, either the Cultural Heritage Board or Historic Preservation Officer (or Qualified Designee) reviews an application for a Certificate of Appropriateness. Per Section 20.25.050, *Principles and standards of site development and design review*, the reviewer must apply the following standards to the application review:

A. The application proposal is consistent or compatible with the architectural period and the character-defining elements of the historic building.

B. The application proposal is compatible with existing adjacent or nearby cultural resources and their character-defining elements.

C. The colors, textures, materials, fenestration, decorative features, details, height, scale, massing, and methods of construction proposed are consistent with the period and/or compatible with adjacent cultural resources.

D. The proposed change does not adversely affect the context considering the following factors: grading, site development, orientation of buildings, off-street parking, landscaping, signs, street furniture, public areas, or relationship of the project to its surroundings.

E. The proposed change does not destroy or adversely affect an important architectural, historical, cultural, or archaeological feature or features.

F. The project is consistent with the Citywide Residential Historic District Design Guidelines, approved guidelines for each Historic District, and/or any other applicable design guidelines.

G. The project is consistent with the principles of the SOI Standards.

Title 20 also provides a process to designate, modify the status of, or de-designate Landmarks, Structures, or Resources of Merit and Historic Districts, and to modify or de-designate Neighborhood Conservation Areas.

The definitions and designation criteria for Landmarks, Structures of Merit, and Historic Districts are provided below.

Landmark Definition and Designation Criteria

Landmark means any improvement or natural feature that is an exceptional example of a historical, archaeological, cultural, architectural, community, aesthetic, or artistic heritage of the City, retains a high degree of integrity, and meets one or more of the following criteria:

1. Exemplifies or reflects special elements of the City's cultural, social, economic, political, aesthetic, engineering, architectural, or natural history
2. Is identified with persons or events significant in local, state, or national history
3. Embodies distinctive characteristics of a style, type, period, or method of construction, or is a valuable example of the use of indigenous materials or craftsmanship
4. Represents the work of a notable builder, designer, or architect, or important creative individual
5. Embodies elements that possess high artistic values or represents a significant structural or architectural achievement or innovation
6. Reflects significant geographical patterns, including those associated with different eras of settlement and growth, particular transportation modes, or distinctive examples of park or community planning, or cultural landscape
7. Is one of the last remaining examples in the City, region, state, or nation possessing distinguishing characteristics of an architectural or historical type or specimen
8. Has yielded or may be likely to yield information important in history or prehistory

Structure of Merit Definition and Designation Criteria

Structure of Merit means any improvement or natural feature that contributes to the broader understanding of the historical, archaeological, cultural, architectural, community, aesthetic, or artistic heritage of the City, retains sufficient integrity, and:

1. Has a unique location or singular physical characteristics or is a view or vista representing an established and familiar visual feature of a neighborhood community or of the City
2. Is an example of a type of building that was once common but is now rare in its neighborhood, community, or area
3. Is connected with a business or use that was once common but is now rare
4. Could be eligible under landmark criteria no longer exhibiting a high level of integrity, but retains sufficient integrity to convey significance under one or more of the landmark criteria
5. Has yielded or may be likely to yield information important in history or prehistory
6. No longer exhibits the high degree of integrity sufficient for landmark designation but still retains sufficient integrity under one or more of the landmark criteria to convey cultural resource significance as a structure or resource of merit

Historic District Definition and Designation Criteria

Historic District means an area that contains:

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

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

3. Exemplifies or reflects special elements of the City's cultural, social, economic, political, aesthetic, engineering, architectural, or natural history
4. Is identified with persons or events significant in local, state, or national history
5. Embodies distinctive characteristics of a style, type, period, or method of construction, or is a valuable example of the use of indigenous materials or craftsmanship
6. Represents the work of notable builders, designers, or architects
7. Embodies a collection of elements of architectural design, detail, materials, or craftsmanship that represents a significant structural or architectural achievement or innovation
8. Reflects significant geographical patterns, including those associated with different eras of settlement and growth, particular transportation modes, or distinctive examples of park or community planning
9. Conveys a sense of historic and architectural cohesiveness through its design, setting, materials, workmanship, or association
10. Has yielded or may be likely to yield information important in history or prehistory

3.3.4 Methodology and Thresholds of Significance

Impacts on historical and archaeological resources are determined based on the sensitivity or significance of designated and eligible historical resources or archaeological resources and the direct and indirect impacts that would result from reasonably foreseeable future development that could occur under the Project. If direct or indirect impacts would occur on such historical or archaeological resources, mitigation measures would be required.

Criteria to determine the significance of historical resources are summarized in Section 3.3.3, *Regulatory Setting*. Physical impacts on historical resources typically include direct disturbance and/or destruction of a resource and occur during construction. Aesthetic effects on historical resources typically consist of indirect impacts, such as changes to the visual or auditory landscape. The demolition, substantial alteration, or de-designation of a historical resource would constitute a significant impact.

For archaeological resources, potential impacts could occur for reasonably foreseeable future development projects that result in disturbance and/or destruction of previously recorded and/or undiscovered archaeological resources. The disturbance and/or destruction of archaeological resources would be considered a significant impact. For prehistoric and historical period archaeological resources, previous studies conducted for the City including the *Program Environmental Impact Report for the City of Riverside General Plan 2025 Program Update* (Albert A. Webb Associates 2007), the *Cultural Resources Study for the City of Riverside General Plan 2025 Update Program EIR* (Applied EarthWorks, Inc. 2007), the *2014–2021 Housing Element Update Housing Implementation Plan Environmental Impact Report* (Michael Baker International 2017), and associated environmental documents were consulted. Cultural resources literature and records searches were not conducted for this analysis, as it was determined that additional studies would be conducted on an individual, project-specific basis for each individual development project (see Mitigation Measures **MM-CUL-1** and **MM-CUL-2**).

Thresholds of Significance

An Initial Study was prepared for the Project in April 2021. The following environmental threshold was scoped out from detailed review in this section of the Draft EIR because the impact was determined to be less than significant in the Initial Study:

- Disturb any human remains, including those interred outside of formal cemeteries

For a complete discussion of the environmental issues that were scoped out from this Draft EIR, refer to Section 3.15, *Effects Not Found to Be Significant*.

In accordance with Appendix G of the State CEQA Guidelines, the Project would be considered to have a significant effect if it would:

- Result in a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5
- Result in a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5

3.3.5 Impacts and Mitigation Measures

Impact CUL-1: The Project could cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5. Implementation of Mitigation Measure MM-CUL-1 would reduce this impact to a less-than-significant level.

Housing Element Update, Zoning Code Amendments, and Environmental Justice Policies

Opportunity Sites are distributed throughout the City. These sites represent those with limited development constraints, and one of the factors weighing into the development suitability model favored older properties. Opportunity Sites under the proposed Housing Element Update are situated throughout the City and coincide with a large number of historical resources, as shown on Figures 3.3-1a to 3.3-1g and Appendix E. Opportunity Sites are currently situated in six Historic Districts, one potential Historic District, two Neighborhood Conservation Areas, and 16 NRHP sites. In addition, 51 Landmarks and 373 Structures of Merit are currently proposed to be Opportunity Sites. These numbers include the historical resources that are within the Innovation District and Downtown Specific Plan boundaries but are not specifically listed in the Opportunity Sites Inventory.

The discussion below explores the ways in which the Housing Element Update's site selection could avoid and mitigate impacts on a historical resource. It distinguishes between Opportunity Sites that contain a known historical resource and Opportunity Sites that may contain a historical resource.

Designated or Eligible Resource Is Present on an Opportunity Site, or an Opportunity Site Is Located in a Historic District or Neighborhood Conservation Area

The Cultural Resources Ordinance provides a process for historic preservation-related reviews through the approval or denial of a Certificate of Appropriateness. As described in Section 3.3.2, *Environmental Setting*, a Certificate of Appropriateness is required for the rehabilitation, alteration, demolition, etc. "of any designated Cultural Resource, eligible Cultural Resource, any element in a geographic Historic District (contributing and non-contributing), or a contributing feature or contributor to a Neighborhood Conservation Area." If a future development under the Housing Element Update involves the proposed demolition or alteration of a non-contributor in a Historic District, the discrete project would be subject to Certificate of Appropriateness requirements, though with different principles, issues, and standards than for district contributors. Future development projects involving the demolition or alteration of a contributor in a Historic District or Neighborhood Conservation Area would be subject to the Certificate of Appropriateness requirements.

The approval or denial of a Certificate of Appropriateness is based on a number of factors, including the specific project's consistency with the SOI Standards and City-established design guidelines. The Cultural Heritage Board and the Historic Preservation Officer (or Qualified Designee in his/her place) share the responsibility of reviewing these applications.

Therefore, the Cultural Resources Ordinance would mandate that development facilitated by the Project would result in less-than-significant impacts on a resource known to qualify as a historical

resource under CEQA or a resource treated as a qualifying historical resource under CEQA in accordance with the ordinance's provisions.

A Previously Unidentified Historical Resource Is Located on an Opportunity Site

While much of the City has been surveyed and studied, potential significance of much of the City's remaining built environment and designed landscapes remains unknown. Therefore, a potential historical resource (including, but not limited to, resources 50 years of age or older, consistent with CRHR and NRHP guidelines and pursuant to Section 15064.5) could be present on an Opportunity Site outside of a previously surveyed area. For proposed development on a property that meets the following three criteria, implementation of Mitigation Measure **MM-CUL-1** would result in no impacts. This mitigation measure mirrors the ministerial process for projects involving known historical resources:

- The property is not in a previously surveyed area.
- The property has not been previously identified as a historical resource for the purposes of CEQA, i.e., known cultural resource or eligible cultural resource pursuant to the Cultural Resources Ordinance.
- The property contains at least one building that is at least 50 years of age (at the time of the application) as is consistent with CRHR and NRHP guidelines.

Public Safety Element Update and Environmental Justice Policies

The City's update to the Public Safety Element would focus on natural and human-caused hazards, pandemic preparedness and response, climate change, and other safety issues. Section 2.2.3, *Public Safety Element Update*, provides a sampling of draft proposed policies. These policies would not enable future development and they would not demolish, physically alter, or otherwise diminish the integrity of a historical resource. Policy HP-EJ-1.0 encourages the identification and preservation of historical and cultural resources associated with communities whose histories and historical contributions are not well documented. Rather than a destructive process, such preservation policies would work to preserve historical resources if they were enacted and would not result in ground disturbance or alter built environment resources. As with the policies related to the Public Safety Element, because this is a policy document, it does not appear that any of these policies would involve ground disturbance or alter built environment resources, and, as such, would not cause a substantial adverse change in the significance of a historical resource.

Mitigation Measures

The potential impacts of the Project described in this section would be reduced to less-than-significant levels with implementation of the following mitigation measures.

MM-CUL-1: Conduct a historical resource assessment.

The individual applicants shall hire a Secretary of the Interior-qualified historic preservation professional to conduct a historical resource assessment if a structure to be affected by a subsequent development project, at the time of application, is not in a previously surveyed area, is not a historical resource for the purposes of CEQA, and is at least 50 years old. The assessment shall formally evaluate the potential resource's eligibility for listing to the CRHR, its potential eligibility as a Landmark or Structure of Merit, and its potential eligibility as a Contributor to a

Historic District or Neighborhood Conservation Area. If the resource is found eligible for any of those designations, it shall be considered a resource that qualifies as a historical resource under CEQA and is therefore subject to the provisions of the Cultural Resources Ordinance. This includes obtaining the pertinent Certificates of Appropriateness and ensuring that the project plans adhere to the SOI Standards. For resources found ineligible for any of those designations, no additional mitigation would be necessary.

Impact CUL-2: The Project could cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5. Implementation of Mitigation Measures MM-CUL-2 through MM-CUL-9 would reduce this impact to less-than-significant levels.

Housing Element Update, Zoning Code Amendments, and Environmental Justice Policies

Opportunity Sites are distributed throughout the City. Using data from citywide records searches, the *Cultural Resources Study for the City of Riverside General Plan 2025 Update Program EIR* (Applied EarthWorks, Inc. 2007) conducted an archaeological sensitivity analysis. Through this analysis, areas of high, medium, low, and unknown sensitivity were identified within the City limits. Large portions of the City were identified as unknown due to a lack of archaeological survey in these areas. Because Opportunity Site-specific records searches were not conducted for this analysis, the results of the 2007 study were used for analytical purposes. It is likely that numerous archaeological studies have taken place since this study was conducted 15 years ago, so a similar study with current data may yield slightly different results. However, this work can be viewed as a proxy for understanding relative archaeological sensitivity throughout the City and at Opportunity Sites. On Figure 3.3-2, the results of the Applied Earthworks study are overlain with the locations of Opportunity Sites in the City. The results of this analysis are presented in Table 3.3-2 in terms of total acreage and numbers of Opportunity Sites within the sensitivity categories defined by Applied Earthworks.

Most of the Opportunity Sites associated with this Project are in areas of unknown archaeological sensitivity, while a smaller number of these sites are in areas of low to high archaeological sensitivity. The locations with unknown archaeological sensitivity are areas where archaeological studies had not been conducted at the time of the 2007 analysis. It is likely that many archaeological surveys have been conducted throughout the City since the Applied Earthworks study, and many additional archaeological sites have been recorded and evaluated. Because the Opportunity Sites under the proposed Housing Element Update are situated throughout the City and in mostly unsurveyed areas, the potential for Opportunity Sites to encounter archaeological resources is unknown. Future cultural resources/archaeological studies at Opportunity Site locations (see Mitigation Measure **MM-CUL-2**) would identify whether such resources exist.

Development of Opportunity Sites could potentially include the excavation of soils in undeveloped areas and demolition of standing structures in developed areas. Excavation and demolition activities could result in the discovery of previously unidentified archaeological resources and the destruction of known archaeological resources if they have been identified through cultural resources studies.

Therefore, ground-disturbing activities could result in the discovery of previously unidentified archaeological resources and the destruction of known archaeological resources, which would be a

potentially significant impact. For Opportunity Site projects that require CEQA analysis (non-ministerial projects), implementation of Mitigation Measure **MM-CUL-2** would reduce this impact to less-than-significant levels. If archaeological resources are discovered during an archaeological study (Mitigation Measure **MM-CUL-2**), or if archaeological resources are identified as inadvertent discoveries during ground-disturbing activities, then Mitigation Measures **MM-CUL-3 through MM-CUL-8** would reduce this impact to less-than-significant levels. Not all projects would require Mitigation Measures **MM-CUL-3** through **MM-CUL-8**, as these mitigation measures are only applicable if archaeological resources are discovered during an archaeological study (Mitigation Measure **MM-CUL-2**) or as unanticipated discoveries.

Table 3.3-2. Opportunity Sites Related to 2007 Applied Earthworks Archaeological Sensitivity Analysis

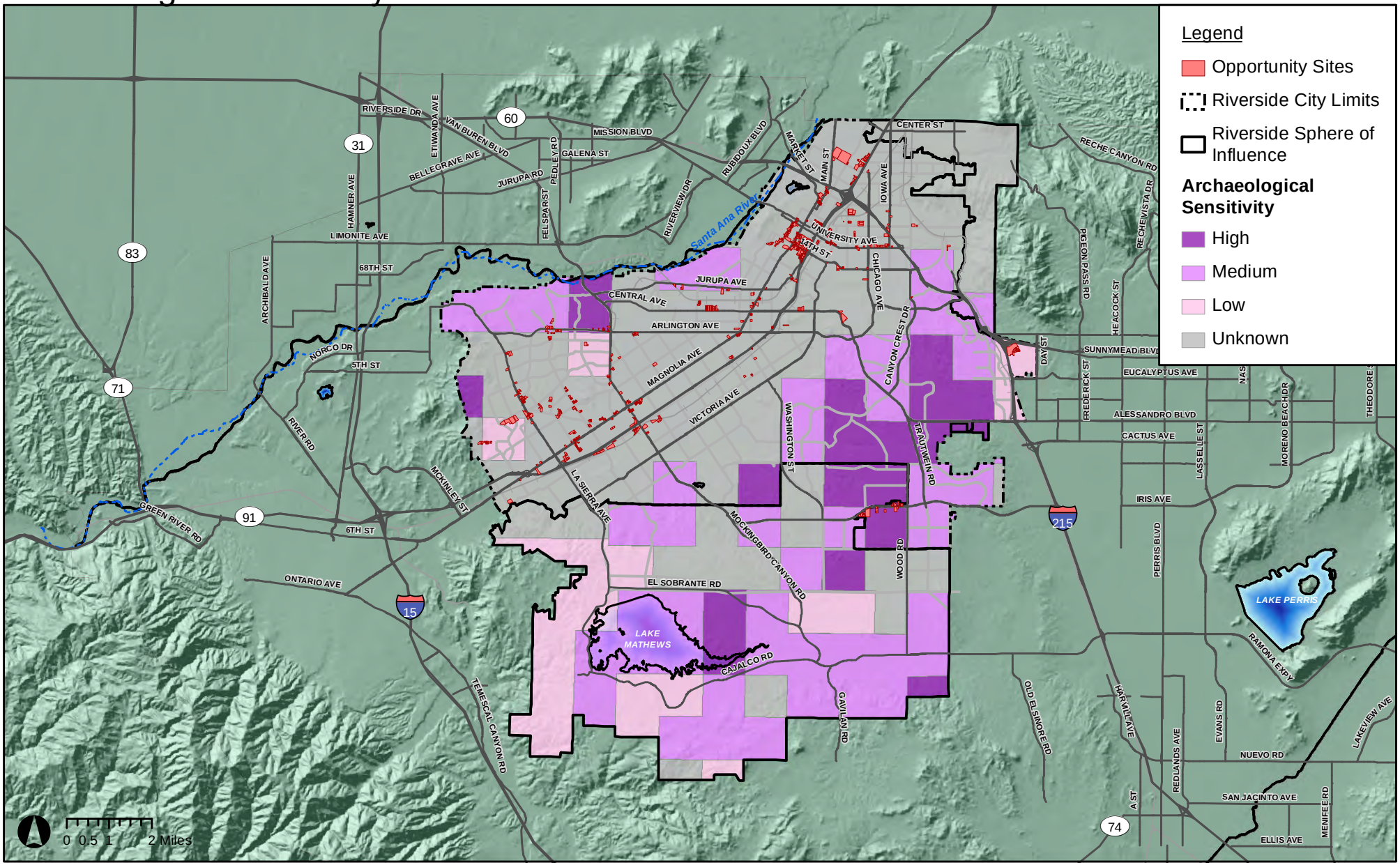
Sensitivity	Number of Opportunity Sites (parcels)	Square Feet	Acres
High	28	1,950,477.18	45
Medium	34	1,346,080.50	31
Low	32	3,064,661.35	70
Unknown (no archaeological studies)	792	29,352,891.62	674
Totals	883	35,714,838.65	820

Public Safety Element Update and Environmental Justice Policies

The Public Safety Element Update policies and implementing actions address natural hazards; transportation hazards; police, fire, and emergency services; pandemic preparedness and response; homelessness; and climate change and resiliency. The Public Safety Element Update also includes policies and actions related to management of hazardous materials and other safety topics related to emergency access and pedestrian safety that could prompt the construction of roadways, sidewalks, and bike paths (as a means to improving emergency access and safety). However, no specific infrastructure improvements or projects are identified in the Public Safety Element Update. As this is a policy document, this update would not cause a substantial adverse change in the significance of an archaeological resource. Policies related to environmental justice under the proposed Public Safety Element Update would not involve future development or the construction of new housing, public safety infrastructure, and mixed-use development. Rather, these policies describe treatment of hazardous materials associated with contaminated sites within environmental justice communities; ensure access to affordable housing, health care, and emergency services; consider the needs of environmental justice communities in planning for emergency response and recovery; consider health implications for land use decisions that could involve hazardous uses; and minimize the potential for vehicular and pedestrian accidents in underserved areas. Policy HP-EJ-1.0 encourages the identification and preservation of historic and cultural resources associated with communities whose histories and historical contributions are not well documented. This policy could result in the preservation of a particular archaeological resource (prehistoric or historic period in age). Rather than a destructive process, such preservation policies would work to preserve archaeological resources if they were enacted and would not result in ground disturbance. As with the policies related to the Public Safety Element, because this is a policy document, the Project would not involve ground disturbance, and, as such, would not cause a substantial adverse change in the significance of an archaeological resource.

Figure 3.3-2

Archaeological Sensitivity



Mitigation Measures

The potential impacts of the Project described in this section would be reduced to less-than-significant levels with implementation of the following mitigation measures.

MM-CUL-2: Conduct an archaeological study.

For Opportunity Site development projects that require CEQA analysis (non-ministerial projects), prior to construction, and if it is determined that the development project will involve ground disturbance of some type, the applicant shall conduct an archaeological study. This study will be conducted during project-specific CEQA analyses at Opportunity Sites that have not been studied in such a manner in the previous 5 years. The archaeological study shall follow the guidelines set forth by the City of Riverside Community & Economic Development Department in the document titled *Consultant Requirements for Cultural Resources Survey, Studies and Reports Information Sheet* (City of Riverside Community & Economic Development Department 2011) or successor document.

The cultural resources archaeological recommendations shall be valid for 5 years after the date of the record search. After 5 years, the applicant shall retain an archaeologist who shall acquire an updated record search from the Eastern Information Center and review the cultural resources technical report recommendations.

For proposed development locations where only a record search and/or a site visit have already been conducted prior to this EIR, the project applicant shall retain an archaeologist to:

- Review record search results, site visit results, and any recommendations.
- Obtain an updated record search from the Eastern Information Center if the record search is older than 5 years.
- Review available historic maps, historic aerials, and other archival materials.
- Prepare a cultural resources memo with existing or updated record search results; a summary of background research of historic maps, aerials, etc.; and potential for historic and prehistoric archaeological resources to be present at the proposed development location. Additionally, the memo shall identify potential impacts and provide recommendations.

The City shall review these findings and make a determination regarding the significance of project-level impacts prior to approval of any future development. Should the archaeological study result in the identification of archaeological resources on the proposed development site, or should unanticipated discoveries of previously unknown archaeological resources be made during ground-disturbing activities at an Opportunity Site, Mitigation Measures **MM-CUL-3** through **MM-CUL-6** would be applicable.

MM-CUL-3: Avoid archaeological sites through establishment of Environmentally Sensitive Areas (ESAs).

If archaeological resources are identified either through an archaeological study or as unanticipated discoveries during construction, implementation of Mitigation Measure **MM-CUL-3** would be required. Avoidance is always the preferred method of treatment for archaeological sites. Additionally, should sacred objects or objects of religious importance to Native American

tribes be identified, preservation in place avoids conflicts with traditional values of tribes who ascribe meaning to these resources and their locations. Impacts on cultural resources can be avoided through establishing fencing around cultural resources with a buffer and delineating these locations as ESAs. The appropriate buffer size shall be delineated upon consultation with Native American tribes and the City (for prehistoric resources). The City and the consultant archaeologist for individual development projects shall determine appropriate buffers for historical-period (non-Native American) archaeological resources on a case-by-case basis based on the known extent of archaeological sites and the relationship to proposed ground disturbance.

MM-CUL-4: Develop and implement an Archaeological Treatment Plan (ATP) for evaluation of newly discovered and/or unevaluated archaeological resources.

Mitigation Measure **MM-CUL-4** shall apply as follows:

- The results of an archaeological study conducted under Mitigation Measure **MM-CUL-2** are unable to determine the eligibility of newly identified archaeological sites for inclusion to the CRHR and it is determined by the consulting archaeologist that additional study through Phase II testing is required;
- It is not possible to avoid impacts through the establishment of ESAs; or
- Unanticipated archaeological resources are discovered during construction on Opportunity Sites.

If it is necessary to properly evaluate such properties in such a manner, an ATP shall be developed that describes methods and procedures for conducting subsurface excavations to determine the vertical and horizontal extents of an archaeological site. The ATP shall define the parameters of archaeological testing at the site and the extent of excavation and analysis of any materials recovered. The ATP shall also include guidelines for treatment and curation of any materials recovered during the testing process. Subsequent to implementation of the ATP, a technical report describing the methods and results of archaeological testing and formal evaluations of the archaeological sites and recommendations for further treatment shall be completed. The ATP shall be approved by the City and should involve consultation and review by Native American tribes consulting on the proposed development project. An ATP shall only be necessary for newly discovered archaeological sites that require additional information to make determinations of eligibility.

MM-CUL-5: Implement data recovery for CRHR-eligible sites that cannot be avoided.

If archaeological studies identify a cultural resource as being potentially eligible for listing in the CRHR and ESAs cannot be established or project design cannot be altered, resulting in impacts on the site, then a Phase III data recovery program shall be developed, when mutually agreed upon by Native American representatives (for prehistoric or historic-period Native American sites) and the City. The data recovery program shall be outlined in a Data Recovery Treatment Plan that details the procedures and objectives for mitigation of impacts on the archaeological site. The Data Recovery Treatment Plan shall include a research design with testable hypotheses and data requirements necessary to address these hypotheses. Additionally, the Data Recovery Treatment Plan shall identify methods of excavation, analysis, and curation of any archaeological materials recovered. The Data Recovery Treatment Plan shall also identify the

treatment of any human remains discovered during data recovery procedures. If the archaeological resource is Native American (prehistoric or historic-period in age), then the City, the applicant, and the archaeologist shall engage in consultation so that Native American representatives can be involved in the development of the data recovery plan.

Data recovery shall involve analysis of a representative sample of the materials recovered during excavation. For prehistoric archaeological sites, all excavations should be monitored by a representative from a geographically appropriate Native American group. At the conclusion of the data recovery program, a data recovery technical report shall be completed detailing the results of the excavations and analysis. Curation of recovered archaeological materials shall be conducted per the guidance in the Data Recovery Treatment Plan and with consultation between the City and appropriate Native American tribes. Other forms of mitigation could include additional research with archival sources, landscape studies, designation of open space, public outreach programs, and public education/public displays.

MM-CUL-6: Retain an on-call archaeologist for monitoring.

For Opportunity Site development projects that require CEQA analysis, Mitigation Measure MM-CUL-6 shall be implemented when archaeological studies completed under Mitigation Measure MM-CUL-2 determine that a project has a less-than-significant potential for archaeological discoveries. Additionally, upon agreement between Native American representatives (for prehistoric or historic-period Native American sites) and the City for archaeological resources that have not been determined eligible for listing in the CRHR or NRHP that are unavoidable at an Opportunity Site, Mitigation Measure MM-CUL-6 shall be implemented. Prior to the issuance of a grading permit, the applicant shall provide a letter from a qualified archaeologist stating that the applicant has retained their services, and that the archaeologist shall be on call during all grading and other significant ground-disturbing activities in native sediments.

MM-CUL-7: Conduct archaeological and Native American monitoring.

If cultural resource studies have identified archaeological resources determined eligible for the CRHR or NRHP that are unavoidable at an Opportunity Site, Mitigation Measure **MM-CUL-7** shall be implemented upon agreement among Native American representatives (for prehistoric or historic-period Native American sites). At least 30 days prior to application for a grading permit and before any grading, excavation, and/or ground-disturbing activities take place, the applicant shall retain an SOI Standards–qualified archaeological monitor to monitor all ground-disturbing activities in an effort to identify any unknown archaeological resources.

The archaeologist, in consultation with consulting tribes, the applicant, and the City, shall develop an Archaeological Monitoring Plan to address the details, timing, and responsibility of all archaeological and cultural activities that occur on a development site. Details in the plan shall include:

1. Project grading and development scheduling:
    a. The development of a rotating or simultaneous schedule in coordination with the applicant and the project archaeologist for designated Native American tribal monitors (if resources are prehistoric in age) from the consulting tribes during grading, excavation, and ground-disturbing activities on the site, including the scheduling, safety

requirements, duties, scope of work, and Native American tribal monitors' authority to stop and redirect grading activities in coordination with all project archaeologists

b. The protocols and stipulations that the applicant, tribes, and project archaeologist for the individual development project shall follow in the event of inadvertent cultural resource discoveries, including any newly discovered cultural resource deposits that shall be subject to a cultural resources evaluation

c. Treatment and final disposition of any cultural resources, sacred sites, and human remains if discovered on a development site

d. The scheduling and timing of the Cultural Sensitivity Training

MM-CUL-8: Employ procedures for treatment and disposition of cultural resources.

If cultural resources are inadvertently discovered during the course of grading for individual Opportunity Sites, the following procedures shall be carried out for treatment and disposition of the discoveries:

1. **Consulting Tribe(s) Notified:** Within 24 hours of discovery, and if the resources are Native American in origin, the consulting tribe(s) shall be notified via email and phone. The applicant shall provide the City evidence of notification to consulting tribes. Consulting tribe(s) shall be allowed access to the discovery in order to assist with the significance evaluation.
2. **Temporary Curation and Storage:** During the course of construction, all discovered resources shall be temporarily curated in a secure location on site or at the offices of the project archaeologist. The removal of any artifacts from a development site shall be thoroughly inventoried with tribal monitor oversight of the process.
3. **Treatment and Final Disposition:** The landowner(s) shall relinquish ownership of all cultural resources, including sacred items, burial goods, and all archaeological artifacts and non-human remains, as part of the required mitigation for impacts on cultural resources. The applicant shall relinquish the artifacts through one or more of the following methods and provide the City of Riverside Community & Economic Development Department with evidence of same:

    a. Accommodate the process for onsite reburial of the discovered items with the consulting Native American tribes or bands. This shall include measures and provisions to protect the future reburial area from any future impacts. Reburial shall not occur until all cataloguing and basic recordation have been completed.

    b. Execute a curation agreement with an appropriate qualified repository within Riverside County that meets federal standards per 36 CFR Part 79 and therefore will ensure professional curation and availability to other archaeologists/researchers for further study. The collections and associated records shall be transferred, including title, to an appropriate curation facility within Riverside County, to be accompanied by payment of the fees necessary for permanent curation.

    c. If more than one Native American tribe or band is involved with the subsequent development project and cannot come to a consensus as to the disposition of cultural materials, curate the discovered items at the Western Science Center or Museum of Riverside by default.

d. At the completion of grading, excavation, and ground-disturbing activities on the site, provide to the City a Phase IV Monitoring Report documenting monitoring activities conducted by the project archaeologist and Native American tribal monitors within 60 days of completion of grading. This report shall document the impacts on the known resources on the property; describe how each mitigation measure was fulfilled; document the type of cultural resources recovered and the disposition of such resources; provide evidence of the required Cultural Sensitivity Training for the construction staff held during the required pre-grade meeting; and, in a confidential appendix, include the daily/weekly monitoring notes from the archaeologist. All reports produced shall be submitted to the City, the Eastern Information Center, and consulting tribes.

MM-CUL-9: Conduct cultural sensitivity training.

For Opportunity Site development projects where either Mitigation Measures **MM-CUL-6** or **MM-CUL-7** are implemented, Mitigation Measure **MM-CUL-9** shall also be implemented. Prior to the commencement of construction activities, the SOI Standards–certified archaeologist and Native American monitors shall attend the pre-grading meeting with the applicant/permit holder's contractors to provide Cultural Sensitivity Training for all construction personnel. This shall include the procedures to be followed during ground disturbance in sensitive areas and protocols that apply in the event unanticipated resources are discovered. Only construction personnel who have received this training can conduct construction and disturbance activities in sensitive areas. A sign-in sheet for attendees of this training shall be included in the Phase IV Monitoring Report.

3.4 Paleontological Resources

3.4.1 Introduction

This section describes the environmental and regulatory setting for paleontological resources for the Project and provides an analysis of potential impacts on paleontological resources that could occur with implementation of the Project. The analysis examines the degree to which the Project may result in impacts on paleontological resources in the City of Riverside (City) and includes analysis of potential impacts related to paleontological resources. The analysis methods, data sources, significance thresholds, and terminology used in this section are described in the appropriate subsections below.

Details on the location of the Project and a description of Project activities are included in Chapter 2, *Project Description*, of this EIR.

3.4.2 Environmental Setting

Fossils (paleontological resources) preserve information about ancient animals and plants (University of California Museum of Paleontology n.d.). There are two types of fossils: body fossils (remains of an organism) and trace fossils (e.g., footprints, burrows, trails). Fossils can add to the scientific record by providing information about the anatomy of an organism and clues to its life processes, the successive evolutional evolution of organisms, and successive colonization of habitats. Fossils are a nonrenewable resource; that is, once destroyed, a fossil cannot be replaced. Fossils represent irreplaceable evidence of past life on the planet (National Park Service 2020).

Fossils occur within geologic units. A geologic unit is a volume of rock or sediment of identifiable origin with an age range that is defined by distinctive and dominant features. Generally, geologic units of middle Holocene age (last approximately 5,000 years) are too recent to yield significant fossils, but geologic units in certain older depositional environments have the potential to yield significant fossils (Society of Vertebrate Paleontology 2010). Significant fossils (or sensitive paleontological resources) are defined by the Society of Vertebrate Paleontology (SVP) (2010) as being "identifiable vertebrate fossils, large or small, uncommon invertebrate, plant, and trace fossils, and other data" that provide information valuable to the scientific community. Geologic units have varying potential to contain significant fossils,[1] called *paleontological sensitivity*.

Mapping in the City shows surficial deposits as Dune sand, Holocene alluvium, Pleistocene nonmarine deposits, and Mesozoic granitic rocks (Rogers 1965, 1967; POWER Engineers and Deméré 2010). The granite rocks ring the lower elevations of the City (POWER Engineers and Deméré 2010). Paleozoic and Mesozoic metamorphic rock, late Mesozoic plutonic rock, and Cretaceous and Cenozoic sedimentary rock underlie the surficial units. Sedimentary geologic units underlying the City that are older than the Holocene (i.e., Dune sand and Holocene alluvium), other than the plutonic units, have the potential to contain significant paleontological resources.

[1] Significant paleontological resource, as defined by SVP, are "identifiable vertebrate fossils, large or small, uncommon invertebrate, plant, and trace fossils, and other data that provide taphonomic, taxonomic, phylogenetic, paleoecologic, stratigraphic, and/or biochronologic information." (SVP 2010). Paleontological resources are considered to be older than middle Holocene (i.e., older than about 5,000 years).

Significant paleontological resources exist in many areas in Southern California, including in Riverside County near the City. According to the investigation executed by the Natural History Museum of Los Angeles County, several vertebrate fossils have been recovered from unspecified Pleistocene geologic units and the early Pliocene to early Pleistocene San Timoteo Formation (Bell pers. comm.). Fossils that were recovered include *Masticophis* (a genus of whip snake) and members of the Bovidae, Equidae, and Camelidae families. In addition, a south-trending bend in the Santa Ana River yielded fossils from Ice Age mammals, including *Mammuthus* (an extinct genus of mammoth) (Albert A. Webb Associates 2007). Because people collected fossils from the site and lands along the Santa Ana River in this area have been converted to residential development, the previous exposure that yielded the fossils is no longer visible.

The County of Riverside Paleontological Sensitivity Model (County of Riverside Transportation and Land Management Agency 2015) maps paleontological sensitivity throughout Riverside County, including the City of Riverside (Figure 3.4-1). It recognizes four categories of sensitivity: High A, High B, Low, and Undetermined. The County of Riverside defines these categories according to whether the geologic units in the mapped geographies are likely to contain paleontological resources that could be affected by ground disturbance, as described below in Section 3.4.4.

According to the SVP (2010), a geologic unit with undetermined paleontological sensitivity requires a field study by a qualified paleontologist to determine the paleontological potential of this unit before an impact determination and mitigation program can be made. Accordingly, geologic units with High A, High B, and Undetermined paleontological sensitivity have the potential to yield significant paleontological resources.

The County of Riverside Paleontological Sensitivity Model shows that most of the area within the City limits contains geologic units with High A, High B, or Undetermined paleontological sensitivity, with a minority containing geologic units with low paleontological sensitivity. As shown on Figure 3.4-1, the Opportunity Sites are predominantly in areas with High A, High B, and Undetermined paleontological sensitivity, as described further below in Section 3.4.4.

3.4.3 Regulatory Setting

Federal

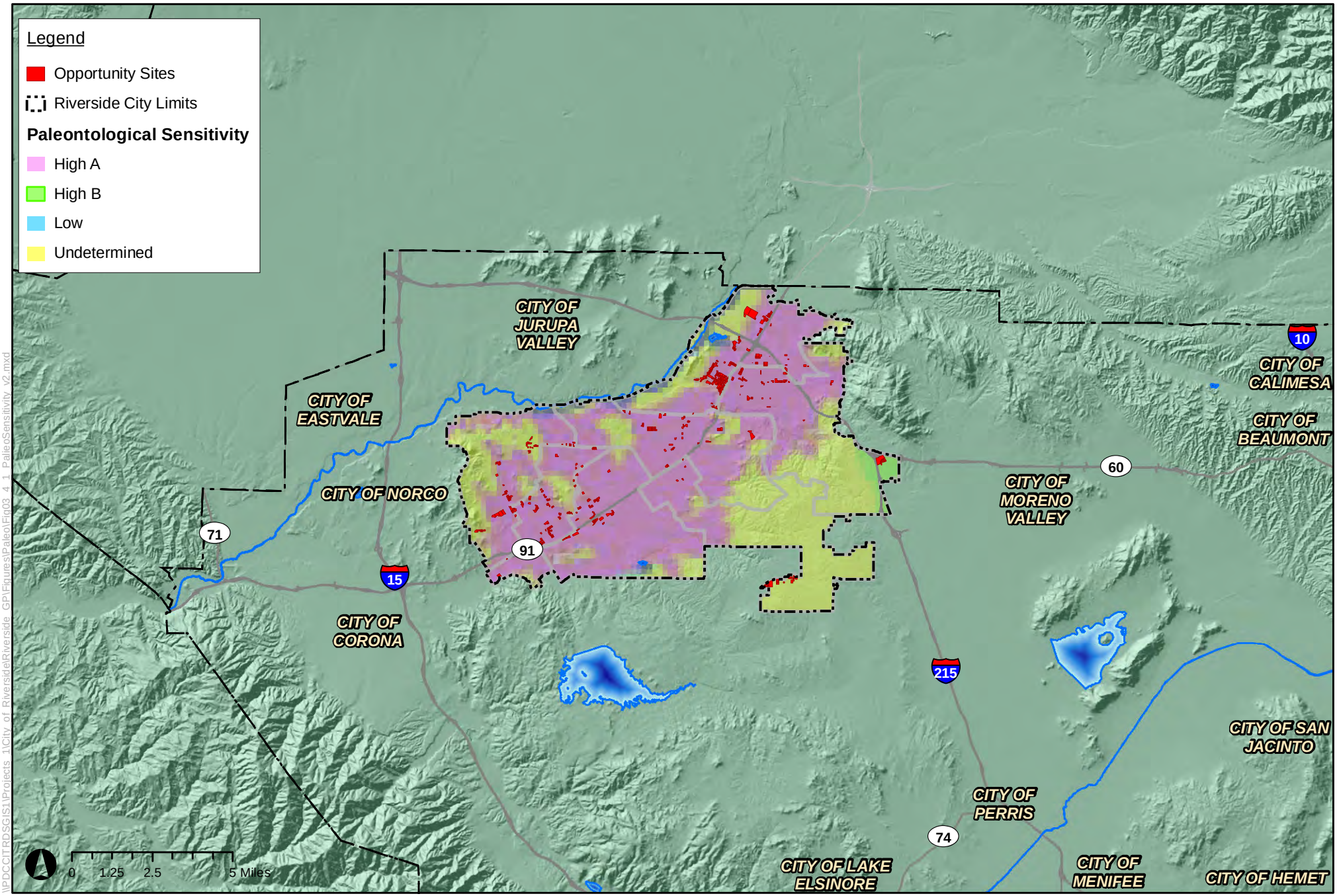
Several federal regulations address paleontological resources. These statutes generally are applicable to a project if it involves a federal agency license, permit, approval or funding, and/or crosses federal lands.

The Antiquities Act of 1906

The Antiquities Act of 1906 states that any person who appropriates, excavates, injures, or destroys any historic or prehistoric ruin or monument, or any object of antiquity, situated on lands owned or controlled by the Government of the United States, without the permission of the Secretary of the Department of the Government having jurisdiction over the lands on which said antiquities are situated, upon conviction would be fined a sum of not more than 500 hundred dollars or be imprisoned for a period of not more than 90 days, or both, at the discretion of the court. While the act does not specially address paleontological resources, the term “objects of antiquity” has been interpreted by the National Park Service, Bureau of Land Management, Forest Service, and other agencies to include fossils. Permits to collect fossils on federal lands are authorized under this act.

Figure 3.4-1

Paleontological Sensitivity in the Study Area



Title 23 United States Code Section 305

This statute amends the Antiquities Act of 1906 and allows for funding for mitigation of paleontological resources on projects funded by federal highway funds. The statute contemplates that "excavated objects and information are to be used for public purposes without private gain to any individual or organization" (*Federal Register* 46(19):9570).

National Registry of Natural Landmarks

The National Natural Landmarks (NNL) Program (16 United States Code 461–467), established in 1962 under the authority of the Historic Sites Act of 1935, recognizes and encourages the conservation of outstanding examples of our country's natural history. As the only natural areas program of national scope that identifies and recognizes the best examples of biological and geological features in both public and private ownership, the program provides for NNLs to be designated by the Secretary of the Interior, with the owner's concurrence, as being of *national significance*: one of the best examples of a biological community or geological feature within a natural region of the U.S., including terrestrial communities, landforms, geological features and processes, habitats of native plant and animal species, or fossil evidence of the development of life (36 Code of Federal Regulations 62.2). The National Park Service administers the NNL Program and, if requested, assists NNL owners and managers with the conservation of these important sites.

Paleontological Resources Preservation Act of 2009

The Paleontological Resources Preservation Act is part of the Omnibus Public Land Management Act of 2009 (Public Law 111-11, Title VI, Subtitle D). This act directs the Secretary of the Interior or the Secretary of Agriculture to manage and protect paleontological resources on federal land and develop plans for inventorying, monitoring, and deriving the scientific and educational use of such resources. It prohibits the removal of paleontological resources from federal land without a permit issued under this act, establishes penalties for violation of this act, and establishes a program to increase public awareness about such resources. The bill imposes criminal penalties for violating this act, which include serving up to 10 years in prison if convicted.

State

Paleontological resources are fossilized remains of plants and animals, and associated deposits. Appendix G of the State CEQA Guidelines requires that a determination be made as to whether a project would directly or indirectly destroy a unique paleontological resource or site or unique geological feature.

Public Resources Code Section 5097.5

Public Resources Code Section 5097 addresses paleontological, archaeological, and historic sites on state land that may be disturbed as part of a project being evaluated under CEQA. Public Resources Code Section 5097.5 considers it a misdemeanor to knowingly and willfully excavate upon or remove, destroy, injure, or deface any historic or prehistoric ruins, burial grounds, or 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.

Local

Table 3.4-1. Relevant Riverside General Plan and Specific Plan Policies

Plan	Policy
Riverside General Plan 2025	
Historic Preservation Element	Policy HP-1.3: The City shall protect sites of archaeological and paleontological significance and ensure compliance with all applicable state and federal cultural resources protection and management laws in its planning and project review process.
Specific Plans	
Canyon Springs Business Park Specific Plan	There are no applicable policies relevant to the Project regarding paleontological resources.
Downtown Specific Plan	There are no applicable policies relevant to the Project regarding paleontological resources.
Hunter Business Park Specific Plan	There are no applicable policies relevant to the Project regarding paleontological resources.
La Sierra University Specific Plan	There are no applicable policies relevant to the Project regarding paleontological resources.
Magnolia Avenue Specific Plan	There are no applicable policies relevant to the Project regarding paleontological resources.
Riverside Marketplace Specific Plan	There are no applicable policies relevant to the Project regarding paleontological resources.
University Avenue Specific Plan	There are no applicable policies relevant to the Project regarding paleontological resources.

Sources: City of Riverside 1991, 2002, 2005, 2007, 2009, 2012, 2017a, 2017b.

Policy Consistency

The Project would be consistent with City policies relating to paleontological resources in the Historic Preservation Element (City of Riverside 2012) through implementation of Mitigation Measures **MM-PAL-1**, **MM-PAL-2**, and **MM-PAL-3**. These measures require future projects enabled by the Project that could potentially affect paleontological resources to evaluate for such resources in both the construction and operational periods, monitor for paleontological resources during construction in areas with high or undetermined paleontological sensitivity, and appropriately record and curate any fossils that have significance for the scientific record that are unearthed.

3.4.4 Methodology and Thresholds of Significance

The following analysis is based on information presented in a report from the California Museum of Paleontology describing fossils retrieved near the City (Bell pers. comm.), a report prepared for Riverside Public Utilities regarding the City (POWER Engineers and Deméré 2010), and the County of Riverside Paleontological Sensitivity Model. The analysis evaluates the likelihood of significant paleontological resources being present in geologic units with high paleontological sensitivity in the City.

The *Standard Procedures for the Assessment and Mitigation of Adverse Impacts to Paleontological Resources* by the SVP (Society of Vertebrate Paleontology 2010) include procedures for the investigation, collection, preservation, and cataloguing of fossil-bearing sites, including the

designation of paleontological sensitivity. These standard guidelines are widely accepted among paleontologists and are followed by most investigators. The standard guidelines identify the two key phases of paleontological resource protection as (1) assessment and (2) implementation. Assessment involves identifying the potential for a project site or area to contain significant nonrenewable paleontological resources that could be damaged or destroyed by project excavation or construction. Implementation involves formulating and applying measures to reduce such adverse effects.

The methods used to analyze potential impacts on paleontological resources for the Project and develop mitigation for the identified impacts followed the SVP's standard guidelines.

- Assessment
    - Identify the geologic units that would be affected by the Project, based on the Project's depth of excavation—either at ground surface or below ground surface.
    - Evaluate the potential of the identified geologic units to contain significant fossils (paleontological sensitivity).
    - Identify impacts on paleontologically sensitive geologic units as a result of near-term and longer-term construction and operation that involve ground disturbance.
    - Evaluate impact significance.
- Implementation
    - According to the identified degree of sensitivity, formulate and implement measures to mitigate potential impacts.

For the assessment phase, this analysis is based on paleontological sensitivity as described by County of Riverside Transportation and Land Management Agency (2015), which identifies four levels of paleontological sensitivity in geologic units within the county: Low, Undetermined, High A, and High B.

Low: Previous field surveys and documentation demonstrate that geologic units identified as having low paleontological sensitivity have a low potential for containing paleontological resources. However, the mapping could be incomplete; for example, an area mapped as having low sensitivity could in some areas be a thin, surficial layer of non-fossiliferous sediments that covers fossil-rich sediments. Therefore, actual paleontological sensitivity must be determined by a records search and a field inspection by a qualified paleontologist.

Undetermined: No existing field surveys or documentation describe the paleontological potential for geologic units identified as having undetermined paleontological sensitivity. Therefore, actual paleontological sensitivity must be determined by a field inspection by a qualified paleontologist.

High A: Existing field surveys or documentation demonstrate that geologic units with High A paleontological sensitivity either contain significant paleontological resources or have the correct age and depositional conditions to contain them.

High B: This paleontological sensitivity is similar to High A, except that this unit is based on the occurrence of significant paleontological resources at least 4 feet below ground surface; accordingly, excavation during construction could damage any such resources.

The potential of the Project to affect paleontological resources relates to ground disturbance. Geologic units in the City with potential to underlie the Opportunity Sites were identified through California Geological Survey regional maps (Rogers 1965, 1967). Determination of presence of paleontological resources in the units was based on the fossil record within these geologic units as documented by the Natural History Museum of Los Angeles County, technical literature (POWER Engineers and Deméré 2010), and the University of California Museum of Paleontology (2021). In addition, paleontological sensitivity mapping for Riverside County was consulted.

After the records search noted in Section 3.4.2, *Environmental Setting*, the paleontological sensitivity of the geologic units was assessed according to the County of Riverside's Paleontological Sensitivity Model (County of Riverside Transportation and Land Management Agency 2015).

For the purposes of this analysis, an impact on paleontological resources was considered significant and to require mitigation if it would result in any of the following:

- Damage to or destruction of vertebrate paleontological resources
- Damage to or destruction of any paleontological resource that:
    - Provides important information about evolutionary trends, including the development of biological communities;
    - Demonstrates unusual circumstances in the history of life;
    - Represents a rare taxon or a rare or unique occurrence;
    - Is in short supply and in danger of being destroyed or depleted;
    - Has a special and particular quality, such as being the oldest of its type or the best available example of its type; or
    - Provides information used to correlate strata for which it may be difficult to obtain other types of age dates.

Thresholds of Significance

An Initial Study was prepared for the Project in April 2021. In accordance with Appendix G of the State CEQA Guidelines, the Project would be considered to have a significant effect if it would:

- Result in direct or indirect destruction of a unique paleontological resource or site or unique geologic feature

3.4.5 Impacts and Mitigation Measures

This section describes potential impacts on paleontological resources that could result from implementation of the Project and recommends mitigation measures as needed to reduce significant impacts.

Impact PAL-1: The Project could directly or indirectly destroy a unique paleontological resource or site. Implementation of Mitigation Measures PAL-1, PAL-2, and PAL-3 would reduce this impact to less-than-significant levels.

Housing Element Update, Zoning Code Amendments, and Environmental Justice Policies

Because paleontological resources are generally located below the ground surface, ground disturbance associated with construction, such as excavating, grading, and resurfacing, in a geologic unit that may contain significant fossils could affect paleontological resources that may be present at the site. The proposed Housing Element Update and Zoning Code and Specific Plan amendments would enable future development and the construction of new housing, public safety infrastructure, and mixed-use development. Accordingly, future developments facilitated by the proposed Housing Element Update and Zoning Code and Specific Plan amendments could involve ground disturbance as a result of either construction activities or maintenance. Depending on the depth of disturbance and how far below ground surface the paleontological resources may be located, these ground disturbances have the potential to damage or destroy such resources. However, in identifying Opportunity Sites, attempts have been made to eliminate locations with high paleontological sensitivity.

As discussed above, the County of Riverside Paleontological Sensitivity Model shows that most of the area within the City limits contains geologic units with High A, High B, or Undetermined paleontological sensitivity, with a minority containing geologic units with Low paleontological sensitivity. Because the Opportunity Sites facilitated by the Project are situated throughout the City, it is likely that some of these Opportunity Sites are on geologic units with High A or Undetermined paleontological sensitivity. Project construction could disturb previously unknown significant fossils, potentially damaging or destroying these fossils. Future development facilitated by the Project could also result in the need for operations-period ground disturbance, such as landscaping or maintenance. Depending on the location and depth of ground disturbance, proposed operations could disturb previously unknown significant fossils, potentially damaging or destroying such fossils.

GP 2025 Policy HP-1.3 protects paleontological resources. The policy states that the City shall protect sites of archaeological and paleontological significance and ensure compliance with all applicable state and federal cultural resources protection and management laws in its planning and project review process. However, despite compliance with Policy HP-1.3, impacts would remain potentially significant. Implementation of Mitigation Measures **MM-PAL-1**, **MM-PAL-2**, and **MM-PAL-3** would reduce impacts to less-than-significant levels by requiring the project applicant and/or private developer and the City to identify whether future development sites are in areas of high or undetermined paleontological sensitivity and could have a substantial adverse effect on the significance of unique paleontological resources. If so, a Paleontological Mitigation Plan would be developed that would provide for salvage, curation, and reporting of any paleontological resources uncovered during ground disturbance.

Policies and implementing actions related to environmental justice under the proposed Housing Element Update would not enable future development or the construction of new housing, public safety infrastructure, and mixed-use development. Rather, these policies and implementing actions describe how future development and construction would be implemented with respect to housing

design, affordable housing, and access to healthy and affordable foods. Implementation of these policies and implementing actions would not affect paleontological resources.

Public Safety Element Update and Environmental Justice Policies

The Public Safety Element could facilitate development of new public infrastructure. Accordingly, future developments facilitated by the Project could involve ground disturbance. Depending on the depth of disturbance and how far below ground surface the paleontological resources may be located, these ground disturbances have the potential to damage or destroy such resources.

As discussed above, the County of Riverside Paleontological Sensitivity Model shows that most of the area within the City limits contains geologic units with High A, High B, or Undetermined paleontological sensitivity, with a minority containing geologic units with Low paleontological sensitivity. Because the development facilitated by the revised Public Safety Element under the Project would be situated throughout the City, it is likely that some of these sites are on geologic units with High A, High B, or Undetermined paleontological sensitivity. Construction of future development could disturb previously unknown significant fossils, potentially damaging or destroying these fossils. It is unlikely that operation of the Project would include ground-disturbing activities. However, future development facilitated by the Project could result in the need for operations-period ground disturbance, such as landscaping or maintenance. Depending on the location and depth of ground disturbance, proposed operations could disturb previously unknown significant fossils, potentially damaging or destroying such fossils.

GP 2025 Policy HP-1.3 protects paleontological resources. The policy states that the City shall protect sites of archaeological and paleontological significance and ensure compliance with all applicable state and federal cultural resources protection and management laws in its planning and project review process. However, despite compliance with Policy HP-1.3, impacts would remain potentially significant. Implementation of Mitigation Measures **MM-PAL-1**, **MM-PAL-2**, and **MM-PAL-3** would reduce impacts to less-than-significant levels by requiring the project applicant or sponsor and the City to identify whether the future development sites are in areas of high paleontological sensitivity and could have a substantial adverse effect on the significance of unique paleontological resources. If so, relevant construction and operations activities of the Project would be redesigned to avoid impacts, or else paleontological monitoring would be undertaken that would provide for savage, curation, and reporting of any paleontological resources uncovered during ground disturbance.

Policies and implementing actions related to environmental justice under the proposed Public Safety Element Update would not enable future development or the construction of new housing, public safety infrastructure, and mixed-use development. Rather, these policies and implementing actions describe treatment of hazardous materials associated with contaminated sites within environmental justice communities; ensure access to affordable housing, health care, and emergency services; consider the needs of environmental justice communities in planning for emergency response and recovery; consider health implications for land use decisions that could involve hazardous uses; and minimize the potential for vehicular and pedestrian accidents in underserved areas. Implementation of these policies and implementing actions would not affect paleontological resources.

Mitigation Measures

The potential impacts of the Project described in this section would be reduced to less-than-significant levels with implementation of the following mitigation measures.

MM-PAL-1: Conduct paleontological resources investigations.

During the development review process and prior to construction on Opportunity Sites that are located on geologic units with Undetermined, High A, or High B paleontological sensitivity, the project applicant shall conduct paleontological resource investigations consistent with SVP guidelines. This process shall include:

- Conducting a paleontological records search through the Los Angeles County Natural History Museum to identify previously recorded paleontological localities and the presence of sensitive deposits in the City
- Reviewing Opportunity Site design and maximum depths and extents of Project ground disturbance components
- Reviewing publicly available geotechnical reports for information concerning subsurface deposits and deposit depths across the City
- Identifying the potential for sensitive paleontological deposits underlying the Opportunity Site that project implementation could affect
- Determining whether impacts on sensitive deposits, if present, would be significant.

If no sensitive deposits are identified or if they are sufficiently deeper than the Opportunity Site excavations and would not be encountered during construction, no further steps shall be required. If sensitive deposits are identified and could be affected by development of the Opportunity Sites, implement Mitigation Measure **MM-PAL-2**.

Opportunity Site projects that propose accessory dwelling units are not expected to have paleontological resource impacts and no additional assessment is necessary.

MM-PAL-2: Avoid paleontological resources or conduct monitoring.

The applicant shall redesign the Opportunity Site development to avoid sensitive paleontological resources and deposits that could potentially contain these resources. If avoidance and/or Opportunity Site redesign is infeasible, then paleontological monitoring shall be implemented and shall include the following implementation steps:

- The applicant shall retain a qualified paleontologist, who shall attend the preconstruction meeting(s) to consult with the grading and excavation contractors or subcontractors concerning excavation schedules, paleontological field techniques, and safety issues. A qualified paleontologist is defined as an individual who (1) has an MS or PhD in paleontology or geology and/or a publication record in peer-reviewed journals; (2) also has demonstrated familiarity with paleontological procedures and techniques; (3) is knowledgeable in the geology and paleontology of the county; (4) has proficiency in recognizing fossils in the field, determining their significance, and collecting vertebrate fossils in the field; and (5) has worked as a paleontological mitigation project supervisor in the county for at least 1 year.
- A paleontological monitor or a qualified paleontologist shall be on site on a full-time basis during excavation and ground-disturbing activities that occur in any undisturbed deposits below ground surface, to inspect exposures for contained fossils. The paleontological monitor shall work under the direction of the Project's qualified paleontologist. A paleontological monitor is defined as an individual selected by the qualified paleontologist

who has experience in the collection and salvage of fossil materials. If fossils that have significance for the scientific record are discovered on a development site, the qualified paleontologist shall recover them and temporarily direct, divert, or halt grading to allow recovery of fossil remains.

- The qualified paleontologist shall be responsible for the cleaning, repairing, sorting, and cataloguing of fossil remains collected during the monitoring and salvage portion of the mitigation program.
- Prepared fossils, along with copies of all pertinent field notes, photos, and maps, shall be deposited (as a donation) at a scientific institution with permanent paleontological collections, such as the Los Angeles County Natural History Museum.
- Within 30 days after the completion of excavation and ground-disturbing activities, the qualified paleontologist shall prepare and submit to the City of Riverside Community & Economic Development Department, Planning Division a paleontological resource recovery report that documents the results of the mitigation program. This report shall include discussions of the methods used, stratigraphic section(s) exposed, fossils collected, and significance of recovered fossils.

Opportunity Site projects that propose accessory dwelling units are not expected to have paleontological resource impacts and no additional assessment is necessary.

MM-PAL-3: Avoid/minimize impacts on paleontological resources during operations.

If significant paleontological resources and sensitive deposits with the potential to contain significant paleontological resources are identified within an Opportunity Site area during design/planning (Mitigation Measures **MM-PAL-1** and **MM-PAL-2**), and deposits that are sensitive for significant paleontological resources remain exposed at or near the ground surface or become exposed during project operations, then an avoidance and minimization plan shall be prepared to avoid/minimize potential impacts during operations. This plan may include, but not be limited to:

- Securing sensitive deposits from accessibility through the development of exclusion zones
- Preparing an operations and maintenance plan to minimize degradation and exposure of sensitive deposits
- Designing and developing interpretive exhibits to provide education and understanding of the importance of avoiding and protecting sensitive deposits and paleontological resources

If significant impacts on a newly exposed or existing significant paleontological resource cannot be avoided, then Mitigation Measure **MM-PAL-2** shall be implemented.

3.5 Greenhouse Gas Emissions

3.5.1 Introduction

This section describes the environmental and regulatory setting for greenhouse gas (GHG) emissions, discusses GHG impacts that would result from the Project, determines the significance of impacts, and identifies mitigation measures that would reduce significant impacts, where feasible. The analysis methods, data sources, significance thresholds, and terminology used are described. Details on the location of the Project and a description of Project activities are included in Chapter 2, *Project Description*, of this EIR.

GHG emissions refer to airborne pollutants that affect global climate conditions. These gaseous pollutants have the effect of trapping heat in the atmosphere and consequently altering weather patterns and climatic conditions over long timescales. Therefore, unlike other resource areas that are primarily concerned with localized Project impacts (e.g., within 1,000 feet of a Project site), the global nature of climate change requires a broader analytic approach. Accordingly, whereas the GHG analysis focuses on emissions generated from activities in the City of Riverside (City), the climate change analysis area includes the global context. Please refer to Section 3.1, *Air Quality*, for a discussion of criteria pollutants and air quality.

3.5.2 Environmental Setting

Global Climate Change

The phenomenon known as the *greenhouse effect* keeps the atmosphere near the Earth's surface warm enough for the successful habitation of humans and other life forms. GHGs include carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), perfluorinated carbons (PFCs), sulfur hexafluoride (SF_6), and hydrofluorocarbons (HFCs), in addition to water vapor. These six gases are also identified as GHGs in Section 15364.5 of the State CEQA Guidelines.

Sunlight in the form of infrared, visible, and ultraviolet light passes through the atmosphere. Some of the sunlight striking the Earth is absorbed and converted to heat, which warms the surface. The surface emits infrared radiation to the atmosphere, where some of it is absorbed by GHGs and re-emitted toward the surface. Human activities that emit additional GHGs to the atmosphere increase the amount of infrared radiation that gets absorbed before escaping into space, thus enhancing the greenhouse effect and amplifying the warming of the Earth (National Park Service 2020).

Increases in fossil fuel combustion and deforestation have exponentially increased concentrations of GHGs in the atmosphere since the Industrial Revolution. Rising atmospheric concentrations of GHGs in excess of natural levels enhance the greenhouse effect, which contributes to global warming of the Earth's lower atmosphere. This warming induces large-scale changes in ocean circulation patterns, precipitation patterns, global ice cover, biological distributions, and other changes to the Earth system that are collectively referred to as *climate change* (IPCC 2007).

GHGs are global pollutants, unlike criteria air pollutants and toxic air contaminants. Criteria air pollutants and toxic air contaminants occur locally or regionally, and local concentrations respond to locally implemented control measures. However, the long atmospheric lifetimes of GHGs allow them to be transported great distances from sources and become well mixed, unlike criteria air

pollutants, which typically exhibit strong concentration gradients away from point sources. GHGs and global climate change represent cumulative impacts; that is, GHG emissions contribute, on a cumulative basis, to the significant adverse environmental impacts of global climate change.

Principal Greenhouse Gases

The GHGs listed by the Intergovernmental Panel on Climate Change (IPCC) (CO_2, CH_4, N_2O, HFCs, PFCs, and SF_6) (2014) are discussed in this section in order of abundance in the atmosphere, and the principal characteristics surrounding these pollutants are discussed below. California law and the State CEQA Guidelines contain a similar definition of GHGs (Health and Safety Code Section 38505(g); 14 California Code of Regulations 15364.5). Water vapor, the most abundant GHG, is not included in this list because its natural concentrations and fluctuations far outweigh its anthropogenic (human-made) sources. Consequently, the primary GHGs of concern associated with the Project are CO_2, CH_4, and N_2O. Note that HFCs, PFCs, and SF_6 are not discussed because those gases would be insignificant or are primarily generated by processes that are not anticipated as part of the Project.

- **Carbon Dioxide (CO_2)** enters the atmosphere through the burning of fossil fuels (oil, natural gas, and coal), solid waste, trees and wood products, respiration, and also as a result of other chemical reactions (e.g., manufacture of cement). CO_2 is also removed from the atmosphere (or "sequestered") when it is absorbed by plants as part of the biological carbon cycle.
- **Methane (CH_4)** is emitted during the production and transport of coal, natural gas, and oil. CH_4 also results from livestock and other agricultural practices and by the decay of organic waste in municipal solid waste landfills.
- **Nitrous Oxide (N_2O)** is emitted during agricultural and industrial activities, as well as during combustion of fossil fuels and solid waste.

Methods have been set forth to describe emissions of GHGs in terms of a single gas to simplify reporting and analysis. The most commonly accepted method to compare GHG emissions is the global warming potential (GWP) methodology defined by the IPCC. IPCC defines the GWP of various GHG emissions on a normalized scale that recasts all GHG emissions in terms of CO_2 equivalent (CO_2e), which compares the gas in question to that of the same mass of CO_2 (which has a GWP of 1 by definition). The GWP values used in this section are based on the IPCC Fourth Assessment Report and United Nations Framework Convention on Climate Change reporting guidelines and are defined in Table 3.5-1 (IPCC 2007). The Fourth Assessment Report GWP values are consistent with those used in the California Air Resources Board's (CARB's) 2018 California GHG inventory and *California's 2017 Climate Change Scoping Plan* (CARB 2017, 2020).

Table 3.5-1. Lifetimes, GWPs, and Abundances of Significant GHGs

Gas	GWP (100 years)	Lifetime (years)[1]	Atmospheric Abundance
CO_2	1	50–200	400 ppm
CH_4	25	9–15	1,834 ppb
N_2O	298	121	328 ppb

Sources: CARB 2020; IPCC 2007.
[1] Defined as the half-life of the gas.
ppm = parts per million; ppb = parts per billion

Greenhouse Gas Inventories

A GHG inventory is a quantification of all GHG emissions and sinks[1] within a selected physical and/or economic boundary. GHG inventories can be performed on a large scale (e.g., for global and national entities) or on a small scale (e.g., for a particular building or person). Although many processes are difficult to evaluate, several agencies have developed tools to quantify emissions from certain sources.

Table 3.5-2 outlines the most recent global, national, statewide, and local GHG inventories to help contextualize the magnitude of potential Project-related emissions. The inventory for the City is provided for both community and municipal operations. The community inventory represents the GHG emissions resulting from activities within the City's boundaries where the local government has jurisdictional authority, and generally includes sources that the community can influence or control. The municipal inventory includes GHG emissions that are generated by the services and municipal operations of the local government. For the City, the municipal inventory includes the GHG emissions from Municipal Power Generation by Riverside Public Utilities (RPU).

Table 3.5-2. Global, National, State, and Local GHG Emissions Inventories

Emissions Inventory	CO_2e (metric tons)
2010 IPCC Global GHG Emissions Inventory	49,000,000,000
2019 EPA National GHG Emissions Inventory	6,577,200,000
2018 CARB State GHG Emissions Inventory	425,300,000
2010 City of Riverside GHG Emissions Inventory	-
Community	*2,617,540*
Municipal[1]	*943,466*

Sources: IPCC 2015; EPA 2021; CARB 2020; City of Riverside 2016.
[1] The municipal inventory includes emissions associated with RPU, which provides water and electricity services to the City. Most (91%) of the Municipal inventory is associated with RPU electricity generation (837,170 metric tons of CO_2e) and water transport within the service area boundaries (19,471 metric tons of CO_2e). RPU is included in the municipal inventory and not in the community inventory.

3.5.3 Regulatory Setting

Federal

Under the Obama Administration, the U.S. Environmental Protection Agency (EPA) had been developing GHG regulations under the Clean Air Act (CAA) pursuant to EPA's authority. There have also been settlement agreements among EPA, several states, and nongovernmental organizations to address GHG emissions from electric generating units and refineries, as well as EPA's issuance of an "Endangerment Finding" and a "Cause or Contribute Finding." EPA has also adopted a Mandatory Reporting Rule and Clean Power Plan. Under the Clean Power Plan, EPA issued regulations to control CO_2 emissions from new and existing coal-fired power plants. However, on February 9, 2016, the U.S. Supreme Court issued a stay of these regulations pending litigation. Former EPA Administrator Scott Pruitt signed a measure to repeal the Clean Power Plan in October 2017.

[1]A GHG sink is a process, activity, or mechanism that removes a GHG from the atmosphere.

While there is currently no federal overarching law specifically related to climate change or the reduction of GHG emissions, fuel standards have been adopted to reduce GHG emissions from cars and light-duty trucks and recent amendments have been proposed.

Corporate Average Fuel Economy Standards

As discussed in Section 3.1, *Air Quality*, the Corporate Average Fuel Economy Standards were first enacted in 1975 to improve the average fuel economy of cars and light duty trucks.

On August 2, 2018, the National Highway Traffic Safety Administrative (NHTSA) and EPA proposed to amend the fuel efficiency standards for passenger cars and light trucks and establish new standards covering model years 2021 through 2026 by maintaining the current model year 2020 standards through 2026 (Safer Affordable Fuel-Efficient [SAFE] Vehicles Rule). On September 19, 2019, EPA and NHTSA issued a final action on the One National Program Rule, which is considered Part One of the SAFE Vehicles Rule and a precursor to the proposed fuel efficiency standards. The One National Program Rule enables EPA/NHTSA to provide nationwide uniform fuel economy and GHG vehicle standards, specifically by (1) clarifying that federal law preempts state and local tailpipe GHG standards, (2) affirming NHTSA's statutory authority to set nationally applicable fuel economy standards, and (3) withdrawing California's CAA preemption waiver to set state-specific standards.

EPA and NHTSA published their decisions to withdraw California's waiver and finalize regulatory text related to the preemption on September 27, 2019 (84 *Federal Register* 51310). California, 22 other states, the District of Columbia, and two cities filed suit against Part One of the SAFE Vehicles Rule on September 20, 2019 (*California et al. v. United States Department of Transportation et al*., 1:19-cv-02826, U.S. District Court for the District of Columbia). On October 28, 2019, the Union of Concerned Scientists, Environmental Defense Fund, and other groups filed a protective petition for review after the federal government sought to transfer the suit to the D.C. Circuit (*Union of Concerned Scientists v. National Highway Traffic Safety Administration*). The lawsuit filed by California and others is stayed pending resolution of the petition.

EPA and NHTSA published final rules to amend and establish national CO_2 and fuel economy standards on April 30, 2020 (Part Two of the SAFE Vehicles Rule) (85 *Federal Register* 24174). The revised rule changes the national fuel economy standards for light-duty vehicles from 50.4 to 40.5 miles per gallon in future years. This new rule rolls back California fuel efficiency standards for on-road passenger vehicles. California, 22 other states, and the District of Columbia filed a petition for review of the final rule on May 27, 2020, to challenge this new rule in the court system; it is reasonably foreseeable that the state will be successful in its legal challenges, for the reasons outlined in the state's lawsuit and on the CARB website. Furthermore, on January 20, 2021, President Biden signed an executive order directing the government to revise fuel economy standards with the goal of further reducing emissions. In February 2021, the Biden Administration's Department of Justice also asked courts to put the litigation on hold while the administration "reconsidered the policy decisions of a prior administration." Most recently, on April 22, 2021, the Biden Administration proposed to formally roll back portions of the SAFE Rule, thereby restoring California's right to enforce more stringent fuel efficiency standards.

State

California has adopted statewide legislation to address various aspects of climate change and provide GHG mitigation. Much of this establishes a broad framework for the state's long-term GHG-reduction goals as well as the climate change adaptation program. Governors of California, both former and current, have also issued executive orders (EOs) related to the state's evolving climate change policy. Summaries of the key policies, EOs, regulations, and state legislation relevant to the Project are provided below in chronological order.

Executive Order S-03-05 (2005)

EO S-03-05 was designed to reduce California's GHG emissions to (1) 2000 levels by 2010, (2) 1990 levels by 2020, and (3) 80 percent below 1990 levels by 2050.

Assembly Bill 32—California Global Warming Solutions Act (2006)

Assembly Bill (AB) 32 codified the state's GHG emissions target by requiring California's global warming emissions to be reduced to 1990 levels by 2020. Since being adopted, CARB, the California Energy Commission (CEC), the California Public Utilities Commission, and the California Building Standards Commission have been developing regulations that will help the state meet the goals of AB 32 and EO S-03-05. The AB 32 Scoping Plan, first adopted in 2008, is the state's roadmap for meeting AB 32's reduction target. This initial Scoping Plan for AB 32 identifies specific measures for reducing GHG emissions to 1990 levels by 2020 and requires CARB and other state agencies to develop and enforce regulations and other initiatives to reduce GHG emissions. Specifically, the Scoping Plan articulates a key role for local governments by recommending that they establish GHG emissions reduction goals for both municipal operations and the community that are consistent with those of the state (i.e., approximately 15 percent below current levels) (CARB 2008). CARB approved the *First Update to the Climate Change Scoping Plan* on May 22, 2014 (CARB 2014), which includes both a 2020 element and a post-2020 element. The 2020 element focuses on the state, regional, and local initiatives that were implemented to help the state meet the 2020 goal. The *2017 Climate Change Scoping Plan Update* was adopted in December 2017 and proposes strategies to achieve California's 2030 GHG emissions target. This plan is discussed in further detail under *Senate Bill 32,* below.

Low Carbon Fuel Standard (2007)

With EO S-01-07, Governor Schwarzenegger set forth the low-carbon fuel standard (LCFS) for California in 2007. Under this EO, the carbon intensity of California's transportation fuels is to be reduced by at least 10 percent by 2020. In September 2018, the LCFS regulation was amended to increase the statewide goal to a 20-percent reduction in carbon intensity of California's transportation fuels by 2030.

Senate Bill 375—Sustainable Communities Strategy (2008)

Senate Bill (SB) 375 provides for a new planning process that coordinates land use planning, regional transportation plans (RTPs), and funding priorities, originally in order to help California meet the GHG-reduction goals established in AB 32. SB 375 requires RTPs to incorporate a "sustainable communities strategy" (SCS). The goal of the SCS is to reduce regional vehicle miles traveled (VMT) through land use planning and consequent transportation patterns. SCS measures

include transportation demand management, transportation system management, and pricing. SB 375 also includes provisions for streamlined CEQA review for some infill projects such as transit-oriented development. In 2018, CARB revised the Southern California Association of Governments' (SCAG's) GHG target for per-capita emissions reductions to 8 percent by 2020 and 19 percent by 2035 based on a 2005 baseline.

Senate Bills 1078, 107, and 2 (2011)

SBs 1078 (2002), 107 (2006) and 2 (2011), California's Renewables Portfolio Standard (RPS), obligates investor-owned utilities, publicly owned utilities, energy service providers, and Community Choice Aggregators to procure generation to serve retail sales from eligible renewable sources with the long-range target of procuring 33 percent of retail sales from renewable resources by 2020. The California Public Utilities Commission and California Energy Commission are jointly responsible for implementing the program.

Cap-and-Trade (2011, 2017)

CARB adopted the Cap-and-Trade program in October 2011. The California Cap-and-Trade program is a market-based system with an overall emissions limit for affected emission sources. Affected sources include in-state electricity generators, hydrogen production, petroleum refining, and other large-scale manufacturers and fuel suppliers and distributors. The original Cap-and-Trade program set a compliance schedule through 2020. AB 398 extends the program through 2030 and requires CARB to make refinements, including establishing a price ceiling. Revenue generated from the Cap-and-Trade program are used to fund various programs. AB 398 (2017) established post-2020 funding priorities, to include (1) Air Toxics and Criteria Pollutants, (2) Low and Zero Carbon Transportation, (3) Sustainable Agricultural Practices, (4) Healthy Forests and Urban Greening, (5) Short-lived Climate Pollutants, (6) Climate Adaptation and Resiliency, and (7) Climate and Clean Energy Research.

California Energy Efficiency Standards for Non-Residential Buildings—Green Building Standards Code (2019) and Title 24 Update (2020)

The California Green Building Standards Code (CALGreen) applies to the planning, design, operation, construction, use, and occupancy of newly constructed buildings. It requires the installation of energy- and water-efficient indoor infrastructure for all new projects. CALGreen also requires newly constructed buildings to develop a waste management plan and divert at least 65 percent of the construction materials generated during construction.

Administrative regulations to CALGreen Part 11 and the California Building Energy Efficiency Standards were adopted in 2019 and took effect on January 1, 2020. Part 11 also established standards related to sustainable site development, energy efficiency, water conservation, material conservation, and internal air contaminants.

The 2019 standards take the final step toward achieving zero net energy for newly constructed residential buildings throughout California with requirements such as solar voltaic systems for new homes and encouragement of demand-responsive technologies (e.g., battery storage, heat pump water heaters) to improve energy savings. CEC estimates that the current 2019 standards will result in approximately 30 percent less energy from nonresidential buildings than those designed in compliance with the 2016 standards. These energy savings are due primarily to the required

lighting upgrades with the current standards. Future standards are expected to require zero net energy for newly constructed commercial buildings.

Short-Lived Climate Pollutant Strategy (2013)

SB 1383, adopted in 2013, requires CARB to develop and implement a Short-Lived Climate Pollutant (SLCP) Strategy with the following 2030 goals: 40-percent reduction in CH_4; 40-percent reduction in HFC gases; and 50-percent reduction in anthropogenic black carbon below 2013 levels. Per its directive, CARB adopted the SLCP Strategy, establishing a path to decrease SLCPs from various sectors of the economy. Strategies span from wastewater and landfill practices and CH_4 recovery to reducing natural gas leaks and consumption. The SLCP strategy also identifies measures that can reduce HFC emissions through incentive programs and limitations on the use of high-GWP refrigerants in new refrigeration and air-conditioning equipment.

Senate Bill 350 (2015)

SB 350 (De Leon, also known as the Clean Energy and Pollution Reduction Act of 2015) was approved by the California legislature in September 2015 and signed by Governor Brown in October 2015. Its key provisions call for the following by 2030: (1) achieving an RPS of 50 percent by 2030 and (2) doubling the efficiency of existing buildings.

Senate Bill 32, California Global Warming Solutions Act of 2006: Emissions Limit; and Assembly Bill 197, State Air Resources Board, Greenhouse Gases, Regulations (2016)

SB 32 (Pavley) requires CARB to ensure that statewide GHG emissions will be reduced to at least 40 percent below the 1990 level by 2030, consistent with the target set forth in EO B-30-15. AB 197 requires formation of the Joint Legislative Committee on Climate Change Policies; requires CARB to prioritize direct emissions reductions from stationary sources, mobile sources, and other sources and consider social costs when adopting regulations to reduce GHG emissions beyond the 2020 statewide limit; requires CARB to prepare reports on sources of GHGs, criteria air pollutants, and toxic air contaminants; establishes 6-year terms for voting members of CARB; and adds two legislators as non-voting members of CARB. Both bills were signed by Governor Brown in September 2016.

CARB approved the 2017 Climate Change Scoping Plan Update in December 2017 to build on the programs set in place as part of the previous Scoping Plan, which was drafted to meet the 2020 reduction targets of AB 32. The 2017 Scoping Plan proposes meeting the 2030 goal by accelerating the focus on zero and near-zero technologies for moving freight; continuing investment in renewables; relying on greater use of low-carbon fuels, including hydrogen; implementing stronger efforts to reduce emissions of SLCPs (e.g., CH_4, black carbon, fluorinated gases); overseeing further efforts to create walkable communities with expanded mass transit and other alternatives to traveling by car; continuing the Cap-and-Trade program; and ensuring that natural lands become carbon sinks to provide additional emissions reductions and flexibility in meeting the target. The Scoping Plan update also recommends that local governments achieve community-wide efficiency through the use of targets that call for 6 metric tons of CO_2e ($MTCO_2e$) per capita by 2030 and 2 $MTCO_2e$ per capita by 2050, targets that can be used in local climate action planning. These efficiency targets would replace the “15 percent below 2008 levels by 2020” approach recommended in the initial Scoping Plan.

Senate Bill 100 (2018)

SB 100 (De León), also known as the California Renewables Portfolio Standard Program: Emissions of Greenhouse Gases, was approved by the California Legislature and signed by Governor Brown in September 2018. The bill increases the RPS in 2030 from 50 to 60 percent and establishes an RPS goal of 100 percent by 2045.

Executive Order B-55-18 (2018)

EO B-55-18 was approved by the California Legislature and signed by Governor Brown in September 2018. The order establishes a statewide goal that calls for achieving carbon neutrality by no later than 2045 as well as achieving and maintaining net negative emissions thereafter. Although this EO has not been codified in law, it directs CARB to ensure that future climate change Scoping Plans identify and recommend measures for achieving the carbon neutrality goal.

Regional

South Coast Air Quality Management District

As discussed in Section 3.1, *Air Quality*, the South Coast Air Quality Management District (SCAQMD) has primary responsibility for development and implementation of rules and regulations to attain the National Ambient Air Quality Standards and California Ambient Air Quality Standards as well as permitting new or modified sources, developing air quality management plans, and adopting and enforcing air pollution regulations within the South Coast Air Basin. CARB's Scoping Plans do not provide an explicit role for local air districts with respect to implementing the reduction goals of SB 32 and AB 32, but CARB does state that it will work actively with air districts in coordinating emissions reporting, encouraging and coordinating GHG reductions, and providing technical assistance in quantifying reductions. The ability of air districts to control emissions (both criteria pollutants and GHGs) is provided primarily through permitting but also through their role as a CEQA lead or commenting agency, the establishment of CEQA thresholds, and the development of analytical requirements for CEQA documents.

On December 5, 2008, the SCAQMD Governing Board considered draft GHG guidance and adopted a staff proposal for an interim GHG significance threshold of 10,000 $MTCO_2e$ per year for industrial permitting projects where SCAQMD is the lead agency. The board letter, resolution, interim GHG significance threshold, draft guidance document, and attachments can be found under Board Agenda Item 31 of the December 5, 2008, Governing Board Meeting Agenda (SCAQMD 2008). In its draft guidance document, SCAQMD included evidence and rationale for developing thresholds, specifically citing State CEQA Guidelines §15064.7(a) ("each public agency is encouraged to develop and publish thresholds of significance that the agency uses in the determination of the significance of environmental effects") and Subsection (b) ("Thresholds of significance to be adopted for general use as part of the lead agency's environmental review process must be adopted by ordinance, resolution, rule or regulation, and developed through a public review process and be supported by substantial evidence"). SCAQMD developed thresholds for both stationary sources and land use development projects. SCAQMD's recommended GHG significance threshold underwent a public review process as part of stakeholder working group meetings that were open to the public. The draft guidance document provides the supporting analysis and methodology for developing the GHG significance thresholds for both stationary sources and land use development projects. After completion of the public process, the proposed interim thresholds for land use development

projects were brought to the SCAQMD Governing Board but were not formally adopted, while the threshold involving industrial permitting projects where SCAQMD is lead agency was adopted.

For industrial processes, SCAQMD has formally adopted a 10,000 $MTCO_2e$ threshold for industrial (permitted) facilities where SCAQMD is the lead agency. This industrial source threshold is not appropriate for use on the Project because it is not associated with industrial processes.

SCAQMD noted that the proposed interim GHG significance thresholds for evaluation of land use development projects was only a recommendation for lead agencies and not a mandatory requirement. The GHG significance threshold may be used at the discretion of the local lead agency. The draft GHG guidance identified a tiered approach for determining the significance of GHG emissions, one of which included the use of numerical screening thresholds. With respect to numerical GHG significance thresholds, SCAQMD proposed two different approaches to be taken by lead agencies when analyzing GHG emissions:

- Option #1 includes using separate numerical thresholds for residential projects (3,500 $MTCO_2e$/year), commercial projects (1,400 $MTCO_2e$/year), and mixed-use projects (3,000 $MTCO_2e$/year).
- Option #2 is use of a single numerical threshold for all non-industrial projects of 3,000 $MTCO_2e$/year. SCAQMD's most recent recommendation per its September 2010 meeting minutes is to use option #2 (SCAQMD 2010).

However, these numerical thresholds have not been formally adopted by SCAQMD.

Southern California Association of Governments' 2020–2045 Regional Transportation Plan/Sustainable Communities Strategy

SCAG is a council of governments representing Imperial, Los Angeles, Orange, Riverside, San Bernardino, and Ventura Counties. SCAG is the federally recognized metropolitan planning organization for this region, which encompasses over 38,000 square miles. SCAG is a regional planning agency and a forum for addressing regional issues concerning transportation, the economy, community development, and the environment.

On May 7, 2020, SCAG's Regional Council adopted the 2020–2045 RTP/SCS (also known as *Connect SoCal*) for federal transportation conformity purposes only. On September 3, 2020, the Regional Council of SCAG formally adopted the 2020–2045 RTP/SCS in its entirety and for all other purposes. The 2020–2045 RTP/SCS is a long-range visioning plan that balances future mobility and housing needs with economic, environmental, and public health goals. The 2020–2045 RTP/SCS charts a course for closely integrating land use and transportation so that the region can grow smartly and sustainably.

The 2020–2045 RTP/SCS is consistent with SB 375, which requires SCAG to adopt an SCS that outlines policies to reduce per-service-population GHG emissions from automobiles and light-duty trucks. SCAG's current target is to reduce per-capita GHG emissions from passenger vehicles by approximately 8 percent by 2020 and 19 percent by 2035 over base year 2005 (CARB 2020). The 2020–2045 RTP/SCS states that the region will meet the SB 375 per-capita targets. While this plan was released in 2020, the same year as the first target date, the achievement is based on modeled results, as observed data are not yet available.

The SCS presents strategies and tools that are consistent with local jurisdictions' land use policies and incorporates best practices for achieving the state-mandated reductions in GHG emissions at the regional level through reduced per-capita VMT. The SCS strategies included in the 2020–2045 RTP/ SCS to reduce GHG emissions consist of focusing growth near destinations and mobility options, promoting diverse housing choices, leveraging technology innovations, supporting implementation of sustainability policies, and promoting a green region.

Local

Local plans that include policies or measures relevant to GHG emissions from implementation of the Project include *Riverside General Plan 2025* (GP 2025) and the City's *Economic Prosperity Action Plan and Climate Action Plan* (CAP).

Riverside General Plan 2025

The City's Air Quality Element is a planning tool for protecting the public's health and welfare. GP 2025 was adopted in November 2007 and includes policies that are relevant to the reduction of GHG emissions in its Air Quality Element (City of Riverside 2007a). These relevant policies are summarized in Table 3.5-4.

City of Riverside Economic Prosperity Action Plan and Climate Action Plan

The City adopted its CAP in January 2016. The CAP includes an inventory of existing (2007) emissions from community-wide operations, which includes residents and businesses within the City, as well as emissions from governmental operations. The CAP also provides community-wide and government operations emissions forecasts for 2020 and 2035 based on growth associated with build-out of GP 2025. The CAP establishes a reduction goal of approximately 26 percent below 2007 baseline emission levels (3,024,066 $MTCO_2e$ community-wide, and 122,525 $MTCO_2e$ for government operations) by 2020 to reach the goals set forth in AB 32 (1990 levels by 2020). While the City's CAP is not a qualified reduction plan as defined by the State CEQA Guidelines, it does propose measures and policies on community-wide and government levels that will support the City's reduction goals.

Community sources within the City that generate GHG emissions include residential energy use, commercial/industrial energy use, fuel use from transportation, and CH_4 generation from solid waste decomposition. Municipal sources of GHG emissions in the City include fuel use from employee commutes and the City's vehicle fleet, energy use in government buildings and facilities, CH_4 generation from government-related solid waste, energy use for public lighting, and energy use for potable water and sewage treatment. The City also owns and operates RPU, which provides electric and water utility services. The electric utility serves almost all City properties and the water utility serves approximately two-thirds of the City. Note that emissions from RPU are included in the municipal inventory and are not included in the community inventory. The development that could occur as a result of the Project would involve construction and operation of residential housing and nonresidential uses, which are community uses. Therefore, GHG emissions related to construction and operation of the Project would be part of the community emissions inventory and would be subject to the community emission targets and measures proposed by the City's CAP.

The CAP's 2020 projections and reduction targets are based on the growth projections associated with build-out of GP 2025. Table 3.5-3 provides the CAP's 2007 community-wide baseline, projected future year (2020 and 2035) business-as-usual GHG emissions, and the future year GHG emission

target for 2020 (1990 levels). While the City pledges to "strive to achieve additional reductions in GHG emissions by 2030," no formal reduction target for 2030 was established in the 2016 CAP because the statewide targets for 2030 had not yet been adopted.

Table 3.5-3. City of Riverside Existing and Forecasted Community-Wide GHG Emissions by Sector ($MTCO_2e$ per year)

Sector	2010 Existing	2020 Business-as-Usual Forecast
Residential Energy	481,903	543,134
Commercial/Industrial Energy	722,321	809,594
On-Road Transportation	1,358,647	1,590,544
Solid Waste	54,669	60,939
Total Emissions	**2,617,540**	**3,004,212**
2020 Target	**—**	**2,224,908**

Source: City of Riverside 2016.

To achieve the proposed reductions, the City's CAP includes various reduction measures related to energy efficiency, use of renewable energy sources, increased transit, use of alternative fuels, increased reuse and recycling, and reduction in potable water consumption. The policies from the City's CAP that are relevant to GHG emissions from implementation of the Project are outlined in Table 3.5-4.

Table 3.5-4. Relevant Riverside General Plan, CAP, and Specific Plan Policies

Plan	Policy
Riverside General Plan 2025	
Air Quality Element	Policy AQ-1.5: Encourage infill development projects within urbanized areas, which include job centers and transportation nodes.
	Policy AQ-1.6: Provide a mechanism to create opportunities for mixed- use development that allows the integration of retail, office, institutional and residential uses for the purpose of reducing costs of infrastructure construction and maximizing the use of land.
	Policy AQ-1.7: Support appropriate planned residential developments and infill housing, which reduce vehicle trips.
	Policy AQ-1.15: Establish land use patterns that reduce the number and length of motor vehicle trips and promote alternative modes of travel.
	Policy AQ-1.18: New residential subdivisions shall be designed to encourage "walkable" neighborhoods with pedestrian walkways and bicycle paths to facilitate pedestrian travel.
	Policy AQ-1.23: Increase residential and commercial densities around rail and bus transit stations.
	Policy AQ-2.4: Monitor and strive to achieve performance goals and/or VMT reduction which are consistent with SCAG's goals.
	Policy AQ-2.7: Use incentives, regulations and Transportation Demand Management in cooperation with surrounding jurisdictions to eliminate vehicle trips that would otherwise be made.
	Policy AQ-5.1: Utilize source reduction, recycling and other appropriate measures to reduce the amount of solid waste disposed of in landfills.

Plan	Policy
	Policy AQ-5.3: Continue and expand use of renewable energy resources such as wind, solar, water, landfill gas, and geothermal sources.
	Policy AQ-5.6: Support the use of automated equipment for conditioned facilities to control heating and air conditioning.
	Policy AQ-5.7: Require residential building construction to meet or exceed energy use guidelines in Title 24 of the California Administrative Code.
	Policy AQ-8.23: Apply urban planning principles that encourage higher density, mixed use, walkable/bikeable neighborhoods, and coordinate land use and transportation with open space systems in 2008.
City of Riverside Climate Action Plan (2016)	
State and Regional Measures	SR-1: Utilities must secure 33% of their power from renewable sources by 2020 (through 2035)
	SR-2: Mandatory energy efficiency standards for buildings.
	SR-3: Financing for homeowners to make energy efficient, renewable energy, and water conservation improvements.
	SR-4: Financing for business owners to make energy efficient, renewable energy, and water conservation improvements.
	SR-6: Requirements for vehicles to use cleaner fuels.
	SR-12: Facilitate electric vehicle use by providing necessary infrastructure.
	SR-13: Meet mandatory requirement to divert 50% of C&D waste from landfills by 2020 and exceed requirement by diverting 90% of C&D waste from landfills by 2035.
Energy	E-1: Replace traffic and streetlights with high-efficiency bulbs.
	E-2: Strategically plant trees at new residential developments to reduce the urban heat island effect.
	E-3: Financing and incentives for business and homeowners to make energy efficient, renewable energy, and water conservation improvements.
	E-4: Large scale renewable energy installation on publicly owned property and in public rights of way.
Transportation	T-1: Expand on-street and off-street bicycle infrastructure, including bicycle lanes and bicycle trails.
	T-2: Provide additional options for bicycle parking.
	T-3: Encourage use of non-motorized transportation modes by providing appropriate facilities and amenities for commuters.
	T-4: Encourage Transportation Demand Management strategies.
	T-5: Incorporate technology to synchronize and coordinate traffic signals along local arterials.
	T-6: Improve jobs-housing balance and reduce vehicle miles traveled by increasing household and employment densities.
	T-7: Provide for a variety of development types and uses.
	T-8: Encourage walking by providing pedestrian-only community areas.
	T-9: Reduce requirements for vehicle parking in new development projects.
	T-10: Implement bus rapid transit service in the subregion to provide alternative transportation options.
	T-11: Encourage employers to create TDM programs for their employers.

Plan	Policy
	T-12: Accelerate the implementation of all or specified components of a jurisdiction's adopted bike plan. T-14: Implement development requirements to accommodate Neighborhood Electric Vehicles and supporting infrastructure. T-15: Increase access to transit by providing free or reduced passes. T-16: Create nodes offering bike sharing at key locations throughout the City. T-17: Offer Riverside residents the opportunity to use car sharing to satisfy short-term mobility needs. T-18: Use SB 743 to incentivize development in the downtown and other areas served by transit. T-19: Promote the use of alternative fueled vehicles such as those powered by electric, natural gas, biodiesel, and fuel cells by Riverside residents and workers. T-20: Create a geographically defined area(s) featuring best practices in sustainable urban design and green building focused on supporting both clean-tech and green businesses.
Water	W-1: Reduce per capita water use by 20% by 2020.
Solid Waste	SW-1: Provide green waste collection bins community-wide. SW-2: Divert food and paper waste from landfills by implementing commercial and residential collection program.
Specific Plans	
Canyon Springs Business Park Specific Plan	There are no applicable policies relevant to the Project regarding GHG emissions.
Downtown Specific Plan	There are no applicable policies relevant to the Project regarding GHG emissions.
Hunter Business Park Specific Plan	There are no applicable policies relevant to the Project regarding GHG emissions.
La Sierra University Specific Plan	Policy LSU-2.3 As the Specific Plan and its Environmental Impact Report addresses in a comprehensive fashion issues such as land use, traffic, noise, hydrology, earth, air quality, biological resources, public services, cultural resources, aesthetics, infrastructure and grading, a Conditional Use Permit shall not be required for development of uses on the La Sierra University campus which are described in this Specific Plan. Plot plan review by the Planning Commission will be required for significant alteration, expansion and new construction in Subareas 1 and 2. Environmental Impact Report Mitigation Monitoring Program Require that contractors: • Use low emission on-site mobile construction equipment. • Maintain equipment in tune, per manufacturer's specifications. • Use catalytic converters on gasoline powered equipment. • Retard diesel engine injection timing by four degrees. • Use reformulated, low emission diesel fuel. • Substitute electric and gasoline powered equipment for diesel powered equipment where feasible. • Where applicable, do not leave equipment idling for prolonged periods. • Curtail (cease or reduce) construction during periods of high ambient pollutant concentrations (i.e., Stage 2 smog alerts).

Plan	Policy
	• Configure construction parking to minimize traffic interference. • Provide temporary traffic control during all phases of construction activities to improve traffic flow (e.g., flag person).
Magnolia Avenue Specific Plan	There are no applicable policies relevant to the Project regarding GHG emissions.
Riverside Marketplace Specific Plan	There are no applicable policies relevant to the Project regarding GHG emissions.
University Avenue Specific Plan	There are no applicable policies relevant to the Project regarding GHG emissions.

Sources: City of Riverside 1991, 2002, 2005, 2007a, 2007b, 2009, 2016, 2017a, 2017b.

Policy Consistency

The Project would be generally consistent with GP 2025 goals and policies as described in Table 3.5-4. As discussed in Chapter 2, *Project Description*, one of the main objectives of the Project is to locate new housing in areas readily accessible to services, parks and other amenities, transit, jobs, and activity centers. The Housing Element Update includes a guiding principle that seeks to equitably distribute a mix of housing types, including ownership and rental, that is safe and affordable for people of all income levels, backgrounds, and ages and that meets the needs of current and future Riverside residents.

The principles, policies, implementing actions, and programs within the Housing Element and Public Safety Element Updates relate directly to and must be consistent with other elements of GP 2025. As the Project comprises Phase 1 of a comprehensive update of GP 2025, the principles, policies, implementing actions, and programs of the Housing Element and Public Safety Element will serve as a platform for developing updates of the remaining GP 2025 elements in the forthcoming Phase 2 update. The Project may result in development that may be inconsistent with City policies relating to GHG emissions in the Air Quality Element and CAP (City of Riverside 2007a, 2016), as described in Table 3.5-4. Implementation of Mitigation Measures **MM-GHG-1** through **MM-GHG-3** would help to address policy inconsistencies. These measures require future development projects enabled by the Project to implement emissions-reducing measures during construction and operation.

3.5.4 Methodology and Thresholds of Significance

Methods for Analysis

GHG impacts associated with construction and operation of the Project were assessed and quantified using industry standard and accepted software tools, techniques, and emission factors. A summary of the methodology is provided below. A full list of assumptions and emission calculations can be found in Appendix C. The methodology used to estimate air pollutant emissions discussed below is the same that was used to estimate GHG emissions, as described in Section 3.1, *Air Quality*, with the exception of electricity-, water-, wastewater-, and solid waste-related emissions.

Construction

The 31,564 dwelling units and approximately 3,181,930 square feet of nonresidential uses to be facilitated by the general plan land use changes that could be developed over the 8-year

implementation period of the Project would generate construction-related emissions of CO_2, CH_4, and N_2O that could result in impacts on climate change. The Project would facilitate demolition of up to 389 existing dwelling units and 1,748,470 existing square feet of nonresidential development. Land uses that could be developed under the Project would generate construction-related emissions from mobile and stationary construction equipment exhaust, and employee and haul truck vehicle exhaust. However, the specific size, location, and construction techniques and scheduling that would be used for each individual development project occurring in the City from implementation of the Project are not currently known. With a horizon year of 2029, development of the various land uses associated with the Project would occur over an extended period and would depend on factors such as local economic conditions, market demand, and other financing considerations. As such, without specific project-level details, it is not possible to develop a refined construction inventory.[2]

Consequently, the determination of construction GHG impacts for each individual development project, or a combination of these projects, would require the City to speculate regarding such potential future project-level environmental impacts. Therefore, in the absence of the necessary construction information required to provide an informative and meaningful analysis, the evaluation of potential construction-related impacts resulting from implementation of the Project is conducted qualitatively. The analysis discusses the potential for future individual developments in the City to generate construction emissions that, where necessary, would apply mitigation measures to reduce those emissions.

Operation

Build-out of the Project would result in a change in emissions relative to the development proposed in GP 2025. Operation of the potential 31,564 dwelling units and approximately 3,181,930 square feet of nonresidential uses would generate emissions of CO_2, CH_4, and N_2O that could result in impacts on climate change. Operational emissions would result from motor vehicle travel, onsite combustion of natural gas for space and water heating, landscaping equipment, water consumption, waste generation, and use of electricity.

Given that the Project proposes rezoning of land throughout the City to fulfill the City's development goals and obligations, the operational emissions analysis accounts for the net change in emissions from GP 2025. The land use changes and proposed land use assumptions are outlined in Table 3.5-5. Land uses proposed by the Project would facilitate up to 31,564 dwelling units and 3,181,930 square feet of nonresidential development; however, as existing dwelling units and nonresidential development are removed, the land use change would involve 31,175 dwelling units and 1,433,460 square feet of nonresidential development over existing conditions. Energy-, water-, waste-, and wastewater-related emissions for these land uses were estimated using CalEEMod, version 2016.3.2. To account for emissions reductions associated with the 2019 California Administrative Code Title 24 Building Efficiency Standards, adjustments were made to CalEEMod default assumptions. For nonresidential buildings, the 2019 Title 24 standards reduce energy use by approximately 30 percent compared to the 2016 title 24 standards. Residential uses incorporating the 2019 Title 24 standards would have a higher reduction of 53 percent less energy use compared to 2016 Title 24 standards. These reductions are due to design efficiencies, light-emitting diode lighting, and

[2] Project-level information includes details such as the size and scale of the project to be constructed, construction schedule, equipment fleet, construction worker crew estimates, and demolition and grading quantities.

mandatory rooftop solar electricity generation (CEC 2020). Electricity emission rates for existing and horizon years are based on RPU's *2018 Integrated Resource Plan* (City of Riverside 2018).

Table 3.5-5. Land Use Changes with Implementation of the Project

Land Use Type	Amount
Land Uses Removed from General Plan	
Housing	-389 dwelling units
Non-Residential	-1,748,470 square feet
Land Uses Proposed for General Plan	
Housing	31,564 dwelling units
Non-Residential	3,181,930 square feet
Net Land Use Development	
Housing	31,175 dwelling units
Non-Residential	1,433,460 square feet

Source: Data provided by Fehr & Peers 2021.

GHG impacts from motor vehicles associated with the Project were evaluated using CARB's Emission Factor (EMFAC2021) emissions model. The mobile source emission factors (grams per mile and grams per trip) were averaged in EMFAC2021 based on all vehicle and fuel types at aggregated speeds for the vehicle fleet operating within the South Coast Air Basin at both the existing year of 2021 and at the full build year of 2029. The emission factors were applied to the Project-specific VMT estimates outlined in Table 3.5-6 to generate mobile source emission estimates. Refer to Appendix C for additional information on the assumptions and model data used to estimate the Project's potential future operational emissions.

Table 3.5-6. VMT Changes with Implementation of the Project

General Plan Build-Out Scenario	VMT
Existing Conditions	12,311,159
Future Project Conditions	13,985,353
Net VMT	*1,674,194*

Source: Data provided by Fehr & Peers 2021.

Thresholds of Significance

State CEQA Guidelines

In accordance with Appendix G of the State CEQA Guidelines, the Project would be considered to have a significant effect if it would:

- Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment
- Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases

The State CEQA Guidelines do not indicate what amount of GHG emissions would constitute a significant impact on the environment. Instead, they authorize the lead agency to consider

thresholds of significance previously adopted or recommended by other public agencies or by experts, provided the decision of the lead agency to adopt such thresholds is supported by substantial evidence (State CEQA Guidelines Sections 15064.4(a) and 15064.7(c)). CEQA offers two paths to evaluating GHG emissions impacts in CEQA documents:

1. Projects can tier off a "qualified" GHG-reduction plan (State CEQA Guidelines Section 15183.5).
2. Projects can determine significance by using a model to calculate GHG emissions and assess their significance (State CEQA Guidelines Section 15064.4).

CEQA promotes the tiering or streamlining of environmental review from previously adopted programmatic documents. According to the California Governor's Office of Planning and Research OPR), the California Legislature has made it clear that lead agencies should tier or streamline their environmental documents whenever feasible, and that GHG emissions resulting from individual projects may be best analyzed and mitigated at a programmatic level through a GHG emission-reduction plan, such as a climate action plan (OPR 2018). A GHG-reduction plan that is consistent with the criteria established under State CEQA Guidelines Sections 15183.5 (b) and 15064.4 is considered "qualified" for tiering, and later project-specific environmental documents may tier from and/or incorporate by reference the GHG plan in question.

As discussed under the *Local* subsection of Section 3.5.3, *Regulatory Setting*, the City adopted a CAP in 2016. Although it includes an emissions inventory and forecast and strategies to reduce GHG emissions in the various sectors, no CEQA analysis was completed for the City's CAP. Therefore, the CAP is not a CEQA-qualified document as defined by Sections 15183.5(b) and 15064.4 of the State CEQA Guidelines. In this case, tiering from the CAP is not an appropriate threshold approach for the Project's GHG impact analysis.

In the absence of a CEQA-qualified GHG-reduction plan, significance of GHG emissions resulting from the Project can be determined by quantifying emissions and assessing with an appropriate numerical threshold. One such threshold is an efficiency-based threshold, which allows lead agencies to compare projects of various types, sizes, and locations equally, and determine whether a project is consistent with the state's reduction goals. Efficiency-based thresholds for a residential project can be expressed on a per-capita basis, for an office project on a per-employee basis, or for a mixed-use project, like the Project analyzed herein, on a per-service-population (the sum of jobs and residents) basis.

As discussed in Section 3.5.3, *Regulatory Setting, Regional*, SCAQMD has proposed use of efficiency thresholds in conjunction with AB 32 and the statewide 2020 GHG-reduction goals. However, at present, SCAQMD has not formally adopted any GHG efficiency thresholds for land use development projects or for addressing consistency with post-2020 statewide GHG-reduction goals. Given that the Project would be implemented post-2020, with a horizon year of 2029, a numerical threshold that aligns with the state's 2030 reduction target is the most appropriate approach for assessing the significance of the Project's GHG emissions. In the absence of an SCAQMD- or City-defined threshold, an efficiency metric pursuant the 2030 SB 32 reduction target can be developed based on best available emissions and population forecast data for the City. Development and use of this efficiency threshold are discussed in further detail in the following section.

Threshold Approach

Overview

The build-out year for the Housing Element and Public Safety Element Updates is 2029, which is 1 year prior to the statewide 2030 milestone target adopted in SB 32. This precedes the statewide milestone target in EO S-03-05 for 2050 and the statewide goal for carbon neutrality in EO B-55-18 for 2045. The more aggressive 2045 goal of EO B-55-18 indicates the state's intent (and, thus, state of the science) to move toward carbon neutrality.

The Project includes the adoption and implementation of the Housing Element Update for the 2021–2029 planning period, adoption and implementation of the Public Safety Element Update, development of Environmental Justice Policies, and updates to the Zoning Code and Specific Plans to address requirements of the 6th Regional Housing Needs Assessment (RHNA) cycle. As discussed previously, recent case law directs GHG analyses to tailor threshold concepts to the specifics of a project and that project's uses. In this situation, implementation of the Project could result in additional mixed-used and multi-family development including an increase of 31,175 new dwelling units over existing conditions and 31,564 total dwelling units proposed by the Project.

Based on the available concepts recommended by expert agencies, the threshold approach to evaluate significance of impacts associated with GHG emissions resulting from implementation of the Project is both quantitative and qualitative in nature. The quantitative portion of the analysis includes quantification of emissions from all Project components and assesses consistency with numerical reduction targets. The qualitative portion of the analysis assesses the Project's compliance with plans, polices, measures, and regulatory programs outlined, adopted, or proposed by all relevant agencies, including the City, CARB, and other California agencies. These two approaches are discussed in further detail below.

Consistency with Numerical Thresholds. The efficiency targets used in this analysis are based on the level of reductions and overall efficiency required to meet the 2030 reduction target (SB 32) using the emissions targets estimated in the City's CAP, and development projections from SCAG population growth forecast data for the City (City of Riverside 2016; SCAG 2016). The City's CAP includes an inventory of GHG emissions for the baseline year (2007) and the 2020 and 2035 business-as-usual conditions. The CAP also identifies the 2020 GHG-reduction target (1990 levels) of 2,224,908 $MTCO_2e$.

The CAP does not include a reduction target for 2030, but using the data in the CAP, a target can be estimated. Pursuant to SB 32, the relevant statewide target for the reduction of GHG emissions is the 2030 (40 percent below 1990 levels) reduction target, which for the City is estimated to be 1,334,945 $MTCO_2e$ based on a 40-percent reduction from the 2020 GHG-reduction target (1990 levels) of 2,224,908 $MTCO_2e$. The reduction target for the Project's horizon year of 2029 was estimated by interpolating between the 2020 and 2030 targets. Based on this, to achieve the fair share toward the 2030 target in horizon year 2029, the Project would need to achieve an emissions efficiency to 2.7 $MTCO_2e$ per service population ($MTCO_2e$/SP). Table 3.5-7 summarizes the development of the 2029 reduction target used in the quantitative analysis. All population forecast data were obtained from the SCAG *Demographics and Growth Forecast Appendix* of the 2016 RTP/SCS for consistency with data used for development of the inventory, forecast, and targets presented in the City's CAP (SCAG 2016; City of Riverside 2016).

If the Project achieves the efficiency targets for 2029, then impacts would be considered less than significant. Conversely, if the Project exceeds the efficiency target in 2029, then the Project's cumulative contribution of GHG emissions would be considered significant and feasible mitigation measures would be required.

Table 3.5-7. GHG-Reduction Targets and Efficiency Metrics

Year	GHG Emissions Target ($MTCO_2e$)	Service Population (residents + employees)[1]	Efficiency Metric ($MTCO_2e$/SP)
2020 Target	2,224,908	475,386	4.7
2029 (Project Horizon Year)	**1,423,941**	525,657	**2.7**
2030 Target (SB 32)	1,334,945	531,243	2.5

Source: Population and employment data provided by Fehr & Peers.
Analysis targets are in **bold**.
[1] Population data obtained from SCAG 2016, to be consistent with the 2016 CAP.

Compliance with Applicable Local Plans and Statewide Regulatory Programs. Recent guidance on GHG-reduction strategies and thresholds for operational emissions have been provided at the state level through the 2017 Scoping Plan, OPR, and CARB. The 2017 Scoping Plan outlines the framework and strategies the state will take to achieve the 2030 emission-reduction targets established by SB 32. The 2017 Scoping Plan update proposes to meet the 2030 goal by accelerating the focus on zero and near-zero technologies for moving freight, continued investment in renewables, greater use of low-carbon fuels including electricity and hydrogen, stronger efforts to reduce emissions of SLCPs, further efforts to create walkable communities with expanded mass transit and other alternatives to traveling by car, continuing the Cap-and-Trade program, and ensuring that natural lands become carbon sinks to provide additional emissions reductions and flexibility in meeting the target (CARB 2017). Furthermore, OPR guidance specifies that a "land use development project that produces low VMT, achieves applicable building energy-efficiency standards, uses no natural gas or other fossil fuels, and includes Energy Star appliances where available, may be able to demonstrate a less-than-significant greenhouse gas impact associated with project operation" (OPR 2018).

As discussed above, the City's CAP has not undergone CEQA analysis and is therefore not a qualified reduction plan as defined by the State CEQA Guidelines. Additionally, because the City's 2016 CAP was adopted prior to the passing of SB 32 and the development of the associated 2017 Scoping Plan, the measures and strategies contained in the 2016 CAP do not comply, let alone exceed, the regulations designed to reach the statewide reduction target of 40 percent below 1990 levels by 2030. Therefore, compliance with this document is not appropriate for this analysis. A citywide CAP to address the statewide GHG reduction targets of SB 32 is forthcoming, but not currently available. Accordingly, the Project's compliance with regulatory programs adopted by CARB and other state agencies, is used to evaluate the significance of the Project's GHG emissions. The Project has a build-out year of 2029, consistent with the 2017 Scoping Plan, which addresses emissions through 2030.

If the Project implements regulatory programs adopted by CARB or other state agencies to reduce GHG emissions and results in GHG emissions below the calculated efficiency threshold for horizon year 2029, then the Project's cumulative contribution of emissions would be considered less than significant. Conversely, if the Project does not implement one or more regulatory programs adopted by CARB or other state agencies to reduce GHG emissions, or exceeds the efficiency threshold, then

the Project's cumulative contribution of GHG emissions would be considered significant and feasible mitigation measures are required.

3.5.5 Impacts and Mitigation Measures

Impact GHG-1: The Project would generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment. This impact would be significant and unavoidable with implementation of mitigation.

Housing Element Update, Zoning Code Amendments, and Environmental Justice Policies

Construction

Construction of new residential and nonresidential development associated with the Project would occur intermittently throughout the City over the course of the build-out period (through horizon year 2029). Construction of the Project would result in direct GHG emissions generated by vehicle trips (i.e., trips by construction workers and haul trucks) and operation of construction equipment. Indirect GHG emissions would be generated by the electricity used to power any electric construction equipment, mobile offices, or water delivered to construction sites. As the timing and intensity of future development projects are not known at this time, the precise effects of construction activities associated with build-out of the Project cannot be accurately quantified at this time. In general, the emissions intensity of construction vehicles and equipment would decrease over time as the construction industry shifts toward implementation of cleaner fuels (i.e., electrified equipment) and more efficient technology, particularly for trucks.

While the details of future development within the City are currently unknown because development would be driven by market forces and private applicants, it is known that implementation of the Project ultimately would result in more development than previously assumed in GP 2025 (see Table 3.5-4). With implementation of the Project, up to 31,175 additional dwelling units and 1,433,460 square feet of nonresidential uses could be developed above what was previously assumed. Construction of a multitude of individual development projects that could occur within the City throughout the build-out period could generate GHG emissions that could have a significant impact on the environment (Impact-GHG-1). The Project would implement Mitigation Measure **MM-GHG-1** to reduce emissions resulting from future construction-related activities due to the development of the new residential and nonresidential land uses allowable under the Project.

Implementation of Mitigation Measure **MM-GHG-1** would help reduce GHG emissions from construction-related activities to the extent feasible. However, construction time frames and equipment for site-specific development projects are not available at this time, and there is potential for implementation of the Project to result in significant construction-related GHG emissions. The City would need to consider all future development accommodated by the Project, where subject to CEQA and requiring discretionary approval, to ascertain whether an individual development would generate potentially significant GHG emission impacts during construction, and, where necessary, would require the implementation of additional mitigation measures to minimize GHG emissions and reduce potentially significant impacts. Therefore, despite adherence to Mitigation Measure **MM-GHG-1**, this impact as it pertains to the Project would remain significant and unavoidable.

Operations

As discussed previously, operation of the Project would result in emissions from changes in travel patterns and VMT in the transportation network, as well as from onsite combustion of natural gas for space and water heating, water consumption, waste generation, landscaping equipment, and use of electricity. Full build-out of the Project, which could include up to 31,564 housing units and 3,181,930 square feet of nonresidential uses beyond what is planned in GP 2025 (refer to Table 3.5-5 for more information regarding build-out capacity), could result in an increase in service population of up to 104,328 new individuals (sum of residents and employees) within the City. Table 3.5-8 summarizes estimated operational emissions at full build-out and summarizes the estimated emissions on a per-service-population basis in 2029.

Table 3.5-8. Operational GHG Emissions in 2029 ($MTCO_2e$)

Source	$MTCO_2e$	Percent of Total Emissions
Area	413	<1%
Energy	40,976	17%
Mobile	182,642	76%
Waste	6,732	3%
Water	8,102	3%
Total	**238,864**	**100%**
Proposed Project Service Population	104,328[1]	-
Efficiency ($MTCO_2e$/SP)	2.3	-
Efficiency threshold ($MTCO_2e$/SP)	2.7	-
Exceed threshold?	*No*	-

Source: Modeling outputs provided in Appendix C.
[1] Population and employment data provided by traffic consultant (Fehr & Peers 2021). 104,328 is based on the sum of population (101,008) and employment (3,320).

As shown in Table 3.5-8, Project emissions would result in 2.3 $MTCO_2e$/SP relative to the 2.7 $MTCO_2e$/SP threshold. As discussed above in *Threshold Approach*, this threshold was developed using best available data from the City's 2016 CAP and SCAG population data, in the absence of an appropriate reduction target for 2030. Mitigation measures, discussed below, would ensure the Project would generally comply with the City's CAP and other plans, policies, and regulatory programs outlined at the local, regional, and state levels for the purpose of reducing the emissions of GHGs. However, because the City has not adopted a CAP that meets the statewide GHG goal established by SB 32 for 2030 and the statewide goal for carbon neutrality in EO B-55-18 for 2045, it cannot be stated with certainty that the Project would result in emissions that would represent a fair share of the requisite reductions toward the statewide 2030 target and 2045 carbon neutrality goal. Mitigation is required to ensure that emissions are reduced to the extent feasible.

Most emissions during operations would result from mobile sources. The Project's objectives as well as the locations of Opportunity Sites prioritize infill and mixed-use development and encourage the use of public transit to limit vehicle trips within the City. One of the primary objectives of the Project is to locate new housing in areas readily accessible to services, parks and other amenities, transit, jobs, and activity centers. While these Project features encourage strategic development and increased use of transit, VMT within the City is still expected to increase with development associated with the Project. As discussed in Section 3.12, *Transportation,* the Project is required to

implement transportation demand management strategies to mitigate impacts related to increased VMT. The strategies provided in Mitigation Measure **MM-TRA-1** would reduce VMT and transportation-related GHG emissions through promoting the use of non-motorized transportation, including providing bicycling parking; providing car-sharing, bike sharing, and ride-sharing programs; providing transit passes; and increasing connectivity and/or intersection density in conjunction with development of Opportunity Sites, among others.

Energy use during operation of the Project would be the second largest source of GHG emissions, mostly from the use of natural gas (primarily for space and water heating). In order to reduce emissions, the Project would implement Mitigation Measure **MM-GHG-2** to ensure that new construction would not include any onsite fuel combustion, and all new buildings would be installed with electrical lighting and heating to the extent feasible.

Mitigation Measure **MM-GHG-3** requires implementation of all feasible CALGreen Tier 1 and Tier 2 voluntary measures, which could include strategies that would further reduce emissions from Project operational energy use, water use, and solid waste. The CALGreen Tier 1 and Tier 2 voluntary measures include onsite solar energy requirements, rooftop gardens in new development for insulation and energy efficiency, use of water-efficient irrigation in landscaping, and exceedance of statewide solid waste diversion goals. While implementation of the feasible CALGreen voluntary measures would ensure a reduction in GHG emissions during operation of the Project, it cannot be guaranteed that the measures would reduce them to a level that aligns with statewide GHG goals. The impact is considered significant and unavoidable.

Public Safety Element Update and Environmental Justice Policies

The Public Safety Element Update policies and implementing actions address natural hazards; transportation hazards; police, fire, and emergency services; pandemic preparedness and response; homelessness; and climate change and resiliency. These policies and implementing actions aim to reduce the risk to the community and to ensure protection from foreseeable natural and human-caused hazards. Proposed new residential and mixed-use development would be predominantly located in more urbanized areas of the City. Public Safety Element policies and implementing actions could affect the design and construction of planned developments, such as addition of design elements related to emergency access and pedestrian safety. Public Safety Element policies do not include specific development proposals that would create unplanned growth through extension of roads or other infrastructure and are therefore not expected to result in GHG emissions.

The Public Safety Element Update policies and implementing actions would also involve additional Environmental Justice Policies to address public safety issues within environmental justice communities. Many Public Safety Element Update policies could result in community benefits. No specific infrastructure improvements or projects are identified in the Public Safety Element Update. As this is a policy document, it is not anticipated to result in GHG emissions, let alone emissions that, either directly or indirectly, may have a significant impact on the environment.

Mitigation Measures

The potential impacts of the Project described in this section would be reduced with implementation of the following mitigation measure. However, this impact would remain significant and unavoidable.

MM-GHG-1: Implement diesel emission-reduction measures during construction.

The applicant and/or contractor associated with future development of Opportunity Sites shall implement the following measures during construction and, where specified below, shall submit reports demonstrating compliance to the Planning Division for its review and approval.

- The applicant shall limit all equipment and delivery truck idling times by shutting down equipment when not in use and reducing the maximum idling time to less than 3 minutes. The applicant shall also install clear signage regarding the limitation on idling time at the delivery driveway and loading areas.
- The applicant shall verify that all construction equipment is maintained and properly tuned in accordance with manufacturers' specifications. Prior to the commencement of construction activities using diesel-powered vehicles or equipment, the applicant shall verify that all vehicles and equipment have been checked by a certified mechanic and determined to be running in proper condition prior to admittance into the delivery driveway and loading areas. The applicant shall submit a report by the certified mechanic of the condition construction-related vehicles and equipment to the Planning Division prior to commencement of their use.

MM-GHG-2: Restrict use of natural gas in new development.

Future development on Opportunity Sites shall utilize electrical lighting and heating to the maximum extent feasible or to the extent required by existing or future regulations. Natural gas appliances are to be avoided to the extent feasible as determined by the availability and capacity of electrical power distribution infrastructure.

MM-GHG-3: Implement measures to reduce GHG emissions during operation.

Prior to discretionary approval by the City for Opportunity Site projects subject to CEQA review (i.e., non-ministerial projects), each applicant shall be required to demonstrate that all feasible Tier 1 and Tier 2 CALGreen voluntary measures (Appendix A4 and Appendix A5 of the 2019 CALGreen) shall be implemented.

Impact GHG-2: The Project would conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases. This impact would be significant and unavoidable with implementation of mitigation.

Housing Element Update, Zoning Code Amendments, and Environmental Justice Policies

Construction and operation of the Project would have the potential to conflict with relevant plans, policies, and regulatory programs with purposes of reducing GHG emissions. This analysis qualitatively discusses the Project's consistency with relevant plans, including GP 2025, the 2016 CAP, the CARB Scoping Plan, and other plans, policies, and regulatory programs adopted, drafted, or recommended by CARB and other agencies.

City of Riverside General Plan

As discussed in Section 3.5.3, *Regulatory Setting, Local,* GP 2025 includes policies relevant to the reduction of GHG emissions in its Air Quality Element (City of Riverside 2007a). The relevant policies are outlined in Table 3.5-4 and include those that address infill and mixed-use development (AQ-1.5, AQ-1.6, AQ-1.7, AQ-8.23), reduction in vehicle trips (AQ-1.15, AQ-2.4, AQ-2.7), increased use of transit (AQ-1.23), energy conservation in new construction (AQ-5.6, AQ-5.7), use of renewable energy (AQ-5.3), and solid waste reduction (AQ-5.1).

The Project includes the adoption and implementation of the Housing Element Update for the 2021–2029 planning period, adoption and implementation of Environmental Justice Policies, and updates to the Zoning Code and Specific Plans to address requirements of the 6th RHNA cycle. The proposed Zoning Code and Specific Plan amendments include various multi-family and mixed-use land use categories, which would provide for development of some lower-story commercial/retail, office, and potentially live/work uses. Additionally, as described in Chapter 2, *Project Description*, one of the main objectives of the Project is to locate new housing in areas readily accessible to services, parks and other amenities, transit, jobs, and activity centers. The areas that were identified as Opportunity Sites for additional housing are characterized by the following:

- Locations near public transit and essential services like libraries and neighborhood-serving shopping and amenities
- Areas where housing could be added near commercial buildings or in business parks, creating "live-work" neighborhoods
- Underused sites, such as lots with buildings that are empty, deteriorated, or no longer needed
- Locations where more homes could easily fit within the same space than are there today

The Project objectives and locations of proposed development support the GP 2025 goals of pursuing infill and mixed-use development, encouraging the use of public transit, and reducing overall vehicle trips within the City.

The GP 2025 policies in the Air Quality Element related to energy conservation address compliance or exceedance of Title 24 energy use guidelines, use of automated equipment for control of heating and air conditioning, and use of renewable energy resources. The 2019 Building Energy Efficiency Standards are the most recent Title 24 updates and went into effect on January 1, 2020. All development associated with the Project would be constructed to meet the most recent building energy-efficiency standards defined by Title 24. Development that occurs prior to January 1, 2023, would comply with the current 2019 standards, which include the installation of efficient, low-flow fixtures for kitchen and bathroom faucets, showerheads, and toilets; energy-efficiency lighting requirements for nonresidential buildings; stringent thermal envelope standards to prevent heat transfer and energy loss; and solar photovoltaic system requirements, among others (CEC 2018).

CEC updates the building energy-efficiency standards every 3 years, increasing efficiency requirements of newly constructed buildings with each new installment. For example, compared to the previous 2016 standards, nonresidential buildings built to the 2019 Title 24 standards will use about 30 percent less energy due mainly to lighting upgrades. Within the Project's lifetime, there would be three updates to the efficiency standards (years 2022, 2025, and 2028). Therefore, development associated with the Project would become progressively more energy efficient as the plan continues to be implemented through horizon year 2029.

GP 2025 also includes a policy related to reducing the amount of solid waste disposed of in landfills. During construction and operation, the Project would comply with AB 939, the Integrated Waste Management Act, which requires California cities, counties, and approved regional solid waste management agencies to divert 50 percent of their solid waste each year. Waste generated during construction and operation of the Project would be subject to this mandate, and compliance would address the City's goal of reducing the amount of solid waste that reaches landfills serving the City.

City's CAP

The most relevant plan, policy, or regulatory program adopted for the purpose of reducing the emissions of GHGs is the City's CAP. The City's CAP contains various measures that would be relevant to implementation of the Project. These measures are outlined in Table 3.5-4 and address emissions throughout the City from the energy, transportation, water use, and solid waste sectors. However, as discussed previously, the CAP has not undergone CEQA analysis and is therefore not considered a qualified plan as defined by the State CEQA Guidelines. Furthermore, the CAP does not address the statewide reduction target of 40 percent below 1990 levels by 2030 established by SB 32. A citywide CAP update to address the statewide GHG reduction targets of SB 32 is forthcoming, but not currently available. In general, CAPs designed to reduce GHG emissions within a city, county, or other municipality all contain measures specific to the main GHG-emitting sources listed above (energy, transportation, water use, and solid waste). Therefore, measures in a future CAP update are likely to be similar to those in the City's current CAP, other CAPs in the region, and the Scoping Plan, in that they will aim to reduce emissions through actions to reduce activity and related emissions from the main GHG-emitting sources (energy, transportation, water use, and solid waste) or through pursuing lower-emitting options.

The following discussion evaluates the Project's GHG emissions on a sector-by-sector basis, which aligns with CARB's approach in the Scoping Plan. A discussion related to the general consistency with state plans follows the sector-by-sector discussion,

Energy

Measures related to energy include mandatory efficiency standards for buildings, replacement of traffic and streetlights with high-efficiency bulbs, tree planting, financing and incentives for efficiency improvements for residents and business owners, and procurement of renewably sourced energy. The Project would be consistent with several of these measures due to mandatory statewide programs that would require no action at the project level. These programs include the Title 24 Building Energy Efficiency Standards and RPS.

As discussed above, all development related to the Project would be constructed to the most recent building energy-efficiency standards defined by Title 24. The 2019 Title 24 standards mandate higher efficiency levels and rooftop solar photovoltaic systems for all new residential buildings constructed after 2020. Future standards are expected to result in zero net energy for newly constructed commercial buildings. CEC also enforces the Appliance Efficiency Regulations contained in Title 20 of the California Code of Regulations. The regulations establish water and energy-efficiency standards for both federally regulated and non-federally regulated appliances. Given that these efficiency standards will be updated regularly at 3-year intervals, development associated with the Project would become progressively more energy efficient through horizon year 2029.

Furthermore, it is anticipated that future energy consumption in the City will become less carbon intensive due to the renewable energy procurement goals established by SB 100. SB 100 requires a

doubling of energy efficiency by 2030 and an RPS of 60 percent renewable by 2030. SB 100 also sets a target of 100 percent carbon-free electricity by 2045, while the City's Envision Riverside 2025 Strategic Plan sets a policy goal of 100 percent carbon-free electricity by 2040 as well as a community-wide carbon neutrality target by 2040. GHG reductions related to increased energy efficiency will be achieved through RPU's mandatory compliance with SB 100.

Prior to mitigation, the Project would address energy efficiency and renewable energy procurement objectives necessary to reduce GHG emissions from energy use. However, mitigation is required to ensure the Project considers all feasible GHG reduction strategies related to energy use(Impact-GHG-2). Mitigation Measure **MM-GHG-2** promotes all-electric buildings that do not include any onsite fuel combustion by restricting the use of natural gas in new development to the extent feasible. Additionally, Mitigation Measure **MM-GHG-3** requires implementation of all feasible CALGreen Tier 1 and Tier 2 voluntary measures, which could include measures to promote insulation and energy efficiency.

Transportation

Measures related to transportation include strategic development to decrease VMT, increased access to transit, pedestrian-friendly development, expansion of bicycle infrastructure and a bicycle plan, implementation of transportation demand management strategies, neighborhood electric vehicles, car-sharing, and use of alternatively fueled vehicles.

As discussed above under the consistency discussion with GP 2025, the Project's objectives and the locations of proposed development highlight infill and mixed-use development, encourage the use of public transit, and would reduce overall vehicle trips within the City. One of the main objectives of the Project is to locate new housing in areas readily accessible to services, parks and other amenities, transit, jobs, and activity centers. Therefore, by its nature, the Project would address the goal of strategic development and increased access to transit intended to reduce VMT within the City.

Transportation-related measures also emphasize the use of non-motorized transportation modes such as bicycles and walking as necessary for reducing VMT. Policies specifically propose expansion of bicycle infrastructure, including bicycle lanes and bicycle trails; provision of options for bicycle parking; accelerated implementation of the City's Bicycle Master Plan; creation of nodes offering bike sharing throughout the City; and provision of pedestrian-only community areas. As discussed in Section 3.12, *Transportation,* the Project is required to implement transportation demand management strategies to mitigate impacts related to increased VMT. The strategies provided in Mitigation Measure **MM-TRA-1** that would reduce VMT and transportation-related GHG emissions through non-motorized transportation include providing bicycling parking; providing car-sharing, bike sharing, and ride-sharing programs; providing transit passes; and increasing connectivity and/or intersection density on future development sites, among others.

In addition, federal, state, and local regulatory efforts target three elements of emissions reduction from mobile sources: vehicle fuel efficiency, the carbon content of fuels, and VMT. Most adopted programs and regulations focus on fuel efficiency (e.g., Corporate Average Fuel Economy standards, Pavley standard) and reducing the carbon intensity of transportation fuels (e.g., LCFS). Vehicle electrification is also rapidly becoming part of the state's approach to reducing mobile-source emissions (e.g., Advanced Clean Cars). The Project does not include any features that would conflict with these programs.

SB 743 is intended to close the VMT and emissions-reduction gap. There is a nexus between SB 743 and the state's goals to reduce mobile-source GHG emissions; one criterion under SB 743 for determining the significance of the transportation impacts of a project is a reduction in GHG emissions. In response to SB 743, OPR released its revised *Technical Advisory on Evaluating Transportation Impacts in CEQA* in December 2018. The advisory indicates that "achieving 15% lower per capita (residential) or per employee (office) VMT than existing development is both generally achievable and is supported by evidence that connects this level of reduction to the State's emissions goals" (OPR 2018). This OPR reduction goal is consistent with recent CARB (2019) analysis, which demonstrates that a 14.3 percent reduction of VMT per capita by 2050 (compared to a 2015–2018 average) would be needed statewide to meet its GHG planning goals through 2050.

As discussed in Section 3.12, *Transportation*, implementation of the Project is anticipated to generate VMT per service population that exceeds the long-term regional VMT target. Therefore, because VMT would exceed the regional target, the Project would not fully support CARB's VMT-reduction planning and GHG-reduction goals and would conflict with the state's long-term emission-reduction trajectory.

Water Use

Opportunity Site development would achieve efficient water use largely due to mandatory compliance with statewide programs and regulations. The 2017 Scoping Plan outlines objectives and goals to reduce GHGs in the water sector, including using and reusing water more efficiently through greater water conservation, drought-tolerant landscaping, stormwater capture, and water recycling. Regulations have further targeted water supply and water conservation through building and landscaping efficiency (e.g., Title 24). The 2017 Scoping Plan also proposes that local water and wastewater utilities adopt a long-term water conservation goal to reduce GHGs by 80 percent below 1990 levels by 2050, and thereafter move toward low-carbon or net-zero carbon water management systems. These goals are consistent with those established by the California Department of Water Resources in its 2020 CAP (California Department of Water Resources 2020).

Mitigation Measure **MM-GHG-3** requires implementation of all feasible CALGreen Tier 1 and Tier 2 voluntary measures, which could include water efficiency measures, such as use of greywater and rainwater for landscape irrigation. These measures are consistent with the 2017 Scoping Plan's water measures and the state's regulatory programs within the water sector.

Solid Waste

Mitigation Measure **MM-GHG-3** requires implementation of all feasible CALGreen Tier 1 and Tier 2 voluntary measures, which could include diversion of at least 80 percent of nonhazardous construction and demolition waste. Measures within the City related to solid waste include providing residents with green waste collection bins and diverting food and paper waste from landfills through collection programs. AB 341 requires mandatory recycling for certain commercial businesses and establishes a statewide recycling goal of 75 percent by the year 2020. Forthcoming regulations pursuant to SB 1383 will also establish minimum standards for organic waste collection, hauling, and composting. The final regulations will take effect on or after January 1, 2022.

Consistency with State Plans, Programs, and Policies

The 2017 Scoping Plan builds on the programs set in place as part of the previous Scoping Plan that was drafted to meet the 2020 reduction targets per AB 32. The 2017 Scoping Plan proposes meeting

the 2030 goal by both accelerating the focus on several existing programs and incorporating new strategies and programs that go beyond existing measures and strategies. Although the measures included in the 2017 Scoping Plan are necessarily broad, the Project would be generally consistent with the goals and desired outcomes of the Scoping Plan. The Project's consistency with the 2017 Scoping Plan strategies is provided in Table 3.5-9. As shown, the Project would be generally consistent with the adopted statewide programs in the 2017 Scoping Plan. In each case, the state program requires no action at the project level, and benefits to project-related emission sources will be realized over time. For example, the Scoping Plan incorporates SB 350, which extends the RPS to a 50-percent target by 2030 while doubling the energy-efficiency savings expected statewide. In addition, CARB expanded the LCFS, aiming to achieve an 18-percent reduction in the carbon intensity of transportation fuels. Furthermore, the Mobile Source Strategy aims to support the transition to 1.5 million zero-emission vehicles (plug-in hybrid electric, battery-electric, and hydrogen fuel cell) by 2025 and 4.2 million by 2030, while also ramping up GHG stringency for all light-duty vehicles. Each of these measures will be implemented over time, and benefits to Project-related emission sources would be realized over time.

Table 3.5-9. Project Consistency with Applicable Policies from the 2017 Scoping Plan and Other Applicable Statewide Measures

Policy	Primary Objective	Project Consistency Analysis
SB 350 (superseded by SB 100)	Reduce GHG emissions in the electricity sector through the implementation of the 60% RPS, doubling of energy savings, and other actions as appropriate to achieve GHG emissions reductions planning targets in the Integrated Resource Plan process.	**Consistent.** This is a state program that requires RPU, as a water and electric utility, to comply. The City's compliance with the Project would ensure the benefits to Project-related electricity and water consumption are realized. The Project would be subject to any regulations or actions developed to implement the goals of SB 350.
LCFS	Transition to cleaner/less-polluting fuels that have a lower carbon footprint.	**Consistent.** This is a state program that requires no action at the local or project level. Benefits to Project-related vehicle travel during construction and operation would be realized independently.
Mobile Source Strategy (Cleaner Technology and Fuels Scenario)	Reduce GHGs and other pollutants from the transportation sector through transition to zero-emission and low-emission vehicles, cleaner transit systems, and reduction of VMT.	**Consistent.** This is a state program that requires no action at the local or project level. Benefits to Project-related vehicle travel would be realized independently.
SB 1383	Approve and implement SLCP strategy to reduce highly potent GHGs.	**Consistent.** This is a state program that requires waste haulers within the City, which include the City and franchised haulers, to comply. Mitigation Measure **MM-GHG-3** requires implementation of all feasible CALGreen Tier 1 and Tier 2 voluntary measures, which could include exceedance of statewide waste diversion goals.

Public Safety Element Update and Environmental Justice Policies

The Public Safety Element Update policies and implementing actions address natural hazards; transportation hazards; police, fire, and emergency services; pandemic preparedness and response; homelessness; and climate change and resiliency. These policies and implementing actions aim to reduce the risk to the community and to ensure protection from foreseeable natural and human-caused hazards. Proposed new residential and mixed-use development would be predominantly located in more urbanized areas of the City. Public Safety Element policies and action items could affect the design and construction of planned developments, such as addition of design elements related to emergency access and pedestrian safety. Public Safety Element policies do not include specific development proposals that would create unplanned growth through extension of roads or other infrastructure and are therefore not expected to result in GHG emissions.

The Public Safety Element Update policies and implementing actions would also involve additional Environmental Justice Policies to address public safety issues within environmental justice communities. Many Public Safety Element Update policies could result in community benefits. No specific infrastructure improvements or projects are identified in the Public Safety Element Update. As this is a policy document, this update would not conflict with or obstruct applicable plans, policies, or regulations adopted for the purpose of reducing the emissions of GHGs.

Mitigation Measures

The potential impacts of the Project described in this section would be reduced with implementation of Mitigation Measures **MM-GHG-1** through **MM-GHG-3**. However, this impact would remain significant and unavoidable.

3.6 Hazards and Hazardous Materials

3.6.1 Introduction

This section describes the geographic and regulatory setting for hazards and hazardous materials, discusses impacts that could result from the implementation of the updates to the City of Riverside's (City's) Housing and Public Safety Elements and Environmental Justice Policies, and determines the significance of impacts. Where needed, this section identifies mitigation measures that would reduce or avoid any significant impacts. Data presented were obtained from the State Water Resources Control Board's (SWRCB's) GeoTracker (SWRCB 2021a), the Department of Toxic Substances Control's (DTSC's) EnviroStor (DTSC 2021), and Cortese List Data Resources from the California Environmental Protection Agency (Cal/EPA). The analysis methods, data sources, significance thresholds, and terminology used are described. Details on the location of the Project and a description of Project activities are included in Chapter 2*, Project Description*, of this EIR.

A hazardous material is any substance that, because of its quantity, concentration, or physical or chemical properties, may pose a hazard to human health and the environment. Under California Code of Regulations (CCR) Title 22, the term "hazardous substance" refers to both hazardous materials and hazardous wastes. Both of these are classified according to four properties: (1) toxicity, (2) ignitability, (3) corrosiveness, and (4) reactivity (CCR Title 22, Chapter 11, and Article 3). A hazardous material is defined in CCR Title 22 as:

> [a] substance or combination of substances which, because of its quantity, concentration, or physical, chemical or infectious characteristics, may either (1) cause, or significantly contribute to, an increase in mortality or an increase in serious irreversible, or incapacitating reversible, illness; or (2) pose a substantial present or potential hazard to human health or environment when improperly treated, stored, transported or disposed of or otherwise managed. (CCR Title 22 Section 66260.10)

Hazardous materials in various forms can cause death, serious injury, long-lasting health effects, and damage to buildings, homes, and other property. Hazards to human health and the environment can occur during production, storage, transport, use, or disposal of hazardous materials.

3.6.2 Environmental Setting

The City is in western Riverside County and is bounded on the north by the Santa Ana River, the unincorporated community of Rubidoux, and the Cities of Jurupa Valley, Colton, and Rialto (San Bernardino County); on the south by unincorporated communities of Woodcrest and Mockingbird Canyon; on the east by the unincorporated community of Highgrove and the City of Moreno Valley; and on the west by the unincorporated community of Home Gardens and the Cities of Norco and Corona.

The City has a population of approximately 328,155 as of January 2020 (California Department of Finance 2020). In the City's recent history, population growth has been constant, adding approximately 40,000 new residents each decade since the 1960s. Past growth has been fueled by the City's attractive housing market due to its affordable offerings. Despite periods of economic recession, the City has continued to experience consistent growth.

Predominant land uses within the City include commercial uses and business parks, residential neighborhoods, mixed-use centers and corridors, and education institutions. Downtown Riverside, within the northern portion of the City's jurisdiction, is an urban, built-out neighborhood with businesses and residential uses, consisting of historic and modern buildings. The University Avenue area is a corridor dominated by mixed-use development that travels from Downtown Riverside to the Eastside neighborhood and University of California Riverside, from east to west. The Magnolia Avenue/Market Street corridor is a mixed-use corridor with urban villages of residential uses from Downtown Riverside through neighborhoods from the southwest to the northwest. There are three primary business areas: Hunter Business Park in the northern portion of the City, Sycamore Canyon Business Park in the eastern portion of the City, and Airport Business Park in the northwestern portion of the City surrounding the Riverside Municipal Airport, as well as smaller concentrations of business uses dispersed throughout the City. The business areas are dominated by large, low-profile commercial, office, and warehouse buildings; industrial buildings and utility infrastructure such as water treatment and electric substation facilities; and paved parking lots. In addition to these development areas, there are regional and citywide shopping centers, educational institutions, hospitals, and parkways. Natural features include the Arlington Heights Greenbelt in the southern portion of the City, as well as Arroyos throughout the upslope (generally southeastern) portions of the City. The Santa Ana River is along the northern boundary of the City, which is generally downslope.

Hazardous Material Use

Due to the nature of their use, residential and office uses typically do not pose significant hazardous material impacts. Hazardous materials are not typically handled in substantial amounts and materials typically used for such activities as cleaning and maintenance are not classified as acutely hazardous. Industrial and commercial land uses have a higher likelihood of hazardous material impacts.

Industrial land use can encompass a wide range of business operations that have the potential to create hazardous material impacts. Industrial facilities may store hazardous materials in underground storage tanks (USTs) and/or aboveground storage tanks, and in designated storage locations. Age and improper maintenance of storage tanks are common causes of soil and groundwater contamination. Improper handling and storage of hazardous material containers can lead to hazardous material incidents.

Commercial land uses can include vehicle repair sites, gasoline fueling stations, and dry-cleaning facilities. Like industrial facilities, some commercial sites store hazardous materials in storage tanks and in designated areas within the facility. Hazardous material spills and leaks in vehicle repair and fueling locations can lead to hydrocarbon-impacted soil and groundwater. Improper storage and use of hazardous materials in dry cleaning facilities can lead to chlorofluorocarbon-contaminated soil and groundwater.

Hazardous Material Sites within the City of Riverside

A review of SWRCB's GeoTracker and DTSC's EnviroStor of hazardous material sites listed within the City identified multiple hazardous material cleanup sites including Leaking Underground Storage Tank (LUST) Cleanup Sites, Cleanup Program Sites, Military Cleanup and UST Sites, and

DTSC Cleanup Sites throughout the City (DTSC 2021; SWRCB 2021a). A brief description of each classification is included below:

- **LUST Cleanup Sites**: include all UST sites that have had an unauthorized release (i.e., leak or spill) of a hazardous substance, usually fuel hydrocarbons, and are currently being (or have been) remediated. In GeoTracker, LUST sites consist almost entirely of fuel-contaminated LUST sites, which are regulated pursuant to Title 23 of the CCR, Chapter 16, Article 11.
- **Cleanup Program Sites**: include all non-federally owned sites that are regulated under SWRCB's Site Cleanup Program and/or similar programs conducted by each of the nine Regional Water Quality Control Boards (RWQCBs). Cleanup Program Sites are also commonly referred to as "Site Cleanup Program Sites." Cleanup Program Sites are varied and include but are not limited to pesticide and fertilizer facilities, rail yards, ports, equipment supply facilities, metals facilities, industrial manufacturing and maintenance sites, dry cleaners, bulk transfer facilities, refineries, mine sites, landfills, Resource Conservation and Recovery Act (RCRA)/Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) cleanups, and some brownfields. Unauthorized releases detected at Cleanup Program Sites are highly variable and include but are not limited to hydrocarbon solvents, pesticides, perchlorate, nitrate, heavy metals, and petroleum constituents, to name a few.
- **Military Cleanup Sites:** include all cleanup sites within active installations, installations subject to Base Realignment and Closure, and formerly used defense sites. Military Cleanup Sites include a wide range of discharges but are primarily regulated under RCRA/CERCLA standards by each of the nine RWQCBs. The nine RWQCBs partner with the Department of Defense through the use of the Defense and State Memorandum of Agreement Cooperative Agreement, which allows for expeditious cleanup at military facilities while ensuring compliance with applicable state laws and regulations. The SWRCB manages the Department of Defense Program on a statewide level and the RWQCBs provide regulatory oversight of cleanup at Department of Defense facilities in their respective regions. Military Cleanup Sites can be transferred to the jurisdiction of other federal, state, local, or private agencies.
- **DTSC Cleanup Sites:** As listed below, there are several sub-categories within the DTSC Cleanup Sites category, which can include sites undergoing evaluation or remediation.
    - *Corrective Action* sites include investigation or cleanup activities at RCRA or state-only hazardous waste facilities (that were required to obtain a permit or have received a hazardous waste facility permit from DTSC or U.S. Environmental Protection Agency [EPA]).
    - The *Evaluation* subcategory identifies suspected, but unconfirmed, contaminated sites that need or have gone through a limited investigation and assessment process.
    - Sites in the *Expedited Remedial Action Program* are confirmed release facilities/sites worked on by responsible parties with oversight of the cleanup by DTSC. This is a statewide pilot program limited to 30 facilities/sites. These confirmed facilities/sites are generally high priority and high potential risk.
    - The *Federal Superfund (National Priorities List)* subcategory identifies sites where EPA proposed, listed, or delisted a site on the National Priorities List.
    - *Formerly Used Defense Sites* are military facilities that were Formerly Used Defense Sites with confirmed or unconfirmed releases and where DTSC is involved in investigation and/or remediation, either in a lead or support capacity.

- The *Hazardous Waste Property or Border Zone Property Evaluation* subcategory identifies facilities/sites that went through the Hazardous Waste Property or Border Zone Property evaluation process (Chapter 6.5, Health and Safety Code Section 25221).
- The *Historical* subcategory identifies sites from an older database where no site type was identified. Most of these sites have a status of Referred or No Further Action. DTSC is working to clean up these data by identifying an appropriate site type for each Historical site.
- The *Open Base* category identifies open military facilities with confirmed or unconfirmed releases and where DTSC is involved in investigation and/or remediation, either in a lead or support capacity.
- The *Permitted* subcategory refers to facilities/sites that were required to obtain a permit or have received a hazardous waste facility permit from DTSC or EPA in accordance with Section 25200 of the Health and Safety Code or the RCRA.
- The *School* subcategory identifies proposed and existing school sites that are being evaluated by DTSC for possible hazardous material contamination. School sites are further defined as "Cleanup" (remedial actions occurred) or "Evaluation" (no remedial action occurred) based on completed activities.
- *State Response* sites are confirmed release sites where DTSC is involved in remediation, either in a lead or oversight capacity. These confirmed release sites are generally high priority and high potential risk.
- The *Tiered Permit* subcategory identifies a corrective action cleanup project on a hazardous waste facility that either was eligible to treat or permitted to treat waste under the Tiered Permitting system.
- Facilities in this subcategory fall under the Permit by Rule tier or Conditionally Authorized or Exempt tiers.
- *Voluntary Cleanup* sites are with either confirmed or unconfirmed releases, and the project proponents have requested that DTSC oversee evaluation, investigation, and/or cleanup activities and have agreed to provide coverage for DTSC's costs.

Cortese List Sites

The provisions in Government Code Section 65962.5 are commonly referred to as the "Cortese List." The list, or a site's presence on the list, has bearing on the local permitting process as well as on compliance with CEQA (Cal/EPA 2021). Sites listed under the LUST Sites database from SWRCB's GeoTracker site (mentioned above) meet Cortese List requirements. In addition, the following resources contain sites meeting Cortese List requirements:

- List of Hazardous Waste and Substances sites from DTSC
- List of solid waste disposal sites identified by RWQCB with waste constituents above hazardous waste levels
- List of active Cease and Desist Orders and Cleanup and Abatement Orders from RWQCB
- List of hazardous waste facilities subject to corrective action pursuant to Section 25187.5 of the Health and Safety Code, identified by DTSC

At the time of the preparation of this document, the following sites were identified within the listed Cortese List Data Resources (with exception of LUST sites mentioned under *Hazardous Material Sites within the City of Riverside*):

- CP Anza (EnviroStor/EPA ID 33970009). Located at the 62-acre Riverside Ag Park site in the Arlanza Neighborhood. Listed as an *Active* State Response site under the DTSC's Site Cleanup Program. Listed contaminants of concern include chlorine and explosives (unexploded ordnance and munitions and explosives of concern) with impacted media including soil, sediments and groundwater. Past uses causing contamination listed as *Warehousing, Waste - Sewage Treatment Plant, Waste - Sewage Treatment Ponds*.
- Alark Hard Chrome (EnviroStor/EPA ID 33340002). Located at 2775 Main Street. Listed as a Federal Superfund site under EPA oversight. Cleanup status identified as *Active as of 4/19/1996*. Listed contaminant of concern includes trichloroethylene with impacted media including groundwater. Past uses causing contamination listed as *Metal Plating – Chrome*.
- FMC Corporation Philadelphia (Facility ID 228446). Located at 3075 12th Street. Cleanup and Abatement Order site. Listed as an *Active* groundwater cleanup under the Unregulated Sites program.
- Flight Road (Facility ID 228451). Located at 6741 Flight Road. Cleanup and Abatement Order site. Listed as an *Active* groundwater cleanup under the Underground Storage Tanks program.

Schools

According to the *Riverside General Plan 2025* (GP 2025) Education Element, the City hosts three universities (University of California, Riverside; California Baptist University; La Sierra University), a college (Riverside Community College), two school districts (Riverside and Alvord Unified School Districts), and several private and charter schools throughout the City.

3.6.3 Regulatory Setting

Hazards and hazardous materials are subject to numerous federal, state, and local laws and regulations intended to protect health, safety, and the environment. EPA, DTSC, RWQCB, the County of Riverside, and the City are the primary agencies enforcing these regulations. Local regulatory agencies enforce many federal and state regulations through the Certified Unified Program Agency (CUPA) program. The Riverside County Fire Department/County of Riverside Department of Environmental Health Hazardous Materials Branch are the lead agencies for the investigation and cleanup of LUST sites. RWQCB is the lead agency for other groundwater cases. DTSC can be the lead agency for cases with no groundwater issues and is the lead agency for investigation and remediation of hazardous sites.

Federal

Resources Conservation and Recovery Act (42 USC 6901 et seq.)

The RCRA is the principal law governing the management and disposal of hazardous materials. The RCRA is considered a "cradle-to-grave" statute for hazardous wastes in that it addresses all aspects of hazardous materials from creation to disposal.

Emergency Planning and Community Right-to-Know Act (Superfund Amendments and Reauthorization Act Title III)

The Emergency Planning and Community Right-to-Know Act improved community access to information regarding chemical hazards and facilitated the development of business chemical inventories and emergency response plans. The act also established reporting obligations for facilities that store or manage specified chemicals.

U.S. Department of Transportation Hazardous Materials Transportation Act of 1975 (49 USC 5101)

The U.S. Department of Transportation, in conjunction with EPA, is responsible for enforcement and implementation of federal laws and regulations pertaining to safe storage and transport of hazardous materials. The Code of Federal Regulations (CFR) 49, 171–180, regulates the transport of hazardous materials, types of material defined as hazardous, and the marking of vehicles transporting hazardous materials.

The Federal Motor Carrier Safety Administration (49 CFR 383–397)

The Federal Motor Carrier Safety Administration, a part of the U.S. Department of Transportation, issues regulations concerning highway transport of hazardous materials, the hazardous materials endorsement for a commercial driver's license, highway hazardous material safety permits, and financial responsibility requirements for motor carriers of hazardous materials.

Occupational Safety and Health Administration (29 USC 15)

The Occupational Health and Safety Administration is the federal agency responsible for ensuring worker safety. Its regulations provide standards for safe workplaces and work practices, including those relating to hazardous material handling.

Federal Insecticide, Fungicide, and Rodenticide Act (7 USC 136 et seq.) (1996)

The Federal Insecticide, Fungicide, and Rodenticide Act provides for federal regulation of pesticide distribution, sale, and use ("pesticides" include any herbicide, insecticide, rodenticide, algaecide, fungicide, or any combination of substances intended to prevent, destroy, or repel any pest). All pesticides distributed or sold in the United States must be registered (licensed) by EPA. Before EPA may register a pesticide under the act, the applicant must show, among other things, that using the pesticide according to specifications "will not generally cause unreasonable adverse effects on the environment." The act defines the term "unreasonable adverse effects on the environment" to mean: (1) any unreasonable risk to man or the environment, taking into account the economic, social, and environmental costs and benefits of the use of any pesticide, or (2) a human dietary risk from residues that result from a use of a pesticide in or on any food inconsistent with the standard under Section 408 of the Federal Food, Drug, and Cosmetic Act. Training is required for workers in pesticide-treated areas and certification and training is required for applicators of restricted use pesticides.

Comprehensive Environmental Response, Compensation, and Liability Act/ Superfund Amendments and Reauthorization Act

CERCLA, commonly known as "Superfund," was enacted by Congress on December 11, 1980. This law (42 United States Code [USC] 103) provides broad federal authority to respond directly to releases or threatened releases of hazardous substances that may endanger public health or the environment. CERCLA establishes requirements concerning closed and abandoned hazardous waste sites, provides for liability of persons responsible for releases of hazardous waste at these sites, and establishes a trust fund to provide for cleanup when no responsible party can be identified. CERCLA also enabled the revision of the National Contingency Plan. This plan (40 CFR 300) provides the guidelines and procedures needed to respond to releases and threatened releases of hazardous substances, pollutants, and/or contaminants. The National Contingency Plan also established the National Priorities List. CERCLA was amended by the Superfund Amendments and Reauthorization Act on October 17, 1986.

State

California Environmental Protection Agency

Cal/EPA was created in 1991. It unified California's environmental authority in a single cabinet-level agency and brought the California Air Resources Board, SWRCB, RWQCB, California Department of Resources Recycling and Recovery, DTSC, Office of Environmental Health Hazard Assessment, and Department of Pesticide Regulation under one agency. These agencies were placed under the Cal/EPA "umbrella" for the protection of human health and the environment to ensure the coordinated deployment of state resources. Its mission is to restore, protect, and enhance the environment and ensure public health, environmental quality, and economic vitality.

Department of Toxic Substances Control

DTSC, a department of Cal/EPA, is the primary agency in California for regulating hazardous waste, cleaning up existing contamination, and finding ways to reduce the amount of hazardous waste produced in California. DTSC regulates hazardous waste primarily under the authority of the federal RCRA and the California Health and Safety Code (primarily Division 20, Chapters 6.5 through 10.6, and Title 22, Division 4.5). Other laws that affect hazardous waste are specific to handling, storage, transport, disposal, treatment, reduction, cleanup, and emergency planning.

USC 65962.5 (commonly referred to as the Cortese List) includes DTSC-listed hazardous waste facilities and sites, Department of Health Services lists of contaminated drinking water wells, sites listed by SWRCB as having UST leaks or a discharge of hazardous wastes or materials into the water or groundwater, and lists from local regulatory agencies of sites with a known migration of hazardous waste/material.

Hazardous Waste Control Act (California Health and Safety Code, Section 25100 et seq.)

The Hazardous Waste Control Act is the state equivalent of the RCRA and regulates the generation, treatment, storage, and disposal of hazardous waste. This act implements the RCRA "cradle-to-grave" waste management system in California but is more stringent in its regulation of non-RCRA

wastes, spent lubricating oil, small-quantity generators, and transportation and permitting requirements, as well as in its penalties for violations.

Unified Hazardous Waste and Hazardous Materials Management Regulatory Program

The Unified Hazardous Waste and Hazardous Materials Management Regulatory Program (California Health and Safety Code, Chapter 6.11, Sections 25404–25404.9) provides authority to the CUPA.

The Unified Hazardous Waste and Hazardous Materials Management Regulatory Program consolidates, coordinates, and makes consistent the administrative requirements, permits, inspections, and enforcement activities of hazardous material programs including HazMat Business Plan Program, California Accidental Release Prevention Program, UST Program, Aboveground Storage Tank Program, Hazardous Waste Generator Program, and Incident Response.

California Accidental Release Prevention Program

The purpose of the California Accidental Release Prevention Program is to prevent accidental releases of substances that can cause serious harm to the public and the environment, to minimize the damage if releases do occur, and to satisfy community right-to-know laws. This is accomplished by requiring businesses that handle more than a threshold quantity of a regulated substance listed in the regulations to develop a Risk Management Plan. A Risk Management Plan is a detailed engineering analysis of the potential accident factors present at a business and the mitigation measures that can be implemented to reduce this accident potential. The Risk Management Plan contains safety information, hazards review, operating procedures, training requirements, maintenance requirements, compliance audits, and incident investigation procedures (California OES 2016).

California Hazardous Materials Release Response Plans and Inventory Law of 1985

The California Hazardous Materials Release Response Plans and Inventory Law of 1985 requires preparation of hazardous materials business plans (HMBPs) and disclosure of hazardous material inventories, including an inventory of hazardous materials handled, plans showing where hazardous materials are stored, an emergency response plan, and provisions for employee training in safety and emergency response procedures (California Health and Safety Code, Division 20, Chapter 6.95, Article 1). Statewide, DTSC has primary regulatory responsibility for management of hazardous materials, with delegation of authority to local jurisdictions that enter into agreements with the state. Local agencies are responsible for administering these regulations.

Several state agencies regulate the transport and use of hazardous materials to minimize potential risks to public health and safety, including Cal/EPA and California Emergency Management Agency. The California Highway Patrol and California Department of Transportation enforce regulations specifically related to the transport of hazardous materials. Together, these agencies determine container types used and license hazardous waste haulers for hazardous waste transport on public roadways.

Health and Safety Code, Sections 2550 et seq.

This code and the related regulations in 19 CCR 2620 et seq. require local governments to regulate local business storage of hazardous materials in excess of certain quantities. The law also requires that entities storing hazardous materials be prepared to respond to releases. Those using and storing hazardous materials are required to submit an HMBP to their local CUPA and to report releases to their CUPA and the California Office of Emergency Services.

California Division of Occupational Safety and Health

The California Division of Occupational Safety and Health (Cal/OSHA) is responsible for developing and enforcing workplace safety standards and ensuring worker safety in the handling and use of hazardous materials. Among other requirements, Cal/OSHA requires many entities to prepare injury and illness prevention plans and chemical hygiene plans and provides specific regulations to limit exposure of construction workers to lead.

Government Code Section 65962.5 (Cortese List)

The provisions in Government Code Section 65962.5 are commonly referred to as the "Cortese List" (after the legislator who authored and enacted the legislation). The list, or a site's presence on the list, has bearing on the local permitting process, as well as on compliance with CEQA. The list is developed with input from the State Department of Health Services, SWRCB, California Integrated Waste Management Board, and DTSC. At a minimum, at least annually, DTSC must submit to the Secretary for Environmental Protection a list of the following:

1. All hazardous waste facilities subject to corrective action pursuant to Section 25187.5 of the Health and Safety Code
2. All land designated as hazardous waste property or border zone property pursuant to Article 11 (commencing with Section 25220) of Chapter 6.5 of Division 20 of the Health and Safety Code
3. All information received by DTSC pursuant to Section 25242 of the Health and Safety Code on hazardous waste disposals on public land
4. All sites listed pursuant to Section 25356 of the Health and Safety Code
5. All sites included in the Abandoned Site Assessment Program
6. All USTs for which an unauthorized release report is filed pursuant to Section 25295 of the Health and Safety Code.
7. All solid waste disposal facilities from which there is a migration of hazardous waste and for which a California RWQCB has notified DTSC pursuant to subdivision (e) of Section 13273 of the Water Code
8. All cease-and-desist orders issued after January 1, 1986, pursuant to Section 13301 of the Water Code, and all cleanup or abatement orders issued after January 1, 1986, pursuant to Section 13304 of the Water Code, that concern the discharge of wastes that are hazardous materials
9. All solid waste disposal facilities from which there is a known migration of hazardous waste

The Secretary for Environmental Protection consolidates the information submitted pursuant to this section and distributes it in a timely fashion to each city and county in which sites on the lists are

located. The Secretary distributes the information to any other person upon request. The Secretary may charge a reasonable fee to persons requesting the information, other than cities, counties, or cities and counties, to cover the cost of developing, maintaining, and reproducing and distributing the information.

California Department of Pesticide Regulation, 3 CCR Food and Agriculture, Division 6, Pesticides and Pest Control Operations

This section of the CCR addresses the use of pesticides and pest control operations. These regulations provide pesticide registration and licensing procedures, lists of restricted materials, work and worker safety requirements, and environmental protections for groundwater, surface water, air, and aquatic environments. For all development facilitated by the Project, the specific project applicants and contractors would be required to comply with California Department of Pesticide Regulation regulations.

California Labor Code (Division 5, Parts 1, 6, 7, and 7.5)

The California Labor Code is a collection of regulations that include regulation of the workplace to ensure appropriate training on the use and handling of hazardous materials and operation of equipment and machines that use, store, transport, or dispose of hazardous materials. Division 5, Part 1, Chapter 2.5 ensures that employees who are in charge of handling hazardous materials are appropriately trained and informed with respect to the materials they handle. Division 5, Part 7 ensures that employees who work with volatile flammable liquids are outfitted with appropriate safety gear and clothing.

State Water Resources Control Board Municipal Separate Storm Sewer System Permits

Municipal Separate Storm Sewer System Permits require that cities and counties develop and implement programs and measures, including best management practices (BMPs), control techniques, system design and engineering methods, and other measures as appropriate to reduce the discharge of pollutants in stormwater to the maximum extent possible. As part of permit compliance, Municipal Separate Storm Sewer System permit holders have created stormwater management plans for their respective locations. These plans outline the requirements for municipal operations, industrial and commercial businesses, construction sites, and planning and land development. These requirements may include multiple measures to control pollutants in stormwater discharge. During implementation of specific projects under the program, project applicants are required to follow the guidance contained in the stormwater management plans as defined by the permit holder in that location.

Construction General Permit

SWRCB issued a statewide National Pollutant Discharge Elimination System General Permit for Stormwater Discharges Associated with Construction Activity (Order No. 2009-0009-DWQ as amended by 2010-0014-DWQ and 2012-0006-DWQ) (Construction General Permit), effective July 1, 2010 (SWRCB 2021b). Every construction project that disturbs 1 or more acres of land surface or that is part of a common plan of development or sale that disturbs more than 1 acre of land surface would require coverage under this Construction General Permit. To obtain coverage under this Construction General Permit, the landowner or other applicable entity must file Permit Registration

Documents prior to the commencement of construction activity, which include a Notice of Intent and Stormwater Pollution Prevention Plan (SWPPP) prepared by a Qualified SWPPP Developer, and mail the appropriate permit fee to SWRCB.

Construction activities subject to the Construction General Permit include clearing, grading, and disturbances to the ground, such as stockpiling or excavation, that result in soil disturbances of at least 1 acre of total land area. The SWPPP has two major objectives: (1) to help identify the sources of sediment and other pollutants that affect the quality of stormwater discharges; and (2) to describe and ensure the implementation of BMPs to reduce or eliminate sediment and other pollutants in stormwater and non-stormwater discharges. BMPs are intended to reduce impacts to the *maximum extent practicable*, which is a standard created by Congress to allow regulators the flexibility necessary to tailor programs to the site-specific nature of municipal stormwater discharges. The SWPPP is required to be implemented and monitored regularly by a Qualified SWPPP Practitioner. Reducing impacts to the maximum extent practicable generally relies on BMPs that emphasize pollution prevention and source control, with additional structural controls as needed. The Construction General Permit requires that specific minimum BMPs are incorporated into the SWPPP, depending on the project's sediment risk to receiving waters based on the project's erosion potential and receiving water sensitivity to sediment.

Regional

There are no applicable regional policies or regulations related to hazards and hazardous materials.

Local

County of Riverside

Hazardous Materials Branch of Riverside County Department of Environmental Health: As the designated CUPA, the Riverside County Department of Environmental Health Hazardous Materials Branch is responsible for overseeing the six hazardous materials programs in the county. Responsibilities include inspection of facilities that handle hazardous materials, generate hazardous waste, treat hazardous waste, own/operate USTs, own/operate aboveground petroleum storage tanks, or handle other materials subject to the California Accidental Release Program. In addition, the Hazardous Materials Branch maintains an emergency response team that responds to hazardous materials and other environmental health emergencies 24 hours a day, 7 days a week (County of Riverside DEH 2016).

Hazardous Materials Fire Code Requirements: As the CUPA, the Hazardous Materials Branch for Riverside County enforces the hazardous materials–related standards of the California Fire Code, including requirements for signage of hazardous material storage areas, storage of flammable materials, secondary containment for storage containers, and separation of incompatible chemicals.

Riverside County Hazardous Waste Management Plan: The Riverside County Hazardous Waste Management Plan was adopted in 1989 and uses a framework of 24 programs to serve as the county's primary planning document for the management of hazardous substances. Its policies include compliance with federal and state laws pertaining to the management of hazardous wastes and materials; active public participation in hazardous waste and hazardous material management decisions in Riverside County; coordination of hazardous waste facility responsibilities on a regional basis through the Southern California Hazardous Waste Management Authority; and encouragement

and promotion of the programs, practices, and recommendations contained in the county Hazardous Waste Management Plan, giving the highest waste management priority to the reduction of hazardous waste at its source.

The City of Riverside Fire Department/Fire Prevention Division is a CUPA Participating Agency under the County of Riverside CUPA program. The Riverside Fire Department is responsible for administrating certain CUPA/hazardous materials program elements, including HMBPs, the Above Ground Storage Tank Program, the California Accidental Release Prevention Program, and the Uniform Fire Code Plans and Inventory Requirements.

City of Riverside

GP 2025 Public Safety Element

The goal of a jurisdiction's Public Safety Element is to reduce the potential short- and long-term risks of death, injuries, property damage, and economic and social disruption resulting from fires, floods, droughts, earthquakes, landslides, climate change, and other hazards. Other locally relevant safety issues—such as emergency response, hazardous material spills, crime reduction, and response to global pandemics like COVID-19 beginning in 2020 and continuing through 2021—may also be included. The Public Safety Element directly relates to topics mandated in the Land Use and Urban Design and Open Space and Conservation Elements as well as a key consideration for the Environmental Justice Policies of the general plan. The Public Safety Element must identify hazards and ways to reduce those hazards to guide local decisions related to zoning and development regulations. Policies and implementable actions may include methods for minimizing risks, as well as ways to minimize economic disruption and speed up recovery following disaster. The City's update to the Public Safety Element will identify public safety issues and needs anticipated to be of ongoing concern to people in the City. The Public Safety Element will ensure that the City takes action to reduce natural and man-made hazards and safety threats as well as respond quickly to any public safety incident.

Principles and policies that are proposed for inclusion in the Public Safety Element Update are listed in detail in Chapter 2, *Project Description*.

Table 3.6-1 includes GP 2025 and Specific Plan policies relevant to hazards and hazardous materials.

Table 3.6-1. Relevant Riverside General Plan and Specific Plan Policies

Plan	Policy
Riverside General Plan 2025	
Public Safety Element	Objective PS-3: Minimize risks associated with the storage, transport and disposal of hazardous materials.
	Policy PS 3-1: Ensure that hazardous materials used in business and industry are handled properly.
	Policy PS 3-3: Work with responsible Federal, State, and County agencies to identify and regulate the disposal of toxic materials.
	Policy PS 9-1: Maintain an effective, coordinated and up-to-date community-wide emergency response plan.
	Policy PS 9-8: Reduce the risk to the community from hazards related to geologic conditions, seismic activity, flooding and structural and wildland fires

Plan	Policy
	by requiring feasible mitigation of such impacts on discretionary development projects. Policy PS 10-3: Ensure that public safety infrastructure and staff resources keep pace with new development planned and proposed in Riverside and the Sphere of Influence.
Specific Plans	
Canyon Springs Business Park Specific Plan	There are no policies relevant to the Project regarding hazards and hazardous materials.
Downtown Specific Plan	There are no policies relevant to the Project regarding hazards and hazardous materials.
Hunter Business Park Specific Plan	There are no policies relevant to the Project regarding hazards and hazardous materials.
La Sierra University Specific Plan	There are no policies relevant to the Project regarding hazards and hazardous materials.
Magnolia Avenue Specific Plan	There are no policies relevant to the Project regarding hazards and hazardous materials.
Riverside Marketplace Specific Plan	There are no policies relevant to the Project regarding hazards and hazardous materials.
University Avenue Specific Plan	There are no policies relevant to the Project regarding hazards and hazardous materials.

Sources: City of Riverside 1991, 2002, 2005, 2007, 2009, 2017a, 2017b, 2018.

City of Riverside Municipal Code

The City of Riverside Municipal Code indicates:

> The Fire Department shall be responsible for implementing and enforcing three of the six Unified Programs set forth in Chapter 9.48 of the Riverside Municipal Code. The elements of the Unified Programs consist of:
>
> a. Hazardous materials release response plans and inventories (Business Plans).
>
> b. Aboveground Petroleum Storage Act (APSA/SPCC), California Fire Code: Hazardous Material Management Plans and Hazardous Material Inventory Statements.
>
> c. California Fire Code: Hazardous Materials Management Plans and Hazardous Material Inventory Statements.

According to Chapter 9.48 of the City of Riverside Municipal Code, a hazardous material is:

> …a material, because of its quantity, concentration, or physical or chemical characteristics, [that] poses a significant present or potential hazard to human health and safety or to the environment if released into the workplace or the environment, or a material specified in an ordinance adopted pursuant to paragraph (f). Hazardous materials include any product or waste that has been abandoned, discarded, or recycled on the property and as a result represents a continuing hazard. A hazardous material also includes any contaminated soil or groundwater.
>
> Hazardous *materials* include all of the following:
>
> a. A substance or product for which the manufacturer or producer is required to prepare a material safety data sheet (MSDS or SDS) pursuant to the Hazardous Substances Information and Training

Act (Chapter 2.5 [commencing with Section 6360] of Part 1 of Division 5 of the Labor Code) or pursuant to any applicable federal law or regulation.

b. A substance listed as a radioactive material in Appendix B of Part 30 (commencing with Section 30.1) of Title 10 of the Code of Federal Regulations, as maintained and updated by the Nuclear Regulatory Commission.

c. A substance listed pursuant to Title 49 of the Code of Federal Regulations.

d. A substance listed in Section 339 of Title 8 of the California Code of Regulations.

e. A material listed as a hazardous waste, as defined by HSC Sections 25115, 25117, and 25316.

f. The governing body of a unified program agency may adopt an ordinance that provides that, within the jurisdiction of the unified program agency, a material not listed by definition as a hazardous materials is a hazardous material for purposes of this article if a handler has a reasonable basis for believing that the material would be injurious to the health and safety of persons or harmful to the environment if released into the workplace or the environment, and requests the governing body of the unified program agency to adopt that ordinance, or if the governing body of the unified program agency has a reasonable basis for believing that the material would be injurious to the health and safety of persons or harmful to the environment if released into the workplace or the environment. The handler or the unified program agency shall notify the secretary no later than 30 days after the date an ordinance is adopted pursuant to this paragraph.

City of Riverside Fire Department

The City is served by the Riverside Fire Department, which includes the Hazardous Materials Team. The Hazardous Materials Team is Type 1 State of California Office of Emergency Services Certified and responds to emergency situations involving spills, unknown chemicals, and unknown gas leaks. Additionally, as a CUPA Participating Agency, the Riverside Fire Department implements the HMBP for all facilities within the incorporated limits of the City (County of Riverside DEH 2021). The HMBP discloses an inventory of hazardous materials stored or handled by facilities and is made available to first responders.

Policy Consistency

The Project would be consistent with GP 2025 and Specific Plan goals and policies as described in Table 3.6-1. It should be noted that these are existing, adopted policies, and that they are subject to update as part of the Project. The Project may result in the storage, transport, or disposal of additional hazardous materials related to the construction and operation of additional residential and mixed-use development; however, all hazardous materials would continue to be handled in compliance with existing federal, state, and local regulations. The Project would not propose activities that would conflict with the policies intended to ensure the safe and legal handling of hazardous materials within the City and would be consistent with such policies.

3.6.4 Methodology and Thresholds of Significance

There are several federal, state, and local laws regulating the management of hazardous materials. Implementation of these laws and the management of hazardous materials are regulated independently by different agencies at all levels of government. Analysts conducted a desktop review of hazards and hazardous material conditions within the City to support the discussion in this section. The analysis of the Project's impacts related to hazards and hazardous materials was

conducted by reviewing the existing hazardous material sites within the City, as well as other existing hazards in the City, and considering the Project to determine if it would exacerbate the existing hazardous conditions or present new conditions that could create a significant hazard to the public or the environment. The Project is analyzed qualitatively at a program level.

Thresholds of Significance

An Initial Study was prepared for the Project in April 2021. The following environmental thresholds were scoped out from detailed review in this section of the Draft EIR because in the Initial Study the impacts were determined to be less than significant:

- Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials
- Be located within an airport land use plan area or, where such a plan has not been adopted, be within two miles of a public airport or public use airport, and result in a safety hazard or excessive noise for people residing or working in the project area
- Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan

In accordance with Appendix G of the State CEQA Guidelines, the Project would be considered to have a significant effect if it would:

- Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment
- Emit hazardous emissions or involve handling hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school
- Be located on a site that is included on a list of hazardous material sites compiled pursuant to Government Code Section 65962.5 and, as a result, create a significant hazard to the public or the environment

3.6.5 Impacts and Mitigation Measures

Impact HAZ-1: The Project would create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment. Implementation of Mitigation Measure MM-HAZ-1 would reduce this impact to less-than-significant levels.

Housing Element Update, Zoning Code Amendments, and Environmental Justice Policies

Hazardous material sites with a potential for contaminated onsite soil and/or groundwater exist within the City, including LUST Cleanup Sites, Cleanup Program Sites, Military Cleanup and UST Sites, and DTSC Cleanup Sites. A detailed description of each type of hazardous material site is found in Section 3.6.2, *Environmental Setting*. In addition, at the time of the preparation of this EIR, four Cortese List sites were found in various locations throughout the City (excluding LUST sites, which

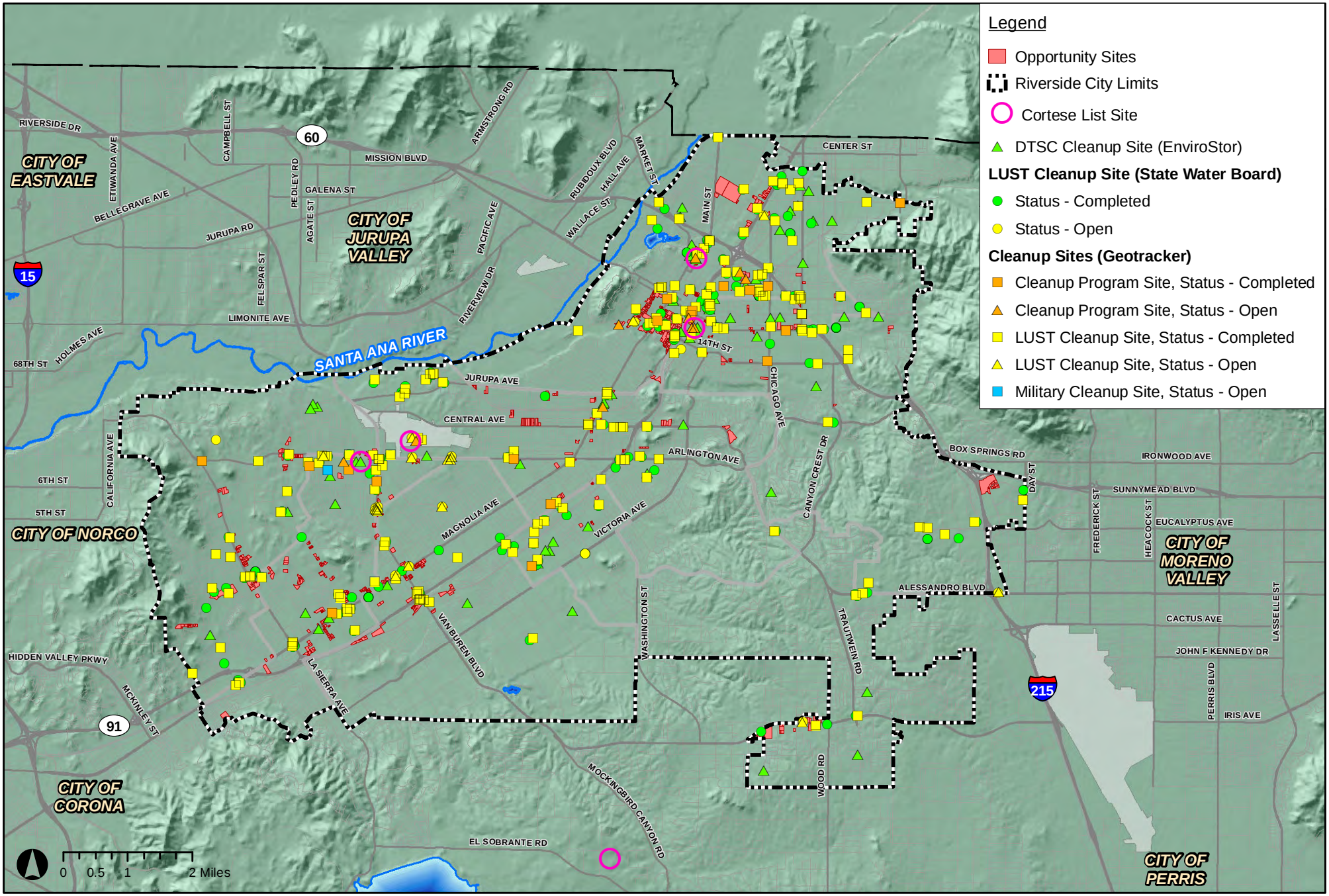
also fit within the Cortese List criteria and can number several dozen throughout the City). The proposed Housing Element Update and Zoning Code amendments would enable future development and the construction of new housing units and mixed-use developments, several of which would be within the footprint of or adjacent to a hazardous material site as identified in Section 3.6.2, *Environmental Setting* (see Figure 3.6-1 for specific locations). Also, as the hazardous materials site data are dynamic and can change over time, there is a potential that future, currently unlisted hazardous material sites could appear within an identified Opportunity Site. Construction of a new residential or mixed-use development would involve ground-disturbing activities such as, but not limited to, grading and excavation. Ground-disturbing activities at a hazardous materials site have the potential to encounter and release contaminated soils or groundwater, and could potentially expose people or the environment to these hazardous materials. The potential to expose hazardous materials during ground disturbance would exacerbate the conditions on site by releasing hazardous materials to the environment (in the form of contaminated media), and therefore would result in impacts related to accidental conditions. Moreover, as part of the proposed Housing Element Update and Zoning Code amendments, industrial uses would be redeveloped into residential and mixed-use development. Hazardous material and Cortese List sites are more likely to be found among industrial uses; therefore, the potential exposure risk to contaminated media would be higher. Depending on the contaminants of concern and the extent of contamination, excavation, and other ground-disturbing activities, construction associated with the proposed Housing Element Update and Zoning Code amendments could encounter contaminated groundwater and/or soil and could result in the release of impacted media to the environment. Opportunity Sites have been identified throughout the City as locations that, with Zoning Code and Specific Plan amendments, could accommodate increased housing units over the existing conditions in order to meet the Regional Housing Needs Assessment as well as provide additional housing. Figure 3.6-1 depicts the locations of the Opportunity Sites and mapped hazardous material sites listed in the hazardous material databases, including sites on the Cortese List. At Opportunity Sites, ground-disturbing construction activities could encounter impacted media associated with a contaminated site. Operation of residential units associated with the Opportunity Sites would not involve ground disturbance and therefore would not result in any potential release of contaminated media. Also, any hazardous material use within residential land uses typically involves common household cleaners in small quantities. Releases are typically localized and cleaned up as they occur.

The Project includes Environmental Justice Policies related to hazardous materials, which ensure that hazardous materials associated with contaminated sites within environmental justice communities are handled and transported properly, and that sites are adequately remediated prior to any new development. This policy also includes several implementing actions that require soil testing at development sites, determination of the presence of hazardous materials or groundwater contamination, and use of the latest technologies when conducting remediation to cause the least harm to the environment.

Additionally, the rezoning and GP 2025 and Specific Plan amendments are not limited only to Opportunity Sites identified for the purpose of satisfying the City's Regional Housing Needs Assessment obligation and, as such, potential future residential or mixed-use development could occur in other areas of the City as part of the Project. Therefore, there is potential for ground-disturbing construction activities to encounter and release contaminated media within or adjacent to an established hazardous material site.

Figure 3.6-1

Location of Existing Hazardous Materials Sites and Proposed Opportunity Sites



Contaminated sites would be remediated/addressed in coordination with and under oversight of the applicable federal, state, and/or local agency (e.g., EPA, SWRCB, DTSC, or local environmental health or fire department). Agencies that provide guidance and oversight on sites with a history of releases can include:

- RWQCB: In case of a perceived threat to surface water or groundwater quality, RWQCB may be contacted.
- DTSC: DTSC may become involved if there is a higher perceived risk to public health or public safety, and/or if environmental justice concerns are involved.
- EPA: EPA may become involved if a site is determined to be under federal jurisdiction (e.g., federal or military uses, chemical[s] released subject to the Toxic Substances Control Act, chemical release at a level that meets or exceeds federal reportable quantities).

The type and extent of the contamination will dictate the appropriate response and remediation for the site and the agencies to be notified. Although these regulatory requirements would be followed, the potential for foreseeable upset and accident conditions involving the release of contaminated media into the environment from the construction of development allowed under the Housing Element Update, Zoning Code amendments, and Specific Plan amendments could create a significant hazard to the public or the environment (Impact HAZ-1). Prior to the commencement of a construction project, Mitigation Measure **MM-HAZ-1** would be implemented, which would require a project-level hazardous material site assessment for construction of the specific project, which would verify the presence or absence of hazardous materials on any Opportunity Site and require subsequent measures if necessary, based on the conditions on the site.

Additionally, buildings and structures scheduled to be demolished that have lead- or asbestos-containing materials would require proper abatement procedures prior to construction activities to reduce potential impacts. Any structures built prior to 1980 and planned for demolition as part of subsequent projects would require an asbestos and lead-based paint survey prior to issuance of construction permits. An asbestos survey will be conducted in accordance with Cal/OSHA (CCR Title 8, Section 1529) and the National Emission Standards for Hazardous Air Pollutants for Asbestos Surveys (40 CFR 61, Subpart M). CCR Title 8, Section 1532.1, “Lead,” and Cal/OSHA requirements will be followed when handling materials containing lead.

Public Safety Element Update and Environmental Justice Policies

The Public Safety Element Update policies and implementing actions address natural hazards; transportation hazards; police, fire, and emergency services; pandemic preparedness and response; homelessness; and climate change and resiliency. The Public Safety Element Update also includes policies and actions related to management of hazardous materials and other safety topics related to emergency access and pedestrian safety that could prompt the construction of roadways, sidewalks, and bike paths (as a means to improving emergency access and safety). Future construction of these physical infrastructure improvements would involve ground-disturbing activities and, if performed near a contaminated site, could produce impacts. However, no specific infrastructure improvements or projects are identified in the Public Safety Element Update. As such, the proposed Public Safety Element Update and Environmental Justice Policies would not result in a potential accidental release of hazardous materials to people or the environment. Impacts would be less than significant.

Mitigation Measures

The potential impacts of the Project described in this section would be reduced to less-than-significant levels with the implementation of the following mitigation measure.

MM-HAZ-1: Conduct project-level hazardous material site assessment for construction of Opportunity Sites involving soil disturbance at sites listed on hazardous materials databases and implement measures.

For development of Opportunity Sites at or adjacent to hazardous materials sites that are listed on hazardous materials databases (see Section 3.6.2, *Environmental Setting*), prior to construction activities associated with any Opportunity Site involving ground disturbance, the specific applicant shall be required to retain a professional hazardous materials specialist specializing in hazardous material impact assessment. The professional hazardous materials specialist shall conduct a project-level analysis to verify the presence or absence of hazardous material conditions (including Cortese List sites) in the vicinity of the ground-disturbance area and if there is potential for existing hazardous material conditions to be disturbed or released as a result of construction activities.

This assessment shall consist of a search for environment-related information present in publicly accessible databases. The information shall be reviewed to determine if the construction footprint or adjacent properties are the site of (or in the vicinity of) contaminated soil or groundwater that has been left in place. If the professional hazardous materials specialist determines that the site (where ground disturbance is to occur) or hazardous material conditions in the vicinity of the site do not pose a risk, additional steps in this measure would not be required.

If the construction footprint or adjacent properties are the site of contaminated soil or groundwater, the professional hazardous materials specialist shall determine the potential risk to construction workers, the public, or the environment from construction activities. The determination of risk would consider, among other factors, regulatory status, the type of project, the type of contaminated property, distance and direction to the project, and appropriate measures. If the hazardous materials specialist concludes that the subsequent project would not create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment, then no further action would be required.

If a site is considered a risk to construction workers, the public, or the environment, the applicant shall implement measures to reduce risk including one or more of the following:

- Implementation of engineering controls and BMPs during construction to minimize human exposure to potentially contaminated soils during construction. Engineering controls and construction BMPs could include, but are not limited to, the following:
    - Contractor employees working on site handling potentially contaminated media shall be certified in the Occupational Health and Safety Administration's 40-hour Hazardous Waste Operations and Emergency Response training.
    - Contractors shall water or mist soil as it is being excavated and stockpiled or loaded onto transport trucks.

  - Contractors shall place any stockpiled soil in areas shielded from prevailing winds or cover stockpiles with staked and/or anchored sheeting.

- Conducting a soil and/or groundwater sampling program to determine the type and extent of contaminants. The sampling program could include:
  - A scope of work for preparation of a Health and Safety Plan that specifies pre-field activity marking of boring locations and obtainment of utility clearance; and field activities, such as identifying appropriate sampling procedures, health and safety measures, chemical testing methods, and quality assurance/quality control procedures
  - Necessary permits for well installation and/or boring advancement
  - A Soil Sampling and Analysis Plan in accordance with the scope of work
  - Laboratory analyses conducted by a state-certified laboratory
  - Disposal processes, including transport by a state-certified hazardous material hauler to a state-certified disposal or recycling facility licensed to accept and treat hazardous waste
- Implementation of a Soil Management Plan. The purpose of a Soil Management Plan is to provide administrative, procedural, and analytical guidance to expedite and clarify decisions and actions if contaminated soils are encountered. Typically, procedures and protocols are included to ensure that contaminated soil is excavated properly and efficiently, and that unacceptable risks are not posed to human health or the environment from contaminated soils. Additionally, the Soil Management Plan shall contain procedures for handling, stockpiling, screening, and disposing of the excavated soil. The Soil Management Plan is a site-specific technical plan that could be required depending on other screening activities conducted (listed above) and is not included as part of this EIR.

If dewatering would be necessary in areas where contaminated groundwater exists, then dewatering procedures could be subject to permit requirements of the National Pollutant Discharge Elimination System. In addition, wastewater profiling shall be conducted to determine proper handling and disposal.

Impact HAZ-2: The Project could emit hazardous emissions or involve handling hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school. Implementation of Mitigation Measure MM-HAZ-1 would reduce this impact to less-than-significant levels.

Housing Element Update, Zoning Code Amendments, and Environmental Justice Policies

As described above under Section 3.6.2, *Environmental Setting*, the City hosts universities (University of California, Riverside; California Baptist University; La Sierra University), a college (Riverside Community College), two school districts (Riverside and Alvord Unified School Districts), and several private and charter schools. Construction activities associated with the Project can occur within the identified Opportunity Sites, as well as in the locations that have been identified for rezoning and Specific Plan amendments to facilitate housing development. As such, there are several locations where ground-disturbing construction could occur within or immediately adjacent to a

hazardous material site (types of hazardous material sites are described in detail under Section 3.6.2, *Environmental Setting*) that are within 0.25 mile of a school site, as depicted on Figure 3.6-2. As the hazardous material site data are dynamic and can change over time, there is a potential that future, currently unlisted hazardous material sites could appear within 0.25 mile of a school and within an identified Opportunity Site. Depending on the contaminant characteristics of the hazardous material site and extent of contamination, soil-disturbance activities conducted during construction could encounter contaminated groundwater and/or contaminated soil. Ground-disturbing activities could release contaminated groundwater and/or soil to the environment within 0.25 mile of a school or, during remediation of a site identified as a hazardous materials site, hazardous materials could be handled within 0.25 mile of a school as the materials are removed, stockpiled, and/or transported. Consequently, affected media or hazardous materials potentially could be handled in proximity of these schools identified on Figure 3.6-2 during construction activities. Implementation of the proposed policies and implementing actions along with Mitigation Measure **MM-HAZ-1** (previously described under Impact HAZ-1) would reduce potential impacts associated with hazardous emissions or handling of hazardous or acutely hazardous materials near a school to less-than-significant levels.

Additionally, as noted above, structures built prior to 1980 to be demolished as a result of the Project could contain hazardous building materials including asbestos and lead-containing materials. However, asbestos and lead-based paint surveys would be required prior to issuance of construction permits. An asbestos survey would be conducted in accordance with Cal/OSHA (CCR Title 8, Section 1529) and the National Emission Standards for Hazardous Air Pollutants for Asbestos Surveys (40 CFR 61, Subpart M). CCR Title 8, Section 1532.1, "Lead," and Cal/OSHA requirements would be followed when handling materials containing lead. Therefore, no impacts related to asbestos or lead-containing materials within 0.25 mile of a school would occur.

Operation of the Project, including the Opportunity Sites, would consist of the operation of housing or mixed-use facilities, which would not include the handling or emission of hazardous or acutely hazardous materials, as operation would not involve ground disturbance. Therefore, no impacts would result from operations.

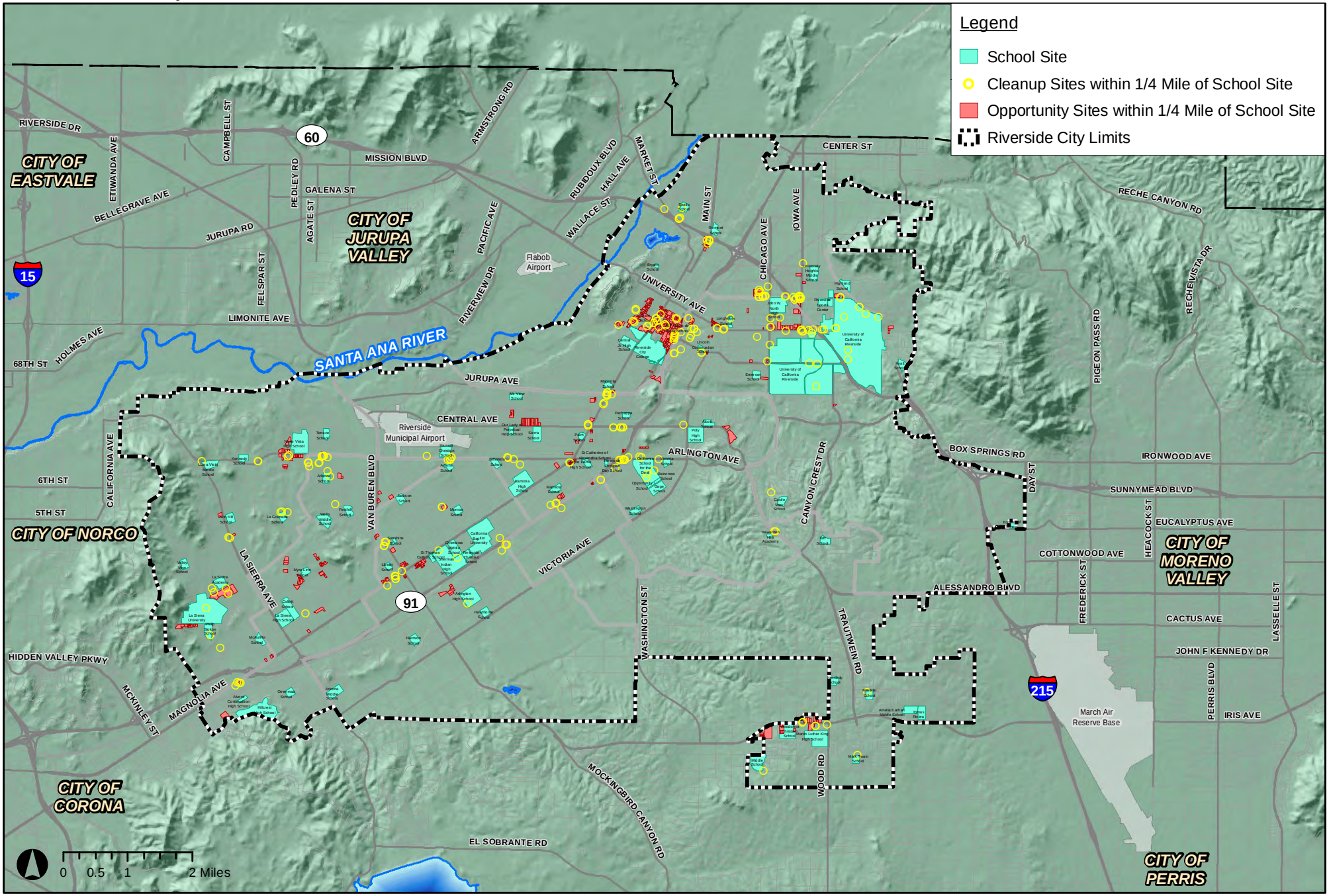
Public Safety Element Update and Environmental Justice Policies

The Public Safety Element Update policies and implementing actions address natural hazards; transportation hazards; police, fire, and emergency services; pandemic preparedness and response; homelessness; and climate change and resiliency. The policies and implementing actions aim to reduce the risk to the community and to ensure protection from foreseeable natural and human-caused hazards.

Public Safety Element policies and implementing actions could affect the design and construction of planned developments, such as addition of design elements related to emergency access and pedestrian safety. As such, Public Safety Element Update policies could result in community benefits; however, no specific infrastructure improvements or projects are identified in the Public Safety Element Update. As this is a policy document, this update would not have any significant indirect or direct environmental effects related to hazardous materials being handled in the vicinity of a school. Impacts would be less than significant.

Figure 3.6-2

Location of Existing Hazardous Materials Sites and Opportunity Sites within One-quarter Mile of a School Site



Mitigation Measures

The potential impacts of the Project described in this section would be reduced to less-than-significant levels with implementation of Mitigation Measure **MM-HAZ-1**, described above under Impact HAZ-1.

Impact HAZ-3: The Project would be located on a site that is included on a list of hazardous material sites compiled pursuant to Government Code Section 65962.5 and, as a result, could create a significant hazard to the public or the environment. Implementation of Mitigation Measure MM-HAZ-1 would reduce this impact to less-than-significant levels.

Housing Element Update, Zoning Code Amendments, and Environmental Justice Policies

As discussed under Section 3.6.2, *Environmental Setting*, four Cortese List sites were found in various locations throughout the City (as identified at the time of the preparation of this EIR). In addition, there are several dozen LUST sites (which are also considered Cortese List sites) throughout the City (see Figure 3.6-1). Also, and as previously mentioned, because the hazardous material site data are dynamic and can change over time, there is a potential that future, currently unlisted Cortese List sites could appear within an identified Opportunity Site in addition to those listed in baseline conditions (Section 3.6.2). Construction activities as a result of the Project would occur at the specifically identified Opportunity Sites as well as other locations in the City that would undergo rezoning or Specific Plan amendments. As such, it is possible that construction could occur within or immediately adjacent to a site fitting the Cortese List site criteria as a result of the Project. As described previously, depending on the contaminant characteristics and extent of contamination, soil disturbance activities conducted during construction could encounter contaminated groundwater and/or contaminated soil and potentially result in impacts on construction personnel and the surrounding environment due to the potential release of hazardous materials and exacerbation of existing conditions. Similar to what was described under Impact HAZ-1, implementation of the proposed policies and implementing actions along with Mitigation Measure **MM-HAZ-1** would reduce potential impacts associated with construction activities occurring within or adjacent to a Cortese List site to less-than-significant levels.

Public Safety Element Update and Environmental Justice Policies

As mentioned previously, the Public Safety Element Update includes policies and implementing actions that aim to reduce the risk to the community and ensure protection from foreseeable natural and human-caused hazards. Public Safety Element Update policies and implementing actions could affect the design and construction of planned developments, such as adding features associated with emergency access and pedestrian safety. However, no specific infrastructure improvements or projects are identified in the Public Safety Element Update. As this is a policy document, this update would not have any significant indirect or direct environmental effects related to future projects being located on a site fitting the Cortese List criteria. Impacts would be less than significant.

Mitigation Measures

The potential impacts of the Project described in this section would be reduced to less-than-significant levels with implementation of Mitigation Measure **MM-HAZ-1**, described above under Impact HAZ-1.

3.7 Land Use and Planning

3.7.1 Introduction

This section describes the environmental and regulatory setting for land use for the Project, provides an analysis of the existing land use conditions, evaluates the Project's consistency with relevant planning policies, and, when necessary, recommends mitigation measures to avoid or lessen the potentially significant impacts. The onsite and surrounding land use conditions and relevant land use policies and regulations, as set forth by the City of Riverside (City), are identified. Information in this section is based upon the *Riverside General Plan 2025* (GP 2025) and the Riverside Municipal Code (RMC). The analysis methods, data sources, significance thresholds, and terminology used are described. Details on the location of the Project and a description of Project activities are included in Chapter 2, *Project Description*, of this EIR.

3.7.2 Environmental Setting

The study area for the analysis of land use and planning is the City. As discussed in Chapter 2, *Project Description*, the City is bounded on the north by the Santa Ana River and the cities of Jurupa Valley, Colton, and Rialto (San Bernardino County); on the south by the unincorporated communities of Woodcrest and Mockingbird Canyon; on the north and east by the unincorporated community of Highgrove and the city of Moreno Valley; and on the west by the unincorporated community of Home Gardens and the cities of Norco and Corona. State Route (SR-) 91, a major regional freeway, traverses the City in an east-west orientation, while SR-60 and Interstate (I-) 215 traverse the City's eastern portion in a north-south orientation. The Riverside Municipal Airport is within the western portion of the City limits. March Air Reserve Base and Flabob Airport are proximate to Riverside, but outside the City limits.

The City's existing corporate boundaries include approximately 51,310 gross acres. The Northern Sphere of Influence (SOI) encompasses approximately 4,088 gross acres—from the existing City limits to the San Bernardino County line and east to the Box Springs Mountain Regional Park—and includes the unincorporated Highgrove community. The Southern SOI encompasses approximately 36,826 gross acres and extends from the City's southern border to the Cajalco Ridge crest, just south of Cajalco Road. The area includes the unincorporated communities of El Sobrante, Glen Valley, and Woodcrest, and limited portions of Gavilan Hills and Lake Mathews. In 2006, the Riverside Local Agency Formation Commission conducted a review of the City's SOI areas and affirmed the boundaries identified above. Overall, the City's Planning Area encompasses approximately 92,224 gross acres.

Existing Land Use

As shown on Figure 3.7-1, similar to most cities, the City of Riverside and its SOI contain a diverse mix of existing land uses. Urban land uses (residential, commercial, office, and industrial) are concentrated in the north of City, near the alignments of SR-91, SR-60, and I-215. The recently adopted Northside Specific Plan has made changes to the SOI at the northernmost part of the City. Most of the City's moderate-density residential development is north and west of SR-91. Land south and east of Victoria Avenue is predominantly characterized by rural or semi-rural land uses

(agricultural, open space, and residential uses at less than three units per acre). The City's network of arroyos, its hillsides and ridgelines are the predominant features of the southeastern areas. The University of California at Riverside straddles a section of I-215 in the northeast. The Santa Ana River forms most of the Planning Area's northern border.

Riverside is noted for its well-established residential neighborhoods. The City has 28 distinct neighborhoods, each with its own history, architecture, housing types, and amenities. Many of these established neighborhoods are well maintained and contain historical resources. The diverse urban, suburban, and rural fabric of many of these neighborhoods has been woven over time and reflects the land use and development policies implemented over the City's history.

3.7.3 Regulatory Setting

Federal

No federal land use regulations are applicable to the Project's land use impact analysis.

State

State Planning Law and California Complete Streets Act

State planning law (California Government Code Section 65300) requires every city in California to adopt a comprehensive, long-term general plan for the physical development of the city and any land outside its boundaries (SOI) that in the planning agency's judgment bears relation to its planning. A general plan should consist of an integrated and internally consistent set of goals and policies that are grouped by topic into a set of elements and are guided by a citywide vision. State law requires that a general plan address eight topics (land use, circulation, housing, conservation, open space, noise, safety, and environmental justice), but allows some discretion on the arrangement and content of the elements. Additionally, each of the specific and applicable requirements in the state planning law should be examined to determine if there are environmental issues in the community that the general plan should address, including hazards and flooding.

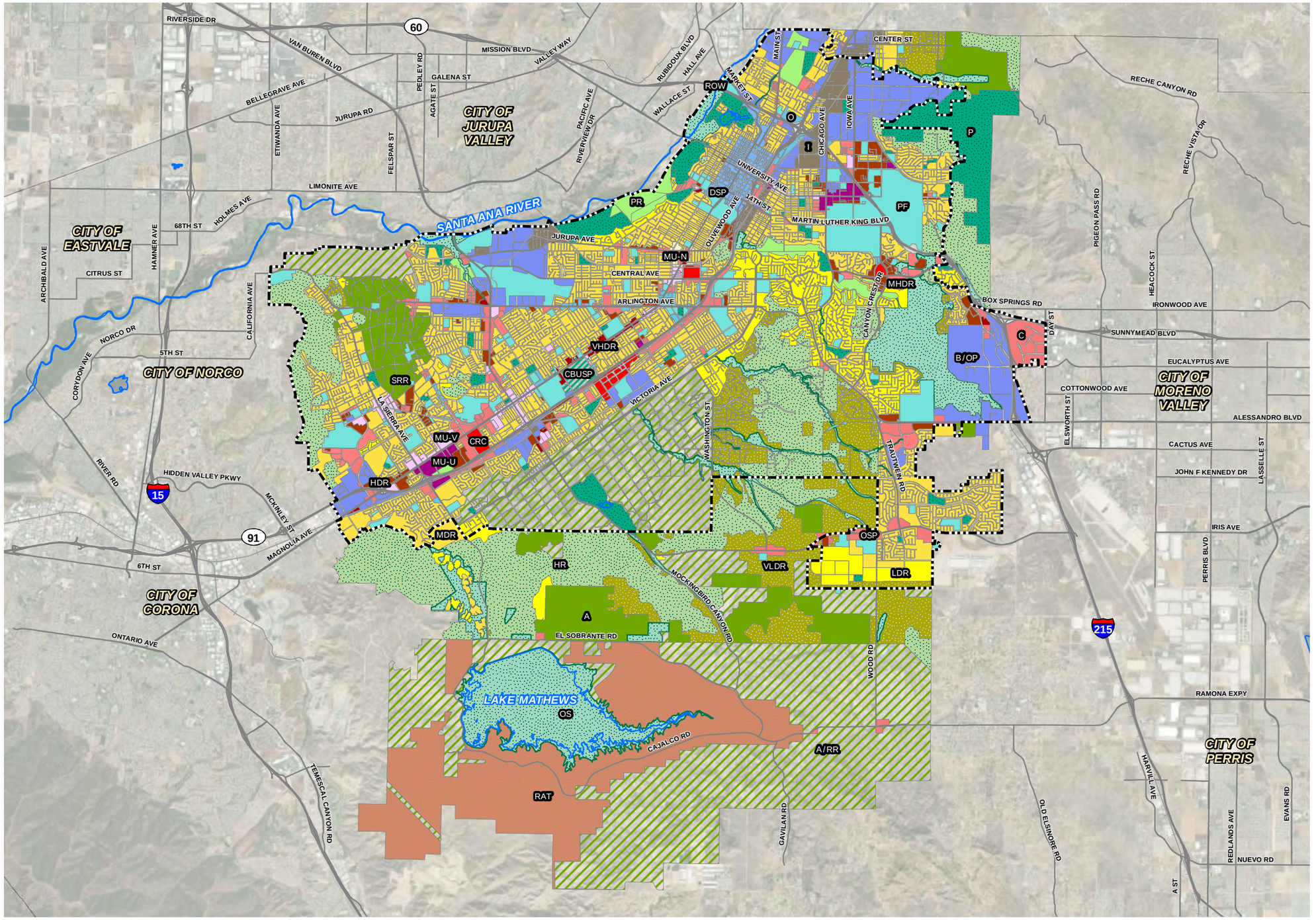
On September 30, 2008, Assembly Bill 1358, the California Complete Streets Act, was signed into law and became effective January 1, 2011. Assembly Bill 1358 places the planning, designing, and building of complete streets into the larger planning framework of the general plan by requiring jurisdictions to amend their circulation elements to plan for multimodal transportation networks.

California Government Code Section 65450 et seq.

Section 65450 et seq. of the California Government Code authorizes cities to prepare, adopt, and administer specific plans for portions of their jurisdictions, as a means of implementing a city's general plan. All specific plans must comply with Sections 65450–65457 of the Government Code. The Project complies with all requirements mandated by state law.

California Constitution, Article XI, Section 7

Article XI, Section 7, of the California State Constitution gives cities and counties the authority to regulate land use. California State Planning and Land Use Law (Government Code Section 65000 et seq.) sets forth minimum standards for the regulation of land use at the city and county level.



Legend

Riverside City Limits

General Plan Land Use Designations

- A - Agricultural
- A/RR - Agricultural/Rural Residential
- B/OP - Business/Office Park
- C - Commercial
- CBUSP - CBU Specific Plan
- CRC - Commercial Regional Center
- DSP - Downtown Specific Plan
- I - Industrial
- VLDR - Very Low Density Residential
- LDR - Low Density Residential
- HDR - High Density Residential
- MDR - Medium Density Residential
- MHDR - Medium High Density Residential
- VHDR - Very High Density Residential
- HR - Hillside Residential
- MU-N - Mixed Use - Neighborhood
- MU-U - Mixed Use - Urban
- MU-V - Mixed Use - Village
- O - Office
- SRR - Semi Rural Residential
- OS - Open Space/Natural Resources
- OSP - Orangecrest Specific Plan
- P - Public Park
- PF - Public Facilities/Institutions
- PR - Private Recreation
- RAT - K-RAT Core Habitat Preserve Areas

0 1 2 Miles

1:115,000

Figure 3.7-1
General Plan Land Use Designations
Riverside General Plan Update

Regional Housing Needs Assessment

State housing law mandates the Regional Housing Needs Assessment (RHNA) as part of the periodic process of updating local general plan housing elements. The RHNA quantifies the housing need for specified planning periods for each jurisdiction within its planning area and is prepared based upon Senate Bill 375 requirements. The intent of Senate Bill 375 and the RHNA process is to improve the jobs-housing balance in communities, ensure the availability of decent affordable housing for all income groups, and achieve sustainability through long-term strategic land use planning. The current (6th cycle) Final RHNA Allocation Plan was adopted by the Southern California Association of Governments (SCAG) on March 4, 2021.

Jurisdictions use the RHNA in land use planning and local resource allocation, and for determining housing needs resulting from population, employment, and household growth. The RHNA is not intended to encourage or promote growth, but rather to ensure individual communities can plan for anticipated growth, so that the region can grow in ways that enhance quality of life, improve access to jobs, promote transportation mobility, and address social equity.

In the 2021–2029 Housing Element Cycle (6th cycle), the City's RHNA obligation is a minimum of 18,458 new dwelling units (DUs). The City's previous Housing Element was adopted in 2017 and runs through 2021, thus the need for this update. The Housing Element cycle covering the 2013–2021 period included an RHNA obligation of 8,283 units, of which only a small portion were built during the last 8 years. Given that 100 percent of potential housing sites will not be developed to full potential, the City has provided a buffer of approximately 5,500 DUs (approximately 30 percent over and above the RHNA obligation), and the City will identify sites to accommodate up to 24,000 new homes for the 2021–2029 RHNA cycle. This strategy ensures that the City will maintain adequate capacity for a minimum of 18,458 units despite any future shortfall resulting from underdevelopment of sites with respect to zoned capacity. However, to ensure that this analysis is robust and inclusive, the impacts are analyzed according to the maximum theoretical density development scenario of 31,564 DUs.

Regional

Southern California Association of Governments Regional Comprehensive Plan

SCAG is a council of governments representing Imperial, Los Angeles, Orange, Riverside, San Bernardino, and Ventura Counties. SCAG is the federally recognized metropolitan planning organization for this region, which encompasses over 38,000 square miles. SCAG is a regional planning agency and a forum for addressing regional issues concerning transportation, the economy, community development, and the environment. SCAG is also the regional clearinghouse for projects requiring environmental documentation under federal and state law. In this role, SCAG reviews proposed development and infrastructure projects to analyze their impacts on regional planning programs. As the Southern California region's metropolitan planning organization, SCAG cooperates with the South Coast Air Quality Management District (SCAQMD), the California Department of Transportation, and other agencies in preparing regional planning documents. SCAG has developed regional plans to achieve specific regional objectives. The plans most applicable to the Project are discussed below. This section addresses the Project's consistency with the applicable regional planning guidelines and policies.

2020–2045 Regional Transportation Plan/Sustainable Communities Strategy

On May 7, 2020, SCAG's Regional Council adopted the 2020–2045 Regional Transportation Plan (RTP)/Sustainable Communities Strategy (SCS) (SCAG 2020) (also known as *Connect SoCal*) for federal transportation conformity purposes only. The Regional Council approved the 2020–2045 RTP/SCS on September 3, 2020. The RTP/SCS is a long-range visioning plan that balances future mobility and housing needs with economic, environmental, and public health goals. The RTP/SCS charts a course for closely integrating land use and transportation so the region can grow smartly and sustainably.

The goals of the RTP/SCS fall into four core categories: economy, mobility, environment, and healthy/complete communities. Table F-1 in Appendix F-1 outlines the RTP/SCS goals and adopted growth forecasts that are relevant to the Project.

South Coast Air Quality Management Plan

While the California Air Resources Board is responsible for the regulation of mobile emission sources within the state, local air quality management districts and air pollution control districts are responsible for enforcing standards and regulating stationary emission sources. SCAQMD is the regional agency responsible for the regulation and enforcement of federal, state, and local air pollution control regulations in the South Coast Air Basin, where the Project is located. SCAQMD operates monitoring stations in the South Coast Air Basin, develops rules and regulations for stationary sources and equipment, prepares emissions inventory and air quality management planning documents, and conducts source testing and inspections. SCAQMD's Air Quality Management Plans include control measures and strategies to be implemented to attain the state and federal ambient air quality standards in the South Coast Air Basin. SCAQMD then implements these control measures as regulations to control or reduce criteria pollutant emissions from stationary sources or equipment. Applicable Rules Emissions that would result from stationary and mobile sources during operation of the Project may be subject to SCAQMD rules and regulations, which include Rule 2202 – On-Road Motor Vehicle Mitigation Options. The purpose of this rule is to provide employers with a menu of options to reduce mobile-source emissions generated from employee commutes to comply with federal and state Clean Air Act requirements, Health and Safety Code Section 40458, and Section 182(d)(1)(B) of the federal Clean Air Act. This rule applies to any employer who employs 250 or more employees on a full- or part-time basis at a worksite for a consecutive 6-month period calculated as a monthly average, except as provided in subdivision (l) of the rule.

Local

Riverside General Plan 2025

GP 2025 was adopted in November 2007 and considers the continued growth of the City to 2025. Most of the objectives and policies relevant to the Project are contained within GP 2025's Land Use and Urban Design Element (City of Riverside 2019), Circulation and Community Mobility Element (City of Riverside 2018a), Arts and Culture Element (City of Riverside 2007a), Public Safety Element (City of Riverside 2018b), Noise Element (City of Riverside 2018c), Air Quality Element (City of Riverside 2007b), and Historic Preservation Element (City of Riverside 2012). GP 2025 serves as the major tool for directing growth within the City and presents a comprehensive plan to accommodate

the City's growing needs. GP 2025 is intended to implement the community's vision for what Riverside can be in 2025.

Land Use and Urban Design Element

In compliance with California Government Code Section 65302(a) requirements, the Land Use and Urban Design Element includes existing and proposed land uses as well as their relationship to the City's vision and goals. The element incorporates objectives and policies for land development and usage.

Land Use Designations

The GP 2025 Land Use Policy Map depicts the various types and distribution of land uses planned for the City. The Land Use Policy Map depicts nine residential land use types, which are summarized below.

- Agricultural/Rural Residential (A/RR): The A/RR designation is intended for extremely low-density residential uses at a maximum gross density of 0.2 DU per acre (DU/AC) (or 1 DU per 5 acres). The A/RR designation is characterized by residential development sited on large agricultural and citrus parcels and is intended to further the intent of Proposition R and Measure C, which were approved by Riverside voters in 1979 and 1987, respectively.
- Hillside Residential (HR): The HR designation is intended for residential hillside development in the City's ecologically sensitive and visually prominent hillside areas at a maximum gross density of 0.50 DU/AC (or 0.63 DU/AC with a Planned Residential Development Permit). The HR designation is applied to most hillside areas with slopes exceeding 15 percent and is also intended to further the intent of Proposition R and Measure C.
- Semi-Rural Residential (SRR): The SRR designation is intended for residential uses in areas of the City that have historically supported large-lot, single-family development and auxiliary animal-keeping (i.e., horses). This use allows a maximum gross density of 2.1 DU/AC (up to 3.3 DU/AC with a Planned Residential Development Permit). The SRR designation is generally applied to the central portion of the La Sierra neighborhood.
- Very Low Density Residential (VLDR): The VLDR designation is intended for large-lot, single-family residential uses with a maximum gross density of 2.0 DU/AC (up to 3.2 DU/AC with a Planned Residential Development Permit). This land use is intended for areas that have not historically supported auxiliary animal keeping.
- Low Density Residential (LDR): The LDR designation is intended for large-lot, single-family residential uses with a maximum gross density of 4.1 DU/AC (up to 6 DU/AC with a Planned Residential Development Permit). This land use is intended for lands developed or to be developed with the full range of urban services available in the City.
- Medium Density Residential (MDR): The MDR designation is intended for small-lot, single-family homes, townhouses, and row houses with a maximum gross density of 6.2 DU/AC (up to 8 DU/AC with a Planned Residential Development Permit).
- Medium-High Density Residential (MHDR): The MHDR designation is intended for the development of small-lot, single-family homes, townhouses, row houses, and permanent-style mobile home parks. This designation also allows multi-family units (i.e., condominiums and small apartments) and allows for a maximum gross density of 14.5 DU/AC.

- High Density Residential (HDR): The HDR designation is intended for multi-family condominiums, row houses, and apartments with a maximum gross density of 29 DU/AC. Senior housing and multi-family clusters are also permissible under this designation.
- Very High Density Residential (VHDR): The VHDR designation is intended for multi-family condominiums and apartments with a maximum gross density of 40 DU/AC. Student housing, senior housing, and multi-family clusters are also permissible under this designation.

The following land use designations also accommodate housing:

- Mixed-Use – Neighborhood (MU-N): This designation provides opportunities for primarily neighborhood-serving commercial uses, with limited low-intensity residential uses in a mixed-use environment. This designation is intended to preserve the existing housing stock and residential character of neighborhoods while allowing for the development of new housing opportunities, fostering adaptive reuse of underutilized property, and encouraging pedestrian-oriented retail and service uses. The focus of the development and design standards is on ensuring that new and infill development are distributed and designed in a manner sensitive in scale and design to the street environment and adjacent single-family residential areas. The maximum allowable intensity for the commercial component is 1.0 FAR; for any residential component, the maximum density is 10 DU/AC.
- Mixed-Use – Village (MU-V): This designation allows for retail, office, and residential uses in the same building, with horizontal integration as appropriate. Land uses with maximum heights of two to three stories are allowed. The maximum permitted residential density is 30 DU/AC, with up to 40 DU/AC permissible in areas accessible to public transportation. The maximum allowed FAR is 2.5.
- Mixed-Use – Urban (MU-U): This designation allows for activity center/activity node mixed-uses; and retail, office, and residential uses in the same building or horizontal integration on the same parcel. Land uses with maximum heights of three to four stories that emphasize entertainment, employment, and student-oriented uses are allowed. The maximum permitted residential density is 40 DU/AC, with up to 60 DU/AC permissible in areas accessible to public transportation. The maximum allowed floor-area ratio (FAR) is 4.0.

The GP 2025 Land Use Element policies relevant to the Project are outlined in Table F-1 in Appendix F-1.

Housing Element

In the 6th cycle, the City's RHNA obligation is a minimum of 18,458 new DUs. The City's previous Housing Element was adopted in 2017 and runs through 2021, thus the need for this update. The Housing Element cycle covering the 2013–2021 period included an RHNA obligation of 8,283 units, of which only a small portion were built during the last 8 years.

Given that 100 percent of potential housing sites will not be developed to full potential, the City has provided a buffer of approximately 5,500 DUs (approximately 30 percent over and above the RHNA obligation), and the City will identify space for up to 24,000 new homes for the 2021–2029 RHNA cycle. This next update cycle comes when California faces a major statewide housing shortage that is affecting all Californians by raising the price of housing and the cost of construction, and increasing homelessness.

The main components of the Housing Element Update are dictated by state law and typically must include:

- A detailed analysis of the City's demographic, economic, and housing characteristics
- A comprehensive analysis of the barriers to producing and preserving housing
- A review of the City's progress in implementing its adopted housing policies and programs
- An identification of goals, objectives, and policies, in addition to a full list of programs that will help the City carry out the plan's vision
- A list of sites that could accommodate new housing, demonstrating the City's ability to meet its target number of new homes established in the RHNA

The updated Housing Element must show the exact locations where future housing can be built, called Opportunity Sites, and identify the potential number of residential units that can be built at those locations.

Because the Housing Element is updated every 8 years, the 5th cycle Housing Element provides a foundation for this 6th cycle update. This update gives the City the opportunity to evaluate the previous Housing Element to determine which parts have been effective and which should be improved.

Proposed guiding principles and policies to be included in the Housing Element Update are listed in Appendix B. The Housing Element Update also includes Environmental Justice Policies to facilitate equitable distribution of housing throughout the City, also described in Appendix B.

Public Safety Element

The goal of a jurisdiction's Public Safety Element is to reduce the potential short- and long-term risk of death, injuries, property damage, and economic and social disruption resulting from fires, floods, droughts, earthquakes, landslides, climate change, and other hazards. Other locally relevant safety issues—such as emergency response, hazardous materials spills, crime reduction, and response to global pandemics like COVID-19—may also be included. The Public Safety Element directly relates to topics mandated in the Land Use and Urban Design and Open Space and Conservation Elements as well as a key consideration for the Environmental Justice Policies of GP 2025. The Public Safety Element must identify hazards and ways to reduce those hazards to guide local decisions related to zoning and development regulations. Policies and implementable actions may include methods for minimizing risks, as well as ways to minimize economic disruption and speed up recovery following disaster. The City's update to the Public Safety Element will identify public safety issues and needs anticipated to be of ongoing concern to people in the City. The Public Safety Element will ensure that the City takes action to reduce natural and man-made hazards and safety threats as well as respond quickly to any public safety incident.

The guiding principle and policies that are proposed for inclusion in the Public Safety Element Update are listed in detail in Appendix B.

Riverside Municipal Code (RMC)

Zoning defines and provides parameters for various types of land uses in a community, including but not limited to commercial, residential, and industrial. The RMC regulates municipal affairs within the City's jurisdiction including, without limitation, subdivision regulations (codified in RMC Title

18) and zoning regulations (codified in RMC Title 19). The purpose of RMC Title 18, Subdivisions, is to regulate and control the design and improvement of subdivisions.

The purpose of RMC Title 19, Zoning, is to encourage, classify, designate, regulate, restrict, and segregate the highest and best location and use of buildings, structures, and land for agriculture, residence, commerce, trade, industry, water conservation, or other purposes in appropriate places; to regulate and limit the height, number of stories, and size of buildings and other structures hereafter erected or altered; to regulate and determine the size of yards and other open spaces; and to regulate and limit the density of population and for such purpose to divide the City into zones of such number, shape, and area as may be deemed best suited to carry out these regulations and provide for their enforcement. Furthermore, such regulations are deemed necessary to encourage the most appropriate use of land; to conserve and stabilize the value of property; to provide adequate open spaces for light and air and to prevent and fight fires; to prevent undue concentration of population; to lessen congestion on streets; to facilitate adequate provisions for community utilities and facilities such as transportation, water, sewerage, schools, parks, and other public facilities; and to promote the public health, safety, and general welfare.

Zoning Code Amendments

As part of the Project, areas of the City are proposed for rezoning to allow for fulfilment of the City's RHNA obligation. The proposed Zoning Code and Specific Plan amendments would include a variety of multi-family residential and mixed-use zoning designations, which would provide for development of some lower-level commercial/retail, office, and potentially live/work uses. Existing zoning is illustrated on Figure 2-6 in Chapter 2, *Project Description*. Areas proposed for rezoning are illustrated on Figure 2-7 in Chapter 2.

The Project involves 239 acres that do not require zoning changes and 581 acres that would require general plan amendments, Zoning Code changes, and Specific Plan amendments, for a total of 870 parcels comprising 820 acres.

The implementation of this Project could result in an increase of up to 31,564 new DUs and 3,181,930 square feet of nonresidential development, or up to 31,175 DUs and 1,433,460 square feet over existing conditions. Rezoning of the Opportunity Sites would also result in non-residential development in those areas to be designated as mixed-use. Mixed-use zones include:

- Mixed-Use Urban (MU-U/MU-U-TA)
- Mixed-Use Village (MU-V/MU-V-TA)

The "TA" designation means Transit Adjacent, applies to parcels within 0.5 mile of a transit stop, and provides a density bonus.

Specific Plan Amendments

In addition to the Zoning Code amendments, the Housing Element Update would require amendments to nine of the City's adopted Specific Plans. The following Specific Plans would require updates, including mapping and land use changes, to accommodate Opportunity Sites that have been identified within their boundaries. Figure 2-8 in Chapter 2, *Project Description*, illustrates the Specific Plans subject to change. Additionally, specific policies with application to land use are discussed in Table F-3 in Appendix F-1.

Canyon Springs Business Park Specific Plan

Canyon Springs is a regionally oriented mixed-use development that combines commercial, office, entertainment, and recreational uses within a total gross area of approximately 222 acres. The Canyon Springs Business Park Specific Plan includes 10 planning areas for a commerce center of retail commercial, office, and recreation uses with appropriate public, quasi-public, and private services and facilities necessary to accommodate shopping, employment, service, and recreational needs.

Downtown Specific Plan

The Downtown Specific Plan area consists of approximately 640 acres in the northern portion of the City and encompasses Downtown Riverside and its immediate surroundings. The Downtown Specific Plan was created to facilitate and encourage development and improvements that help the community's vision of Downtown. The goal of the specific plan is to also strengthen Downtown as a distinctive center for the citizens of Riverside with attractive streets, enjoyable public spaces, historic neighborhoods, lively mixed-use commercial areas, and a variety of housing options and residential environments. These important Specific Plan features are consistent with the goals and policies set forth in GP 2025.

Hunter Business Park Specific Plan

The Hunter Business Park Specific Plan describes a planned industrial park consisting of approximately 1,300 acres of industrial and related uses, northeast of Downtown Riverside. It addresses planning goals relevant to property owners, future tenants, developers, and the City of Riverside; defines the development framework for the Specific Plan area (SPA); and establishes the design guidelines, development criteria, and implementation measures necessary to implement the Hunter Business Park Specific Plan. The Hunter Business Park Specific Plan aims to create a high-quality industrial park environment that improves automobile and pedestrian access while maintaining rail access. This Specific Plan aims to enhance Hunter Park's unique features including Hunter Park, Box Springs Mountain Regional Park, and City vistas, and establish appropriate implementation programs to provide infrastructure improvements.

La Sierra University Specific Plan

Encompassing 531 acres in the western portion of the City, the plan for the La Sierra University Specific Plan envisions a mixed-use community. This community would accommodate the expansion of the La Sierra campus and development of the university's surplus lands, east and south of the existing campus, to help support the university's endowment. The plan includes employment opportunities at La Sierra University (projected to expand from 1,500 to 5,000 students), as well as potential jobs in a new industrial park and in commercial areas anticipated to take on a "town-gown" (uses appropriate for campus users and the community) character. A diverse mix of residential types and densities is also envisioned, providing housing for university faculty, staff, retirees from the Seventh-day Adventist community, and others seeking housing opportunities. In an effort to contribute to the mixed-use character of the area, an open space and circulation network has been planned as a means of encouraging pedestrian circulation and use of alternative modes of transportation.

Magnolia Avenue Specific Plan

This plan, developed in 1999 as part of the Magnolia/Market Corridor Study, focuses on the portion of Magnolia Avenue from the western City limits to the north side of Riverside Community College, at the southern edge of Downtown, for an area totaling approximately 1,588 acres. This Specific Plan is intended to facilitate and encourage development and improvements along Magnolia Avenue to help realize the community's vision for the corridor. It is a tool for developers, property owners, City staff, and decision-makers.

Riverside Marketplace Specific Plan

The Riverside Marketplace SPA totals approximately 200 acres. It establishes standards and guidelines for development within the plan area with the purpose of creating incentives to redevelop the Riverside Marketplace area, preserves and enhances historic buildings and elements, beautifies the entrances to Downtown and University Avenue, provides additional commerce and employment opportunities for the Eastside community, and complements the redevelopment efforts occurring within the Downtown area.

University Avenue Specific Plan

The plan area consists of approximately 179 acres and is on University Avenue, a main thoroughfare connecting the University of California, Riverside campus and Riverside's historic Downtown. The Specific Plan promotes the long-term viability and rejuvenation of the University Avenue corridor, establishes and maintains a viable mix of land uses, encourages high-quality development, accommodates pedestrian activity, maintains visual continuity, recognizes the interdependence of land values and aesthetics.

Northside Neighborhood and Pelissier Ranch Specific Plan

The SPA covers approximately 2,000 acres within the City of Riverside, the city of Colton, and unincorporated Riverside County. The High-Density Residential designation provides opportunities to develop row houses, condominiums, and apartments that could include senior housing and multi-family. High-Density Residential is adjacent to the Central Park and within Colton on the Pellissier Ranch property, adjacent to the Santa Ana River. Medium-density residential is primarily in the southern and eastern portions of the Northside neighborhood. The Specific Plan includes a new area of Medium-High-Density Residential in the City, south of Center Street, between Main Street and Orange Street as well as a new Medium-Density Residential area on land on the west side of Orange Street, south of the proposed Trujillo Adobe Heritage Village and north of Reid Park. The Specific Plan also accommodates mixed-use neighborhoods.

California Baptist University Specific Plan

The Specific Plan provides for California Baptist University (CBU) to evolve to a more urban-intensity campus, with educational, residential, recreational, and other campus life facilities closely integrated to best support CBU's mission and vision. To achieve CBU's goal of 12,000 enrolled students by the year 2025, new and reconfigured educational, housing, administrative support, athletic, and other facilities will be required. A single zoning district—the CBU Specific Plan Zone (CBUSP)—regulates land uses. Two subdistricts are defined—CBUSP-1 and CBUSP-2—to regulate land use, building height, density, and setbacks. CBU owns and manages several apartment complexes within the Specific Plan boundaries. Student housing is permitted by right in subdistrict

CBUSP-1 and with a minor conditional use permit in subdistrict CBUSP-2. Single-family residential is permitted in both subdistricts.

3.7.4 Methodology and Thresholds of Significance

This analysis evaluates whether the Project would physically divide an established community and the consistency or compliance of the Project with relevant land use plans, policies, and regulations.

Local plans and policies (including general plans, Specific Plans, zoning ordinances, land use and zoning maps, etc.) were reviewed to analyze the consistency of the Project with such plans in accordance with the approach described above. The analysis determines if there is the potential for physical incompatibilities between the Project and adjacent land uses based on potential conflict.

Thresholds of Significance

In accordance with Appendix G of the State CEQA Guidelines, the Project would be considered to have a significant effect if it would:

- Cause a significant environmental impact by physically dividing an established community
- Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect

3.7.5 Impacts and Mitigation Measures

Impact LU-1: The Project would not physically divide an established community. This impact would be less than significant.

Housing Element Update, Zoning Code Amendments, and Environmental Justice Policies

The Project involves 239 acres that do not require zoning changes and 581 acres that would require general plan amendments, Zoning Code changes, and Specific Plan amendments, for a total of 870 parcels comprising 820 acres. The implementation of this Project could result in an increase of up to 31,564 new DUs and 3,181,930 square feet of nonresidential development, or up to 31,175 DUs and 1,433,460 square feet over existing conditions.

The Project's intent is not to generate the full build-out housing within the planning cycle, but to provide the capacity (i.e., through land use designation and zoning) for the housing market to adequately address housing needs for all income groups and direct that capacity where planned growth is best suited to occur. However, to provide a conservative analysis for the purposes of environmental review, this EIR assumes full build-out of Project capacity by 2029.

The physical division of an established community could occur if a major road (expressway or freeway, for example) were built through an existing community or neighborhood, or if a major development was built that was inconsistent with the land uses in the community such that it divided the community. The environmental effects caused by such a facility or land use could include obstruction or disruption of access to services, schools, or shopping areas.

Rezoning of the Opportunity Sites could result in non-residential development in those areas to be designated as mixed use. The Project involves 239 acres that do not require zoning changes and 581

acres that would require general plan amendments, Zoning Code changes, and Specific Plan amendments, for a total of 870 parcels comprising 820 acres. With Zoning Code and Specific Plan amendments, the number of allowed DUs on Opportunity Sites that are not currently zoned for housing would total 31,564. Most of the future uses would occur through infill development, redevelopment, and/or adaptive reuse, as not all Opportunity Sites are currently zoned to allow for housing development.

The Project would focus development in already urbanized parts of the City, near existing infrastructure, rather than spreading growth to the urban fringes. Additionally, no major roadway (e.g., expressway or freeway) that would traverse an existing community or neighborhood is proposed under the Project. Therefore, Project implementation would not physically divide an established community.

Opportunity Sites have been identified throughout the City, rather than concentrated in a single area, and thus would not divide an established community. Furthermore, as described in Chapter 2, *Project Description*, project build-out would achieve the City's goal to fulfill the City's RHNA. The City reviews development proposals to verify compliance with RMC Title 19 and the most appropriate use of land, and to prevent nonconforming uses. Future development of Opportunity Sites would be subject to RMC Title 19 design requirements and development, site location, and operational standards. Project implementation would not result in the physical division of an existing community and a less-than-significant impact would occur.

Additionally, the Housing Element Update includes Environmental Justice Policies to facilitate equitable distribution of housing throughout the City. These policies promote housing in response to the needs and desires of the residents of environmental justice communities as well as facilitate the development of affordable and supportive housing. These policies would not divide an established community and impacts would be less than significant.

Public Safety Element Update and Environmental Justice Policies

Implementation of the Public Safety Element Updates and related Environmental Justice Policies is policy-based and does not identify specific infrastructure projects. The Public Safety Element Updates and related Environmental Justice Policies provide policies to reduce the potential short- and long-term risk of death, injuries, property damage, and economic and social disruption resulting from fires, floods, droughts, earthquakes, landslides, climate change, and other hazards. The Public Safety Element Update would not physically divide an established community because proposed policies would likely improve physical connections within established communities and would not result in new physical divisions.

The Public Safety Element Update policies and implementing actions address natural hazards; transportation hazards; police, fire, and emergency services; pandemic preparedness and response; homelessness; and climate change and resiliency. These policies and implementing actions aim to reduce the risk to the community and to ensure protection from foreseeable natural and human-caused hazards. Proposed new residential and mixed-use development would be predominantly located in more urbanized areas of the City. Public Safety Element policies and implementing actions would encourage the design and construction of planned developments, such as addition of design elements related to emergency access and pedestrian safety. Implementation of the Public Safety Element Update would update the RMC to minimize the potential risk of development in areas of public safety (e.g., flood risk, fire hazard). This update would not have any significant environmental effects related to land use and impacts would be less than significant.

Impact LU-2: The Project would not cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect. The impact would be less than significant.

Housing Element Update, Zoning Code and General and Specific Plan Amendments, and Environmental Justice Policies

The City regulates land uses within Riverside through its zoning and subdivision ordinances and, indirectly, through the goals and policies of its general plan that guide development. Accordingly, the City is the only entity with jurisdiction over the Project with regard to land use and the avoidance of environmental effects. At a project-specific level, individual development projects under the Project may be subject to federal and state regulations to protect waters of the U.S.

The Housing Element Update addresses the state mandate to update the housing element of the local general plan and accommodate the housing obligation designated in the SCAG 6th cycle of the RHNA, adopted by SCAG in March 2021. The RHNA quantifies the need for housing within each jurisdiction during specified planning periods. The 6th cycle Housing Element Update, and the RHNA, approved in March 2021, specifically identifies the need for 18,458 additional homes in the City, including 4,861 very low-income, 3,064 low-income, and 3,139 moderate-income units; 7,394 units would be above moderate-income housing (SCAG 2021).

The previously adopted Housing Element, covering the 2013–2021 period, included an RHNA obligation of 8,283 units, of which only a small portion was built during the last 8 years. The increase in the City's RHNA housing number is reflective of the state's current housing crisis, due in part to the difficulty associated with enabling the construction of new homes to keep up with the need for them. In addition, the City will need to identify space for the obligation of 18,458 units plus an additional approximately 5,500 units to account for some sites that may not be developed to full potential (no net loss requirement), for a total of approximately 24,000 new homes for the 2021–2029 cycle, though 31,547 are used for impact analysis evaluation.

Opportunity Sites have been identified to accommodate future housing and mixed-use development; this includes potential redevelopment sites that will help the City meet housing demand. The Housing Element Update proposes to rezone up to 581 acres within City boundaries to accommodate a variety of housing types and densities to accommodate the needs of households of all income levels. An additional 239 acres can accommodate housing with existing zoning.

Table F-1 in Appendix F-1 provides an analysis of the Project's consistency with the 2020–2045 RTP/SCS goals and adopted growth forecasts. As demonstrated in Table F-1, the Project is generally consistent with the 2020–2045 RTP/SCS goals and a less-than-significant impact would occur in this regard. Furthermore, GP 2025 includes several policies intended to assist the City in achieving SCAG's goals. In particular, the GP 2025 Land Use and Urban Design Element incorporates relevant policies to establish the overall policy direction for land use planning decisions in the City. This element works alongside the Housing Element to address housing/jobs balance objectives through the provision of housing for all income levels while providing a diverse collection of housing types, employment-generating land uses, and opportunities for mixed-use development.

Table F-2 in Appendix F provides an analysis of the Project's consistency with goals and policies in GP 2025. As discussed in Table F-2, the Project would be generally consistent with and would

support relevant goals and policies through the development of mixed-use land use categories. The Project would be consistent with the goals and intent of GP 2025 by facilitating and encouraging new housing development, including both single- and multi-family, that results in livable and sustainable neighborhoods. The Project also includes Zoning Code and Specific Plan amendments to include mixed-use development close to infrastructure, housing, and services, reducing automobile trips, vehicle miles traveled, and associated energy consumption. This development would be focused in already urbanized parts of the City, rather than spreading growth to the urban fringes. Furthermore, the Project would be supportive of the GP 2025 policies that encourage the enhancement of the pedestrian environment, as mixed-use development patterns facilitate a pedestrian environment through the provision of commercial uses intermixed with residential uses. The Project would also be substantially consistent with objectives and policies that aim to provide housing of types, sizes, densities, and affordability levels required to satisfy the varying needs and desires of all segments of the community's population.

Table F-1 in Appendix F-1 discusses the Project's consistency with goals and policies in the identified Specific Plans. As discussed above, the Project would be generally consistent with and would support relevant goals and policies through rezoning of land to allow for higher residential density and non-residential intensities, as infill developments.

For these reasons, the Project is generally consistent with the GP 2025 and 2020–2045 RTP/SCS goals and relevant planning documents and a less-than-significant impact would occur.

The Project includes Environmental Justice Policies to facilitate equitable distribution of housing throughout the City and the development of affordable and supportive housing. RTP/SCS goals and relevant planning documents all generally have policies facilitating the development of affordable housing. Therefore, these policies are consistent with the GP 2025 and 2020–2045 RTP/SCS goals and relevant planning documents and a less-than-significant impact would occur.

Public Safety Element Update and Environmental Justice Policies

The Project also includes an update to the Public Safety Element to incorporate information on natural and human-caused hazards, along with new policies related to environmental justice, climate change, and pandemic preparedness and response, among others. The goal of the City's Public Safety Element is to reduce the potential short- and long-term risk of death, injury, property damage, and economic and social disruption resulting from fires, floods, droughts, earthquakes, landslides, climate change, and other hazards. Other locally relevant safety issues—such as emergency response, hazardous materials spills, crime reduction, and response to global pandemics like COVID-19 beginning in 2020—are included. The Project would not result in conflicts with other land use plans, policies, and regulations (e.g., the SCAG RTP/SCS; the Zoning Code, Specific Plans). Impacts would be less than significant.

3.8 Noise

3.8.1 Introduction

This section describes the environmental and regulatory setting for noise for the Project and provides information regarding noise impacts that would result from the Project.

The analysis methods, data sources, significance thresholds, and terminology used are described. The analysis in this section includes impact determinations under CEQA and identifies mitigation measures that would reduce or avoid significant impacts, where feasible, for the elements of the Project including the Housing and Public Safety Element Updates. Details on the location of the Project and a description of Project activities are included in Chapter 2*, Project Description*, of this EIR.

Noise Fundamentals

Noise is commonly defined as unwanted sound. Sound can be described as the mechanical energy of a vibrating object transmitted by pressure waves through a liquid or gaseous medium (e.g., air) to a hearing organ, such as a human ear. Noise is often defined as sound that is objectionable because it is disturbing or annoying.

In the science of acoustics, the fundamental model consists of a sound (or noise) source, a receptor, and the propagation path between the two. The loudness of the noise source and the obstructions or atmospheric factors, which affect the propagation path to the receptor, determine the sound level and the characteristics of the noise perceived by the receptor.

Technical acoustical terms used in this section are defined in Table 3.8-1.

Table 3.8-1. Definitions of Acoustical Terms

Term	Definition
Decibel (dB)	A unit describing the amplitude of sound equal to 20 times the logarithm to base 10 of the ratio of the pressure of the sound measured to the reference pressure. The reference pressure for air is 20 micropascals.
Sound Pressure Level	Sound pressure is the sound force per unit area, usually expressed in micropascals (or micronewtons per square meter), where 1 pascal is the pressure resulting from a force of 1 newton exerted over an area of 1 square meter. The sound pressure level is expressed in decibels as 20 times the logarithm to base 10 of the ratio between the pressures exerted by the sound to a reference sound pressure (e.g., 20 micropascals in air). Sound pressure level is the quantity that is measured directly by a sound level meter.
Frequency (Hertz [Hz])	The number of complete pressure fluctuations per second above and below atmospheric pressure. Normal human hearing is between 20 Hz and 20,000 Hz. Infrasonic sounds are below 20 Hz, and ultrasonic sounds are above 20,000 Hz.

Term	Definition
A-Weighted Sound Level (dBA)	The sound pressure level in decibels as measured on a sound level meter using the A-weighting filter network. The A-weighting filter de-emphasizes the very low- and very high-frequency components of the sound in a manner similar to the frequency response of the human ear and correlates well with subjective reactions to noise.
Equivalent Noise Level (L_{eq})	The average A-weighted noise level during the measurement period. The hourly L_{eq} used for this report is denoted as dBA L_{eq}(h).
Community Noise Equivalent Level (CNEL)	The average A-weighted noise level during a 24-hour day, which is obtained by adding 5 dB to sound levels in the evening from 7 p.m. to 10 p.m. and 10 dB to sound levels between 10 p.m. and 7 a.m.
Day/Night Noise Level (L_{dn})	The average A-weighted noise level during a 24-hour day, which is obtained by adding 10 dB to sound levels measured at night between 10 p.m. and 7 a.m.
L_2, L_8, L_{25}. L_{50}, L_{90}, L_{99}	A-weighted noise levels that are exceeded 2%, 8%, 25%, 50%,90%, and 99% of the time during the measurement period.
Maximum Sound Level (L_{max})	The maximum sound level measured during the measurement period.
Minimum Sound Level (L_{min})	The minimum sound level measured during the measurement period.
Ambient Noise Level	The composite of noise from all sources near and far. The normal or existing level of environmental noise at a given location.

Sound Descriptors

Continuous sound can be described by frequency (pitch) and amplitude (loudness). A low-frequency sound is perceived as low in pitch. Frequency is expressed in terms of cycles per second, or Hertz (Hz) (e.g., a frequency of 250 cycles per second is referred to as 250 Hz). High frequencies are sometimes more conveniently expressed in kilohertz (kHz), or thousands of Hz. The audible frequency range for humans is generally between 20 Hz and 20,000 Hz.

The amplitude of pressure waves generated by a sound source determines the loudness of that source. Sound pressure amplitude is measured in micropascals (µPa). One µPa is approximately one hundred-billionth (0.00000000001) of normal atmospheric pressure. Sound pressure amplitudes for different kinds of noise environments can range from less than 100 to 100,000,000 µPa. Because of this large range of values, sound is rarely expressed in terms of µPa. Instead, a logarithmic scale is used to describe the sound pressure level (also referred to simply as the sound level) in terms of decibels (dB). The threshold of hearing for young people is about 0 dB, which corresponds to 20 µPa.

The dB scale alone does not adequately characterize how humans perceive noise. The dominant frequencies of a sound have a substantial effect on the human response to that sound. Although the intensity (energy per unit area) of the sound is a purely physical quantity, the loudness or human response is determined by characteristics of the human ear.

Human hearing is limited in the range of audible frequencies as well as in the way it perceives the sound pressure level in that range. In general, people are most sensitive to the frequency range of 1,000 to 8,000 Hz and perceive sounds within that range better than sounds of the same amplitude in higher or lower frequencies. To approximate the response of the human ear, sound levels of individual frequency bands are weighted, depending on human sensitivity to those frequencies. The

A-weighted sound level (expressed in units of dBA) can be computed on the basis of this information.

The A-weighting scale approximates the frequency response of the average young ear when listening to most ordinary sounds. When people make judgments regarding the relative loudness or annoyance of a sound, their judgments correlate well with the A-scale sound levels of those sounds. Table 3.8-2 describes typical A-weighted sound levels for various noise sources.

Table 3.8-2. Typical A-Weighted Sound Levels

Common Outdoor Noise Source	Sound Level (dBA)	Common Indoor Noise Source
	— 110 —	Rock band
Jet flying at 1,000 feet		
	— 100 —	
Gas lawn mower at 3 feet		
	— 90 —	
Diesel truck at 50 feet at 50 mph		Food blender at 3 feet
	— 80 —	Garbage disposal at 3 feet
Noisy urban area, daytime		
Gas lawn mower at 100 feet	— 70 —	Vacuum cleaner at 10 feet
Commercial area		Normal speech at 3 feet
Heavy traffic at 300 feet	— 60 —	
		Large business office
Quiet urban daytime	— 50 —	Dishwasher in next room
Quiet urban nighttime	— 40 —	Theater, large conference room (background)
Quiet suburban nighttime		
	— 30 —	Library
Quiet rural nighttime		Bedroom at night
	— 20 —	
		Broadcast/recording studio
	— 10 —	
Lowest threshold of human hearing	— 0 —	Lowest threshold of human hearing

Source: Caltrans 2013.

Decibel Addition

Because decibels are logarithmic units, sound pressure levels cannot be added or subtracted through ordinary arithmetic. On the dB scale, a doubling of sound energy corresponds to a 3-dB increase. In other words, when two identical sources are each producing sound of the same loudness, their combined sound level at a given distance would be 3 dB higher than one source under the same conditions. For example, if one excavator produces a sound pressure level of 80 dBA, two excavators would not produce 160 dBA. Rather, they would combine to produce 83 dBA. The cumulative sound level of any number of sources, such as excavators, can be determined using decibel addition.

Noise Descriptors

Because sound levels can vary markedly over a short period of time, a method for describing either the average character of the sound or the statistical behavior of the variations is utilized. Most commonly, environmental sounds are described in terms of an average level that has the same acoustical energy as the summation of all the time varying events. This energy-equivalent sound/ noise descriptor is called L_{eq}. A common averaging period is hourly, but L_{eq} can describe any series of noise events of arbitrary duration. The scientific instrument used to measure noise is the sound level meter. Sound level meters can accurately measure environmental noise levels to within approximately plus or minus 1 dBA. Two metrics describe the 24-hour average: day/night noise level (L_{dn}) and Community Noise Equivalent Level (CNEL) (defined in Table 3.8-1). Both include penalties for noise during nighttime hours; CNEL also penalizes noise during the evening. CNEL and L_{dn} are normally within 1 dBA of each other and used interchangeably in this section.

Human Response to Noise

Studies have shown that under controlled conditions in an acoustics laboratory, a healthy human ear is able to discern changes in sound levels of 1 dBA. In the normal environment, the healthy human ear can detect changes of about 2 dBA; however, it is widely accepted that changes of 3 dBA in the normal environment are considered just noticeable to most people. A change of 5 dBA is readily perceptible, and a change of 10 dBA is perceived as being twice as loud. Accordingly, a doubling of sound energy (e.g., doubling the noise source) resulting in a 3-dB increase in sound would generally be barely detectable by the human ear.

Sound Propagation

When sound propagates over a distance, it changes in both level and frequency content. The manner in which noise is reduced with distance depends on the following important factors.

Geometric Spreading

Sound from a single source (i.e., a "point" source) radiates uniformly outward as it travels away from the source in a spherical pattern. The sound level attenuates (or drops off) at a rate of 6 dBA for each doubling of distance. Highway noise is not a single stationary point source of sound. The movement of vehicles on a highway makes the source of the sound appear to emanate from a line (i.e., a "line" source) rather than from a point. This results in cylindrical spreading rather than the spherical spreading resulting from a point source. The change in sound level (i.e., attenuation) from a line source is 3 dBA per doubling of distance.

Ground Absorption

Usually the noise path between the source and the observer is very close to the ground. The excess noise attenuation from ground absorption occurs due to acoustic energy losses on sound wave reflection. Traditionally, the excess attenuation has also been expressed in terms of attenuation per doubling of distance. This approximation is done for simplification only; for distances of less than 200 feet, prediction results based on this scheme are sufficiently accurate. For acoustically "hard" sites (i.e., sites with a reflective surface, such as a parking lot or a smooth body of water, between the source and the receptor), no excess ground attenuation is assumed because the sound wave is reflected without energy losses. For acoustically absorptive or "soft" sites (i.e., sites with an

absorptive ground surface, such as soft dirt, grass, or scattered bushes and trees), an excess ground attenuation value of 1.5 dBA per doubling of distance is normally assumed. When added to the geometric spreading, the excess ground attenuation results in an overall drop-off rate of 4.5 dBA per doubling of distance for a line source and 7.5 dBA per doubling of distance for a point source.

Atmospheric Effects

Research by the California Department of Transportation (Caltrans) and others has shown that atmospheric conditions can have a major effect on noise levels. Wind has been shown to be the single most important meteorological factor within approximately 500 feet, whereas vertical air temperature gradients are more important over longer distances. Other factors, such as air temperature, humidity, and turbulence, also have major effects. Receptors downwind from a source can be exposed to increased noise levels relative to calm conditions, whereas locations upwind can have lower noise levels. Increased sound levels can also occur because of temperature inversion conditions (i.e., increasing temperature with elevation, with cooler air near the surface, where the sound source tends to be and the warmer air above which acts as a cap, causing a reflection of ground level–generated sound).

Shielding by Natural or Human-Made Features

A large object or barrier in the path between a noise source and a receptor can substantially attenuate noise levels at the receptor. The amount of attenuation provided by this shielding depends on the size of the object, proximity to the noise source and receptor, surface weight, solidity, and frequency of the noise source. Natural terrain features (such as hills and dense woods) and human-made features (such as buildings and walls) can substantially reduce noise levels. Walls are often constructed between a source and a receptor with the specific purpose of reducing noise. A barrier that breaks the line of sight between a source and a receptor will typically result in at least 5 dB of noise reduction. A higher barrier may provide as much as 20 dB of noise reduction.

Groundborne Vibration Fundamentals

Groundborne vibration is an oscillatory motion of the soil with respect to the equilibrium position and can be quantified in terms of velocity or acceleration. Groundborne vibration can be a serious concern for nearby neighbors of a transit system route or maintenance facility, causing buildings to shake and rumbling sounds to be heard. It is unusual for vibration from sources such as buses and trucks to be perceptible, even in locations close to major roads. Most perceptible indoor vibration is caused by sources within buildings, such as the operation of mechanical equipment, movement of people, or slamming of doors. Typical outdoor sources of perceptible groundborne vibration are heavy construction equipment (such as blasting and pile driving), steel-wheeled trains, and heavy trucks on rough roads. If a roadway is smooth, the groundborne vibration from traffic is rarely perceptible.

Groundborne vibration can be described in terms of peak particle velocity (PPV). PPV is defined as the maximum instantaneous positive or negative peak amplitude of the vibration velocity. The unit of measurement for PPV is inches per second (in/s). For transient vibration sources (single isolated vibration events such as blasting), the human response to vibration varies from barely perceptible at a PPV of 0.04 in/s, to distinctly perceptible at a PPV of 0.25 in/s, and severe at a PPV of 2.0 in/s. For continuous or frequent intermittent vibration sources (such as impact pile driving or vibratory compaction equipment), the human response to vibration varies from barely perceptible at a PPV of 0.01 in/s, to distinctly perceptible at a PPV of 0.04 in/s, and severe at a PPV of 0.4 in/s (Caltrans

2020). If a person is engaged in any type of physical activity, vibration tolerance increases considerably.

3.8.2 Environmental Setting

The City of Riverside (City) is in western Riverside County and is bounded on the north by the Santa Ana River and the cities of Jurupa Valley, Colton, and Rialto (San Bernardino County); on the south by the unincorporated communities of Woodcrest and Mockingbird Canyon; on the north and east by the unincorporated community of Highgrove and the city of Moreno Valley; and on the west by the unincorporated community of Home Gardens and the cities of Norco and Corona. Major noise sources within or surrounding the City include State Route (SR-) 91, SR-60 and Interstate 215. Other transportation-related noise sources throughout the City include local roadways, the Union Pacific Railroad and BNSF Railway, commuter rail lines, and local airports such as Riverside Municipal Airport within the City and March Air Reserve Base and Flabob Airport adjacent to the City. The *Riverside General Plan 2025* (GP 2025) Noise Element identifies the 70, 65, and 60 dBA CNEL contours as they extend out from these transportation facilities into the surrounding land uses.

Other noise sources that may be noticeable within the City include localized noise sources associated with housing, commercial, and industrial development, such as parking lot noise, heating, ventilating, and air conditioning (HVAC) systems operating, and other local noise sources.

In order to quantify the existing ambient noise conditions throughout the City, noise monitoring was conducted at 24 locations within the City and were next to Opportunity Sites throughout the City (identified on Figure 3.8-1). Field measurements were conducted from May 17 through 19, 2021. Long-term (LT) noise monitoring was conducted at four locations, designated LT-1 through LT-4, and short-term (ST) noise monitoring was conducted at 20 locations, designated ST-1 through ST-20. Field measurements were taken at representative land uses throughout the City and in close proximity to the Opportunity Sites and within specific wards. The sound-level meters used for both the LT and ST noise monitoring were field calibrated, using a Larson Davis CAL200 acoustical calibrator, prior to each measurement to ensure accuracy; the calibration was also rechecked at the conclusion of each measurement. Field noise survey sheets and measurement location photos are provided in Appendix NOI-1.

Long-Term Noise Measurements

LT ambient noise measurements were conducted from May 17 through 19, 2021, at four locations throughout the City using Type 2 sound-level meters. LT measurement sites were selected to capture daily noise-level patterns and statistics continuously over 1-hour intervals. Approximately 24-hour days of continuous data were recorded at each location. Table 3.8-3 summarizes the results of the LT noise measurements in terms of the range of hourly measured noise levels and the maximum and minimum measured noise level at each location.

Figure 3.8-1

Short and Long-Term Field Measurements

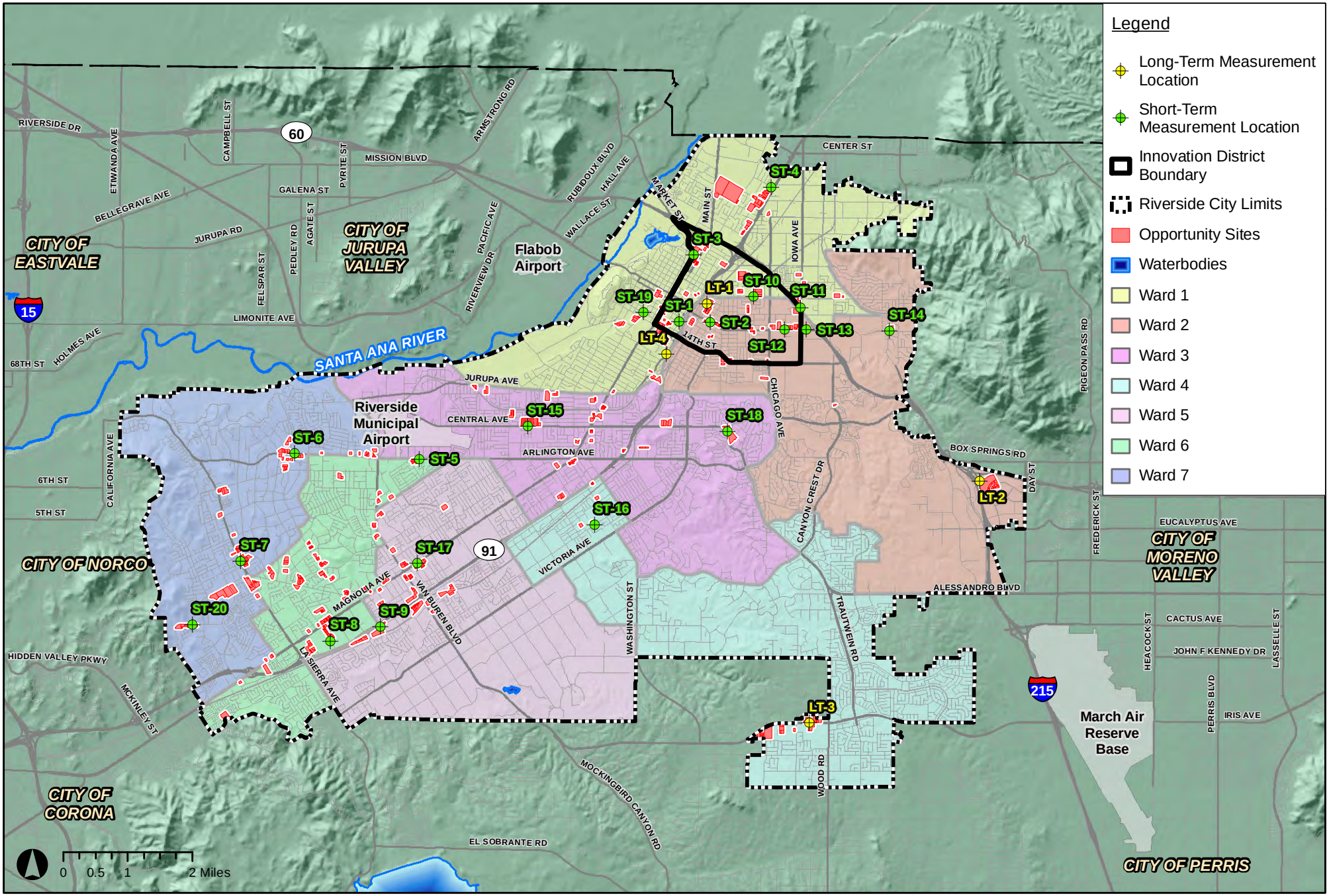


Table 3.8-3. Summary of Noise Measurement Results (Long Term)

Site#	Location/Ward	Start Date	CNEL (dBA)	Range of Hourly L_{eq} Values (average), dBA	Range of L_{max} Values, dBA
LT-1	Near 3450 Commerce St/2	5/17/2021	83.9	60.8–80.1	58.1–106.6
LT-2	Near 2550 Canyon Springs Pkwy/2	5/18/2021	80.4	71.5–75.7	47–98
LT-3	Near 18681 Van Buren Blvd/4	5/18/2021	83.7	71.4–80.1	46.7–104.5
LT-4	Near 4632 Olivewood Ave/1	5/17/2021	80.0	69.7–76.7	68–97.4

Source: ICF field noise measurements (see Appendix NOI-1).
L_{max} = maximum sound level

Short-Term Noise Measurements

ST measurement locations were selected to supplement LT measurements at surrounding land uses. All field measurements were taken with a Larson Davis Model 831 or LxT Type 1 sound-level meter. Each measurement lasted approximately 20 minutes and was conducted with the meter mounted on a tripod at a height of 5 feet above the ground, with a wind screen installed over the measurement microphone to reduce the effects of wind-related interference. Noise metrics—including L_{eq}, minimum sound level (L_{min}), maximum sound level (L_{max}), $L_{1.67}$, $L_{8.33}$, L_{25}, L_{50}, L_{90}, and L_{99} noise descriptors, defined in Table 3.8-1—were recorded subsequent to the conclusion of each measurement. Data from the measurements are shown in Table 3.8-4.

Table 3.8-4. Summary of Noise Measurement Results (Short Term)

Site#	Address/Ward	Date	Time of Day	Hourly L_{eq} Values (average), dBA	L_{max} Values, dBA
ST-1	4080 Lemon St/1	5/17/2021	11:03	67.7	77.1
ST-2	2870 University Ave/2	5/17/2021	11:37	68.6	82.8
ST-3	2727 Main St/1	5/17/2021	09:34	67.3	79.9
ST-4	821 West La Cadena Dr/1	5/17/2021	08:48	69.2	75.9
ST-5	6674 Arlington Ave/6	5/17/2021	12:02	71.3	83.3
ST-6	10249 Arlington Ave/7	5/17/2021	11:20	67.5	84.5
ST-7	5061 La Sierra Ave/7	5/17/2021	09:30	70.6	88.1
ST-8	3625 Polk St/6	5/17/2021	08:05	61.6	74.3
ST-9	10125 Indiana Ave/5	5/17/2021	07:15	72.3	88.3
ST-10	1825 3rd St/1	5/17/2021	12.11	68.5	81.5
ST-11	3375 Iowa Ave/1	5/18/2021	07:56	64.1	80.6
ST-12	1485 University Ave/2	5/18/2021	08:26	59.4	73.5
ST-13	1223 University Ave/2	5/17/2021	13:00	65.8	77.7
ST-14	191 West Big Springs Rd/2	5/17/2021	14:08	58.3	71.9
ST-15	5055 Central Ave/3	5/17/2021	13:05	71.1	94.4
ST-16	7267 Lincoln Ave/4	5/17/2021	13:31	58.6	76.2
ST-17	9328 Magnolia Ave/5	5/17/2021	10:38	62.1	78.0
ST-18	5500 Alessandro Blvd/3	5/17/2021	14:29	71.5	80.3
ST-19	4381 Brookton Ave/1	5/17/2021	10:23	61.3	76.0

Site#	Address/Ward	Date	Time of Day	Hourly L_{eq} Values (average), dBA	L_{max} Values, dBA
ST-20	12010 Raley Dr/7	5/17/2021	08:55	48.8	70.2

Source: ICF field noise measurements (see Appendix NOI-1).

3.8.3 Regulatory Setting

This section identifies laws, regulations, and ordinances that are relevant to the impact analysis of noise in this EIR.

Federal

There are no federal noise standards that specifically apply to the Project.

State

California Department of Health Services Noise Standards

The California Department of Health Services has established guidelines for evaluating the compatibility of various land uses as a function of community noise exposure. These guidelines for land use and noise exposure compatibility are shown in Table 3.8-5. In addition, Section 65302(f) of the California Government Code requires each county and city in the state to prepare and adopt a comprehensive long-range general plan for its physical development, with Section 65302(g) requiring a noise element to be included in the general plan. The noise element must: (1) identify and appraise noise problems in the community, (2) recognize Office of Noise Control guidelines, and (3) analyze and quantify current and projected noise levels.

Table 3.8-5. California Department of Health Services Community Noise Exposure (L_{dn} or CNEL)

Land Use	Normally Acceptable[1]	Conditionally Acceptable[2]	Normally Unacceptable[3]	Clearly Unacceptable[4]
Residential: Low-Density, Single-family, Duplex, Mobile Homes	50–60	55–70	70–75	above 75
Residential: Multi-Family	50–65	60–70	70–75	above 75
Transient Lodging: Motels, Hotels	50–65	60–70	70–80	above 75
Schools, Libraries, Churches, Hospitals, Nursing Homes	50–70	60–70	70–80	above 80
Auditoriums, Concert Halls, Amphitheaters	--	50–70	--	above 70
Sports Arena, Outdoor Spectator Sports	--	50–75	--	above 75
Playgrounds, Neighborhood Parks	50–70	--	67–75	above 75
Golf Courses, Riding Stables, Water Recreation, Cemeteries	50–75	--	70–80	above 80
Office Buildings, Business and Professional Commercial	50–70	67–77	above 75	--
Industrial, Manufacturing, Utilities, Agriculture	50–75	70–80	above 75	---

Source: State of California Governor's Office of Planning and Research 2017.

[1] Normally Acceptable: Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction without any special noise insulation requirements.
[2] Conditionally Acceptable: New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features included in the design. Conventional construction, but with closed windows and fresh air supply systems or air conditioning, will normally suffice.
[3] Normally Unacceptable: New construction or development should generally be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise insulation features included in the design.
[4] Clearly Unacceptable: New construction or development should generally not be undertaken.

California Department of Transportation

The City has not designated a basic criterion for limiting groundborne vibration. Caltrans provides suggested criteria to address potential building damage as well as human annoyance as a result of construction-related groundborne vibration. Therefore, although the Project would not be subject to Caltrans oversight, guidance published by the agency nonetheless provides criteria that could be useful in establishing vibration thresholds for the Project. Guideline criteria from Caltrans' widely referenced *Transportation and Construction Vibration Guidance Manual* (Caltrans 2020) are provided in Table 3.8-12 and Table 3.8-13.

Local

City of Riverside General Plan

GP 2025 was adopted in November 2007 and considers the continued growth of the City to 2025. GP 2025 serves as the major tool for directing growth within the City and presents a comprehensive plan to accommodate the City's growing needs. GP 2025 is intended to implement the community's vision for what Riverside can be in 2025.

Noise Element

In compliance with California Government Code Section 65302(a) requirements, the Noise Element includes objectives, policies, and guidance with respect to noise and development within the City (Table 3.8-6).

Table 3.8-6. Relevant Riverside County General Plan, GP 2025, and Specific Plan Policies

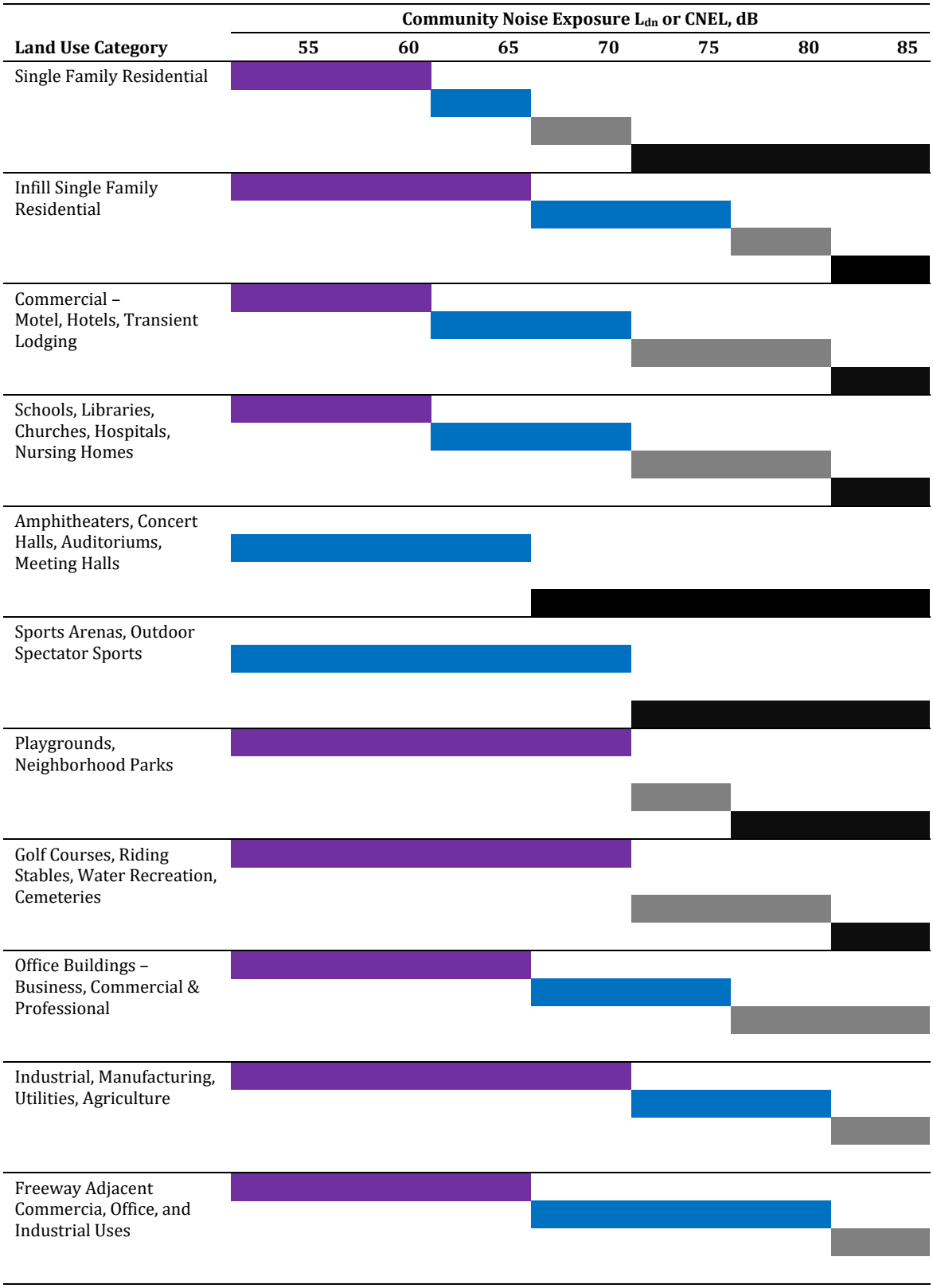
Plan	Policy
Riverside General Plan 2025	
Noise Element Objective N-1: Minimize noise levels from point sources throughout the community and, wherever possible, mitigate the effects of noise to provide a safe and healthful environment.	Policy N–1.1: Continue to enforce noise abatement and control measures particularly within residential neighborhoods. Policy N–1.2: Require the inclusion of noise-reducing design features in development consistent with standards in Figure N–10 (Noise/Land Use Compatibility Criteria), Title 24 California Code of Regulations and Title 7 of the Municipal Code. Policy N–1.3: Enforce the City of Riverside Noise Control Code to ensure that stationary noise and noise emanating from construction activities, private developments/residences and special events are minimized.

Plan	Policy
	Policy N–1.4: Incorporate noise considerations into the site plan review process, particularly with regard to parking and loading areas, ingress/egress points and refuse collection areas. Policy N–1-5: Avoid locating noise-sensitive land uses in existing and anticipated noise-impacted areas.
Objective N–2: Minimize the adverse effects of airport-related noise through proper land use planning.	Policy N–2.1: Ensure that new development can be made compatible with the noise environment by using noise/land use compatibility standards (Figure N–10 – Noise/Land Use Noise Compatibility Criteria) and the airport noise contour maps (found in the Riverside County Airport Land Use Compatibility Plans) as guides to future planning and development decisions. Policy N–2.2: Avoid placing noise-sensitive land uses (e.g., residential uses, hospitals, assisted living facilities, group homes, schools, day care centers, etc.) within the high noise impact areas (over 60 dB CNEL) for Riverside Municipal Airport and Flabob Airport in accordance with the Riverside County Airport Land Use Compatibility Plan.
Specific Plans	
Canyon Springs Business Park Specific Plan	There are no applicable policies relevant to the Project regarding noise.
Downtown Specific Plan	There are no applicable policies relevant to the Project regarding noise.
Hunter Business Park Specific Plan	There are no applicable policies relevant to the Project regarding noise.
La Sierra University Specific Plan	Policy LSU-2.3: As the Specific Plan and its Environmental Impact Report addresses in a comprehensive fashion issues such as land use, traffic, noise, hydrology, earth, air quality, biological resources, public services, cultural resources, aesthetics, infrastructure and grading, a Conditional Use Permit shall not be required for development of uses on the La Sierra University campus which are described in this Specific Plan. Plot plan review by the Planning Commission will be required for significant alteration, expansion and new construction in Subareas 1 and 2.
Magnolia Avenue Specific Plan	There are no applicable policies relevant to the Project regarding noise.
Riverside Marketplace Specific Plan	There are no applicable policies relevant to the Project regarding noise.
University Avenue Specific Plan	There are no applicable policies relevant to the Project regarding noise.

Sources: City of Riverside 1991, 2002, 2005, 2007, 2009, 2017a, 2017b, 2018

Additionally, the Noise Element of GP 2025 City includes a modified version of the California Department of Health Services Community Noise Exposure level table, which is modified for use within the City (Table 3.8-7).

Table 3.8-7. Land Use Compatibility Matrix for Noise Exposure



Land Use Category	Community Noise Exposure L_{dn} or CNEL, dB						
	55	60	65	70	75	80	85
Normally Acceptable	Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction, without any special noise insulation requirements.						
Conditionally Unacceptable	New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features included in the design. Conventional construction, but with closed windows and fresh air supply systems or air conditioning will normally suffice.						
Normally Unacceptable	New construction or development should generally be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise insulation features included in the design.						
Clearly Unacceptable	New construction or development should generally not be undertaken.						

Source: State of California Governor's Office of Planning and Research 2017.

City of Riverside Municipal Code

Section 7.25.010 regulates exterior sound level limits within the City.

A. Unless a variance has been granted as provided in this title, it shall be unlawful for any person to cause or allow the creation of any noise which exceeds the following:

1. The exterior noise standard of the applicable land use category, up to five decibels, for a cumulative period of more than 30 minutes in any hour; or

2. The exterior noise standard of the applicable land use category, plus five decibels, for a cumulative period of more than 15 minutes in any hour; or

3. The exterior noise standard of the applicable land use category, plus ten decibels, for a cumulative period of more than five minutes in any hour; or

4. The exterior noise standard of the applicable land use category, plus 15 decibels, for the cumulative period of more than one minute in any hour; or

5. The exterior noise standard for the applicable land use category, plus 20 decibels or the maximum measured ambient noise level, for any period of time.

B. If the measured ambient noise level exceeds that permissible within any of the first four noise limit categories, the allowable noise exposure standard shall be increased in five decibel increments in each category as appropriate to encompass the ambient noise level. In the event the ambient noise level exceeds the fifth noise limit category, the maximum allowable noise level under said category shall be increased to reflect the maximum ambient noise level.

C. If possible, the ambient noise level shall be measured at the same location along the property line with the alleged offending noise source inoperative. If for any reason the alleged offending noise source cannot be shut down, then the ambient noise must be estimated by performing a measurement in the same general area of the source but at a sufficient distance that the offending noise is inaudible. If the measurement location is on the boundary between two different districts, the noise shall be the arithmetic mean of the two districts.

D. Where the intruding noise source is an air-conditioning unit or refrigeration system which was installed prior to the effective date of this title, the exterior noise level when measured at the property line shall not exceed 60 dBA for units installed before 1-1-80 and 55 dBA for units installed after 1-1-80.

Table 3.8-8. Municipal Code Exterior Noise Standards

Land Use Category	Time Period	Noise Level
Residential	Night (10:00 p.m. to 7:00 a.m.) Day (7:00 a.m. to 10:00 p.m.)	45 dBA 55 dBA
Office/commercial	Any time	65 dBA
Industrial	Any time	70 dBA
Community support	Any time	60 dBA
Public recreation facility	Any time	65 dBA
Nonurban	Any time	70 dBA

Section 7.30.015 regulates interior sound level limits within the City.

A. No person shall operate or cause to be operated, any source of sound indoors which causes the noise level, when measured inside another dwelling unit, school or hospital, to exceed:

1. The interior noise standard for the applicable land category area, up to five decibels, for a cumulative period of more than five minutes in any hour;

2. The interior noise standard for the applicable land use category, plus five decibels, for a cumulative period of more than one minute in any hour;

3. The interior noise standard for the applicable land use category, plus ten decibels or the maximum measured ambient noise level, for any period of time.

B. If the measured interior ambient noise level exceeds that permissible within the first two noise limit categories in this section, the allowable noise exposure standard shall be increased in five decibel increments in each category as appropriate to reflect the interior ambient noise level. In the event the interior ambient noise level exceeds the third noise limit category, the maximum allowable interior noise level under said category shall be increased to reflect the maximum interior ambient noise level.

C. The interior noise standard for various land use districts shall apply, unless otherwise specifically indicated, within structures located in designated zones with windows opened or closed as is typical of the season.

Table 3.8-9. Municipal Code Interior Noise Standards

Land Use Category	Time Period	Noise Level
Residential	Night (10 p.m. to 7 a.m.) Day (7 a.m. to 10 p.m.)	35 dBA 45 dBA
School	7 a.m. to 10 p.m. (while school is in session)	45 dBA
Hospital	Any time	45 dBA

Section 7.35.010 provides general noise regulations within the City.

A. It is unlawful for any person to make, continue, or cause to be made or continued any noise disturbance. The factors which should be considered in determining whether a violation of this section exists, include the following:

1. The sound level of the objectionable noise.

2. The sound level of the ambient noise.

3. The proximity of the noise to dwelling units, hospital, hotels and the like.

4. The zoning of the area.

5. The population density of the area.

6. The time of day or night.

7. The duration of the noise.

8. Whether the noise is recurrent, intermittent, or constant.

9. Whether the noise is produced by a commercial or noncommercial activity.

10. Whether the nature of the noise is usual or unusual.

11. Whether the noise is natural or unnatural.

B. It is unlawful for any person to make, continue, or cause to be made or continued any noise disturbance.

C. Any noise plainly audible through partitions common to two dwelling units within a building shall be prohibited.

Section 7.35.020 provides activities that are exempt within the City.

The following activities shall be exempt from the provisions of this title:

A. *Emergency work*. The provisions of this title shall not apply to the emission of sound for the purpose of alerting persons to the existence of an emergency or in the performance of emergency work.

B. *School events*. Sanctioned school activities conducted on public or private school grounds including but not limited to school athletic and entertainment events are exempted from the provisions of this chapter conducted between the hours of 7:00 a.m. and 11:00 p.m.

C. *Federal or State preempted activities*. The provisions of this Chapter shall not apply to any other activity the noise level of which is regulated by state or federal law.

D. *Minor maintenance to residential property*. The provisions of this title shall not apply to noise sources associated with minor maintenance to property used for residential purposes, provided the activities take place between the hours of 7:00 a.m. and 10:00 p.m.

E. *Right-of-way construction*. The provisions of this title shall not apply to any work performed in the City right-of-ways when, in the opinion of the Public Works Director or his designee, such work will create traffic congestion and/or hazardous or unsafe conditions.

F. *Public health, welfare and safety activities*. The provisions of this title shall not apply to construction maintenance and repair operations conducted by public agencies and/or utility companies or their contractors which are deemed necessary to serve the best interests of the public and to protect the public health, welfare and safety, including but not limited to, trash collection, street sweeping, debris and limb removal, removal of downed wires, restoring electrical service, repairing traffic signals, unplugging sewers, vacuuming catch basins, repairing of damaged poles, removal of abandoned vehicles, repairing of water hydrants and mains, gas lines, oil lines, sewers, storm drains, roads, sidewalks, etc.

G. *Construction.* Noise sources associated with construction, repair, remodeling, or grading of any real property; provided a permit has been obtained from the City as required; and provided said activities do not take place between the hours of 7:00 p.m. and 7:00 a.m. on weekdays, between the hours of 5:00 p.m. and 8:00 a.m. on Saturdays, or at any time on Sunday or a federal holiday.

H. *Warning devices.* Warning devices necessary for the protection of public safety, as for example fire, police, and ambulance sirens, including the testing of such devices, are exempted from the provisions of this title.

I. *Agriculture.* Any agricultural activity, operation, or facility, or appurtenances thereof (e.g., wind machines), conducted or maintained for commercial purposes, and in a manner consistent with

proper and accepted customs and standards as allowed under California Civil Code Section 3482 as amended from time to time.

Policy Consistency

As discussed in Chapter 2, *Project Description*, one of the objectives of the Project is to ensure affordable housing is added across the City and not concentrated in areas with limited access to amenities or near sources of pollution. The Housing Element Update includes a guiding principle that seeks to equitably distribute a mix of housing types, including ownership and rental, that is safe and affordable for people of all income levels, backgrounds, and ages and that meets the needs of current and future Riverside residents.

The Project may result in development that may be inconsistent with City policies relating to noise in the Noise Element (City of Riverside 2018), as described in Table 3.8-6. Implementation of Mitigation Measures **MM-NOI-1** through **MM-NOI-5** would help to address policy inconsistencies. These measures require any future development projects enabled by the Project to evaluate for noise within the City for both construction and operations and provide mitigation to reduce impacts from the Project, where necessary.

3.8.4 Methodology and Thresholds of Significance

This noise impact analysis evaluates the temporary noise and groundborne vibration associated with Project implementation, including potential future construction activities and the changes in noise levels in the City that would occur as a result of the Project. The analysis of these impacts was conducted from a general, programmatic level, as much of the Project consists only of policy and regulatory changes and the development projects that would arise from implementation of the updated Housing and Public Safety Elements would require additional analysis. Mitigation measures to reduce or avoid identified significant impacts accompany each impact discussion (presented below), where necessary.

Construction Noise

Construction-related noise was analyzed using data and modeling methodologies from the Federal Transit Administration's *Transit Noise and Vibration Impact Assessment Manual* (FTA 2018), which provides a list of typical construction equipment and reference emission levels. The reference equipment list is provided in Table 3.8-10. While the use of high-impact, noise-producing equipment such as pile driving is not widely anticipated, refence noise levels have been included.[1]

Table 3.8-10. Typical Construction Equipment

Equipment	Typical Noise Level 50 feet from Source, dBA
Air Compressor	80
Backhoe	80
Ballast Equalizer	82
Ballast Tamper	83

[1] It should be noted that construction equipment provided in the *Transit Noise and Vibration Impact Assessment Manual* was provided for transit projects; however, these references are still applicable for the purposes of the construction noise analysis as part of this Project.

Equipment	Typical Noise Level 50 feet from Source, dBA
Compactor	82
Concrete Mixer	85
Concrete Pump	82
Concrete Vibrator	76
Crane, Derrick	88
Crane, Mobile	83
Dozer	85
Generator	82
Grader	85
Impact Wrench	85
Jack Hammer	88
Loader	80
Paver	85
Pile-driver (Impact)	101
Pile-driver (Sonic)	95
Pneumatic Tool	85
Pump	77
Rail Saw	90
Rock Drill	95
Roller	85
Saw	76
Scarifier	83
Scraper	85
Shovel	82
Spike Driver	77
Tie Cutter	84
Tie Handler	80
Tie Inserter	85
Truck	84

Source: FTA 2018

Vibration

Construction-related vibration was analyzed using data and modeling methodologies provided by Caltrans' *Transportation and Construction Vibration Guidance Manual* (Caltrans 2020) and the Federal Transit Administration's *Transit Noise and Vibration Impact Assessment Manual* (2018). These guidance manuals provide typical vibration source levels for various types of construction equipment, as well as methods for estimating the propagation of groundborne vibration over distance. Potential vibration impacts are assessed based on peak levels, rather than long-term average level. As the timing and location of the specific development projects that may arise as a result of the Housing Element Update are not known at the time of this analysis, the source-to-

receptor distances have been calculated to identify the thresholds for damage and annoyance included in Table 3.8-11 through Table 3.8-13.[2]

Table 3.8-11. Construction Equipment Reference Vibration Levels

Equipment Item	Reference PPV at 25 Feet (in/s)
Vibratory roller	0.210[1]
Large bulldozer[2]	0.0892
Hoe ram	0.0892
Jack hammer	0.0352
Loaded trucks[3]	0.0892
Small bulldozer[3]	0.0032

[1] Caltrans 2020.
[2] Considered representative of other heavy earthmoving equipment such as excavators, graders, backhoes, etc.
[3] FTA 2018.

Table 3.8-12. Guidelines Vibration Damage Potential Threshold Criteria

	Maximum PPV (in/s)	
	Transient Sources	Continuous/Frequent Intermittent Sources
Extremely fragile historic buildings, ruins, ancient monuments	0.12	0.08
Fragile buildings	0.2	0.1
Historic and some old buildings	0.5	0.25
Older residential structures	0.5	0.3
New residential structures	1.0	0.5
Modern industrial/commercial buildings	2.0	0.5

Source: Caltrans 2020

Table 3.8-13. Guidelines Vibration Annoyance Potential Criteria

	Maximum PPV (in/s)	
	Transient Sources	Continuous/Frequent Intermittent Sources
Barely perceptible	0.04	0.01
Distinctly perceptible	0.25	0.04
Strongly perceptible	0.9	0.10
Severe	2.0	0.4

Source: Caltrans 2020.

The following equations from the guidance manuals were used to estimate the change in PPV levels over distance. For pile driving, the equation is:

$$PPV_{rec} = PPV_{ref} \times (25/D)^{n} \times (E_{equip}/E_{ref})^{0.5}$$

[2] The City has not designated thresholds for vibration; therefore, the Caltrans standards are used. The Caltrans standards are well-documented standards for vibration damage potential and annoyance. These standards are generally related to construction source vibration.

where PPV_{rec} is the PPV at a receiver; PPV_{ref} is the reference PPV at 25 feet from the pile driver (0.65 in/s); D is the distance from the pile driver to the receiver, in feet; n is a value related to the vibration attenuation rate through ground (the default recommended value for n is 1.1); E_{equip} is the rated energy of the actual impact pile driver in foot-pounds; and E_{ref} is 36,000 foot-pounds (rated energy of reference pile driver). (For the purposes of the analysis, it is assumed that the pile driver would be very similar to the reference pile driver and there would, therefore, be no adjustment for E_{equip}.)

For other equipment, including heavy earthmoving equipment (such as excavators, graders, and backhoes) and vibratory rollers, the equation is:

$$PPV_{rec} = PPV_{ref} \times (25/D)^n$$

where PPV_{rec} is the PPV at a receptor; PPV_{ref} is the reference PPV at 25 feet from the equipment; D is the distance from the equipment to the receiver, in feet; and n is a value related to the vibration attenuation rate through ground (the default recommended value for n is 1.1).

Operational Noise

Traffic noise was analyzed using a proprietary traffic noise model with calculations based on data from the Federal Highway Administration's Traffic Noise Model Version 2.5 Look-Up Tables (FHWA 2004). The inputs used in the traffic noise modeling included average daily traffic volumes derived from data provided in the traffic impact analysis for the Project (Votsch pers. comm.) in Section 3.12, *Transportation*, traffic speeds based on the posted speed limits, and traffic mix (the percentage of automobiles versus medium trucks and heavy trucks). In this case, the traffic mix was based on a general arterial vehicle mix of 97.4 percent autos, 1.8 percent medium trucks, and 0.8 percent heavy trucks (County of Orange 1984).[3]

Additional noise sources related to the Project were analyzed qualitatively or based on noise measurements of existing or similar facilities, or applicable published noise data.

Thresholds of Significance

In accordance with Appendix G of the State CEQA Guidelines, the Project would be considered to have a significant effect if it would:

- Generate a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in a local general plan or noise ordinance or applicable standards of other agencies
- Generate excessive groundborne vibration or groundborne noise levels
- Be 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 and expose people residing or working in the project area to excessive noise levels

[3] The typical arterial volumes used for the purposes of this analysis represent an appropriate representation of arterial streets within the City and are derived from the best available data incorporated in the Federal Highway Administration's Traffic Noise Model Version 2.5 Look-Up look up tables.

3.8.5 Impacts and Mitigation Measures

The following discussion addresses a range of potential noise and vibration impacts from a variety of sources including construction, traffic, and stationary noise sources. All identified significant environmental effects have proposed mitigation measures that would be used to reduce impacts to the greatest extent practical; however, impacts would remain significant and unavoidable. These mitigation measures will be implemented for subsequent projects that are carried out within the City.

Impact NOI-1: The Project would generate temporary or permanent increases in ambient noise levels in the vicinity of the Project in excess of standards established in a local general plan or noise ordinance or applicable standards for the City. Implementation of Mitigation Measures MM-NOI-1 and MM-NOI-2 would reduce this impact, but not to less-than-significant levels. The impact would be significant and unavoidable.

Housing Element Update, Zoning Code Amendments, and Environmental Justice Policies

As the Housing Element Update would facilitate the development of up to 31,564 residential dwelling units and 3,181,930 square feet of nonresidential development, or up to 31,175 dwelling units and 1,433,460 square feet over existing conditions, the Project could affect nearby noise-sensitive receivers to noise from construction and operations that may exceed the thresholds identified in the City's Noise Element and/or Municipal Code.

The Housing Element Update includes Environmental Justice Policies to facilitate equitable distribution of housing throughout the City. Due to the Environmental Justice Policies being a policy-level planning effort, these policies would not result in temporary or permanent increases in ambient noise levels directly. Additionally, the Project does not include specific development proposals. Future housing development facilitated by the Project would occur as market conditions allow and at the discretion of individual property owners.

Construction

Future developments facilitated by the Project could result in two types of short-term noise impacts during Project construction. First, construction vehicles would incrementally increase noise levels on access roads. This would include construction worker vehicles and haul trucks traveling to and from proposed development sites. Although there would be a relatively high single-event noise level, which could cause an intermittent noise nuisance (e.g., passing trucks at 50 feet would generate up to 77 dBA), the effect on longer-term ambient noise levels would be transitory and minimal.

The second category of construction noise would be noise generated during onsite Project construction. The City's Municipal Code requires construction to be limited to 7 a.m. through 7 p.m. on weekdays and 8 a.m. to 5 p.m. on Saturdays. Construction activities are prohibited on Sundays and federal holidays. Noise levels associated with typical construction equipment that may be used is included in Section 3.8.4 above. The list of construction equipment is broken down by type of equipment and noise levels at a distance of 50 feet.

The loudest piece of construction equipment is predicted to be up to 88 dBA (jackhammer and crane) at a distance of 50 feet.[4] As shown in Table 3.8-4 above, ambient noise levels measured at Opportunity Sites throughout the City ranged from 49 up to 72 dBA. Noise from sources such as construction equipment attenuates at a rate of 6 dB per doubling of distance. Therefore, construction noise levels would attenuate to below ambient noise levels within 400–3,200 feet from the source (dependent on the ambient measured noise levels referenced in Table 3.8-4). Noise levels would typically reduce at a quicker rate due to intervening structures and general ground and atmospheric absorption.

Section 7.35.020 of the City's Municipal Code exempts noise from construction provided, "a permit has been obtained from the City as required; and provided said activities do not take place between the hours of 7:00 p.m. and 7:00 a.m. on weekdays, between the hours of 5:00 p.m. and 8:00 a.m. on Saturdays, or at any time on Sunday or a federal holiday." Although construction noise is exempt per the Municipal Code, best management practices including but not limited to those listed below could be incorporated to reduce noise levels from construction to the greatest extent practical. Impacts would be less than significant.

Construction Best Management Practices

- To the greatest extent practicable, the quietest available type of construction equipment could be used. Newer equipment is generally quieter than older equipment. Electric-powered equipment is typically quieter than diesel- or gasoline-powered equipment, and hydraulically powered equipment is typically quieter than pneumatically powered equipment.
- All construction equipment, stationary and mobile, would be equipped with properly operating and maintained mufflers, air-inlet silencers where appropriate, and any other shrouds, shields, or other noise-reducing features that meet or exceed original factory specifications. Mobile or fixed "package" equipment (e.g., arc welders, air compressors) would be equipped with shrouds and noise-control features that are readily available for that type of equipment.
- All noisy equipment would be operated only when necessary and would be switched off when not in use.
- The use of noise-producing signals, including horns, whistles, alarms, and bells, would be for safety warning purposes only.
- Construction employees would be trained in the proper operation and use of the equipment.
- Storage, staging, parking, and maintenance areas would be away from sensitive receptors. Where this is not possible, the storage of waste materials, earth, and other supplies would be positioned in a manner that will function as a noise barrier to the closest sensitive receivers.
- Stationary noise sources such as generators and compressors would be positioned as far away as possible from noise-sensitive areas.
- Construction equipment would be stored on the individual development site while in use so as to eliminate noise associated with repeated transport of the equipment to and from the site.
- To the extent possible, haul roads would not be designated through noise-sensitive areas.

[4] It should be noted that construction equipment such as rail saws, pile drivers, and rock drills exceed the noise level of 88 dBA referenced. These types of construction equipment are generally not needed for residential construction, but had been included it the table for reference only.

Operations

The Housing Element Update would allow for additional development in the form of up to 31,564 residential units and mixed-use development. The Project also includes general plan amendments, zoning changes, and Specific Plan amendments to facilitate new residential and mixed-use development. As such, the Project could expose nearby noise-sensitive receivers to noise from operations associated with increased traffic and/or stationary operational noise. Operational noise may exceed the thresholds identified in the City's Noise Element and/or Municipal Code.

Operational Traffic

As the Project would facilitate new residential and mixed-use developments within the identified Opportunity Sites, impacts at offsite sensitive receptors due to Project-related traffic is assessed with respect to noise increases (rather than solely based on absolute noise levels). The total number of vehicle trips associated with the build-out of the Project would increase traffic volumes throughout the City along the existing roadway network. Table 3.8-14 identifies the existing, existing plus Project, cumulative (future), and cumulative (future) plus Project traffic noise levels calculated along roadway segments throughout the City.

Table 3.8-14. Estimated Traffic Noise Levels

	Estimated Traffic Noise Levels at 100 feet from Roadway Centerline, dB CNEL					
Roadway/Segment	Existing	Existing Plus Project	Increase Over Existing	Cumulative Base	Cumulative Plus Project	Increase Over Cumulative Base
Alessandro Blvd						
East of Mission Grove Pkwy	68.7	69.6	0.9	70.5	70.5	0
North of Via Vista Dr	69.4	70.4	1.0	70.4	70.4	0
West of Sycamore Canyon Blvd	68.7	69.5	0.8	70.5	70.6	0.1
Arlington Ave						
East of Brockton Ave	62.0	62.4	0.4	64.0	64.1	0.1
California Ave						
East of Adams St	60.3	60.9	0.6	62.4	62.6	0.2
East of Van Buren Blvd	60.2	60.8	0.6	62.3	62.5	0.2
Chicago Ave						
North of Spruce St	60.7	62.0	1.3	62.9	63.1	0.2
Indiana Ave						
East of Harrison St	58.3	58.6	0.3	60.7	60.9	0.2
Jackson St						
North of Indiana Ave	59.1	59.7	0.6	60.7	61.2	0.5
La Sierra Ave						
Magnolia Ave to Collett Ave	63.5	64	0.5	64.9	65.0	0.1
North of Cypress Ave	61.5	61.5	0	63.5	63.6	0.1

Roadway/Segment	Estimated Traffic Noise Levels at 100 feet from Roadway Centerline, dB CNEL					
	Existing	Existing Plus Project	Increase Over Existing	Cumulative Base	Cumulative Plus Project	Increase Over Cumulative Base
North of Pierce St	63.8	64.5	0.7	65.9	66.2	0.3
North of SR-91	65.2	65.7	0.5	66.4	66.6	0.2
Lincoln Ave						
West of Monroe St	58.5	59.2	0.7	59.0	59.3	0.3
Magnolia Avenue						
East of Harrison St	63.0	63.9	0.9	64.2	64.6	0.4
East of Jackson St	61.3	62.1	0.8	63.7	63.9	0.2
South of Jurupa Ave	61.4	61.9	0.5	62	62.3	0.3
SR-91 westbound off-ramp to SR-91 westbound on-ramp	62.3	62.4	0.1	62.8	62.9	0.1
West of Tyler St	62.6	63.2	0.6	63.9	64.2	0.3
Martin Luther King Blvd						
East of Iowa Ave	64.8	65.3	0.5	66.8	66.8	0
East of Kansas Ave	64.9	65.0	0.1	67.1	67.1	0
Pierce St						
West of La Sierra Ave	56.8	57.4	0.6	59.3	59.6	0.3
Riverwalk Pkwy						
Sierra Vista Ave to Raley Dr	62.7	62.9	0.2	62.8	63.0	0.2
Trautwein Rd						
South of Alessandro Blvd	66.1	66.5	0.4	67.6	67.6	0
Tyler St						
North of Magnolia Ave	61.0	61.6	0.6	62.4	62.6	0.2
North of SR-91	62.7	63.0	0.3	63.5	63.7	0.2
Van Buren Blvd						
North of SR-91	64.1	64.7	0.6	66.0	66.2	0.2
South of Cleveland Ave	64.2	64.3	0.1	65.6	65.7	0.1
West of Washington St	63.5	63.6	0.1	64.3	64.4	0.1
West of Wood Rd	64.4	64.8	0.4	64.8	64.9	0.1
North of Arlington Ave	65.3	65.5	0.2	66.4	66.4	0
North of Colorado Ave	63.9	64.2	0.3	65.5	65.6	0.1
North of Jurupa Ave	66.4	66.6	0.2	67.5	67.5	0
Victoria Ave						
West of Van Buren Blvd	56.9	57.2	0.3	59.7	59.9	0.2

Source: Votsch pers. comm.

As shown, the changes in traffic noise under existing conditions plus the Project would range from 0 dB (no increase over the existing conditions) to 1.3 dB (increase over the existing conditions). The

cumulative plus Project conditions show a similar change, ranging from a 0-dB increase up to 0.5 dB over the cumulative base condition. Noise levels calculated in Table 3.8-14 are considered conservative, as they do not account for any shielding from intervening structures or walls, which would further reduce traffic noise levels. As shown, many of the roadway segments analyzed currently exceed the 60 dBA and 65 dBA CNEL thresholds for the single-family residential and infill single-family residential referenced in the City's Land Use Compatibility Matrix for Noise Exposure. The largest increase would be on the order of 1.3 dB over existing and 0.5 dB over the cumulative base. While noise levels of this magnitude would not likely be discernable, many of the Opportunity Sites within the City currently exceed the relevant thresholds outlined by GP 2025. As a result, mitigation (in the form of Mitigation Measure **MM-NOI-1**) would be necessary in order to reduce the impacts to the greatest extent practical. However, even with the inclusion of Mitigation Measure **MM-NOI-1**, impacts would remain significant and unavoidable.

Operational Stationary Noise

As discussed above, the Project would facilitate the addition of new residential units and mixed-use development throughout the City. The City has identified Opportunity Sites (Figure 3-8.1) throughout the City that could be redeveloped as part of future developments to increase housing stock to meet the City's Regional Housing Needs Assessment obligation.

New residential and mixed-use development would likely result in the installation of HVAC systems. As the Project does not include specific development proposals, locations of HVAC systems are not known; however, noise from HVAC systems could be as loud as 77 dBA at a distance of 1 foot. At a distance of 50 feet (assuming a 6-dB reduction for doubling of distance), HVAC system noise would reduce to 44 dBA. As the location of HVAC systems is not known, it is possible that HVAC systems may exceed both the daytime and/or nighttime sound level limits included in the City's Municipal Code. Therefore, impacts associated with stationary noise sources could be significant and would require mitigation. Mitigation (in the form of Mitigation Measure **MM-NOI-2**) would be required to reduce impacts to the greatest extent practical. However, even with the inclusion of Mitigation Measure **MM-NOI-2**, impacts would remain significant and unavoidable.

New residential and mixed-use development facilitated by the Project would result in other stationary noise sources such as landscaping activities and anti-theft car alarms, among others. These noise sources would be temporary and periodic and would generally not increase noise levels at existing nearby noise-sensitive receptors.

Many of the Opportunity Sites are throughout the City in areas where noise levels exceed compatibility thresholds outlined in GP 2025. The exceedance of the noise compatibility thresholds would be dependent on the location of the Opportunity Site and the surrounding noise source, such as large transportation facilities, the existing rail line(s) that traverse the City, and/or large arterial roadway networks. These Opportunity Sites could expose future developments to noise levels in excess of the standards laid out in the City's Land Use Compatibility Matrix for Noise Exposure. As noise levels could exceed thresholds, adherence to the City's Land Use Compatibility Matrix for Noise Exposure thresholds would be required.

As discussed above, the adoption of the proposed Housing Element and associated policies could potentially result in impacts from traffic noise and stationary noise sources associated with new housing within the City.

The proposed Environmental Justice Policy N-EJ-1.0 provides a directive to "focus on environmental justice communities, reduce noise pollution by enforcing noise reduction and control measures within and adjacent to residential neighborhoods." Inclusion of Mitigation Measures **MM-NOI-1** and **MM-NOI-2** would help to reduce noise pollution.

In summary, with the inclusion of mitigation measures listed below, impacts from construction would be less than significant; however, impacts from operations would be significant and unavoidable even with mitigation incorporated.

Public Safety Element Update and Environmental Justice Policies

While the Public Safety Element Update would not result in specific development, certain implementation actions could facilitate new construction and operation activities that may expose noise-sensitive receivers to noise from construction and operations that may exceed the thresholds identified in the City's Noise Element and/or Municipal Code, such as fire control measures like brush-clearance activities to reduce the risk of wildland fires within the Fire Hazard Area.

Construction

Future development facilitated as part of the Public Safety Element Update could have the same types of short-term noise impacts as discussed above during Project construction. These would include construction worker vehicles and haul trucks traveling to and from individual development sites and noise generated during onsite construction. As discussed above, the City's Municipal Code requires construction to adhere to specified periods permitted by the City's Municipal Code. Noise levels associated with typical construction equipment that may be used is included in Section 3.8.4 above, and construction noise levels would be similar to those estimated in Table 3.8-10. Best management practices as discussed above could be included to reduce construction noise to the greatest extent practical. As such, impacts would be less than significant.

Operations

As the Public Safety Element Update would allow for additional development through actions, the Project could affect nearby noise-sensitive receivers through operational noise associated with new emergency vehicle traffic and/or stationary operational noise. Operational noise may exceed the thresholds identified in the City's Noise Element and/or Municipal Code.

Operational Stationary Noise

As discussed above, the actions to implement Public Safety Element policies could occur throughout the City. The City has identified the development of police headquarters in the Downtown area. Development of this type of land use would likely result in the installation of HVAC systems. As the Project does not specifically propose new development, locations of HVAC systems are not known; however, as discussed above, noise from HVAC systems could be as loud as 77 dBA at a distance of 1 foot. At a distance of 50 feet (assuming a 6-dB reduction for doubling of distance), HVAC system noise would reduce to 44 dBA. As the location of HVAC systems is not known, it is possible that HVAC systems may exceed the daytime and/or nighttime sound level limits included in the City's Municipal Code. As the development of any additional facilities associated with the Public Safety Element (police headquarters) would be subject to project-specific CEQA analysis, impacts would be less than significant.

While the Public Safety Element Update would not directly develop new public safety services, such as police stations, Action PS-4.1-5 would direct the location of new facilities such as a new police headquarters. The development of a new police headquarters could expose nearby noise-sensitive receptors to increased noise levels associated with sirens. The City's Municipal Code Section 7.35.020 (H) exempts noise from warning devices necessary for public safety, including fire and police sirens. As such, noise from new sources such as sirens would be exempt. Impacts would be less than significant.

Mitigation Measures

The potential impacts of the Project described in this section would be reduced with implementation of the following mitigation measures.

MM-NOI-1: Prepare a focused noise study and implement findings to reduce traffic noise.

For Opportunity Site projects that would exceed the 60 or 65 dBA CNEL threshold (based on the noise contour maps included in GP 2025), the applicant shall prepare a detailed analysis and implement mitigation to comply with the applicable City standards outlined in GP 2025. This could include but would not be limited to actions such as:

- Installation of soundwalls to break the line of sight from noise sources such as traffic noise
- Installation of noise-reducing insulation
- Installation of windows with sound transmission class (STC) ratings appropriate to reduce exterior-to-interior noise transmission
- Installation of HVAC systems

MM-NOI-2: For any development where stationary noise sources may exceed interior or exterior noise standards, prepare a focused noise study and implement findings to reduce HVAC noise.

The applicant shall design HVAC systems for Opportunity Sites to comply with the applicable City Municipal Code standards. This could include but would not be limited to actions such as:

- Preparation of a focused noise study to analyze HVAC noise, which shall identify a location for HVAC systems at appropriate distances so as to not exceed a noise level of 55 dBA L_{eq} (exterior) and 45 dBA L_{eq} (interior) between the hours of 7:00 a.m. and 10:00 p.m. and 45 dBA L_{eq} (exterior) and 35 dBA L_{eq} (interior) between the hours of 10:00 p.m. and 7:00 a.m. at the closest noise-sensitive land use. Design features that could be used to comply with the relevant threshold could include but are not limited to:
    - Locating HVAC systems far enough from residences so as to allow noise to attenuate to below the relevant standards
    - Installing housings or structural parapets around HVAC systems
    - Installing noise-reducing insulation
    - Installing windows with STC ratings appropriate to reduce exterior-to-interior noise transmission

Impact NOI-2: The Project could generate excessive groundborne vibration or groundborne noise levels. Implementation of Mitigation Measure MM-NOI-3 would reduce this impact, but not to less-than-significant levels. The impact would be significant and unavoidable.

Housing Element Update, Zoning Code Amendments, and Environmental Justice Policies

Construction

Heavy construction equipment has the potential to produce groundborne vibration levels that are perceptible to people in the surrounding area.

Referring to the equipment provided above in Table 3.8-10, various pieces of heavy equipment such as graders, bulldozers, and excavators would be used at individual development sites. Based on data published by Caltrans (Caltrans 2020), this type of equipment typically produces PPV vibration levels of 0.089 in/s at a distance of 25 feet.

Using the equation (see *Vibration* in Section 3.8.4) to calculate vibration transmission loss, it was determined that heavy construction equipment (e.g., graders, excavators) would generate groundborne vibration levels that would attenuate to levels referenced in Table 3.8-15.

Table 3.8-15. Attenuated Vibration Levels at Distance

Equipment Item	Reference PPV at 25 Feet (in/s)	PPV at 50 Feet (in/s)	PPV at 100 Feet (in/s)	PPV at 200 Feet (in/s)
Large bulldozer	0.0891	0.042	0.019	0.009

As outlined in Table 3.8-12, the threshold for extremely fragile historic buildings is 0.12 PPV for transient vibration sources and 0.08 PPV for frequent intermittent sources for damage. The thresholds for annoyance criteria (Table 3.8-13) show that vibration would be barely perceptible at levels of 0.01 PPV for frequent intermittent sources and 0.04 PPV for transient vibration sources. Vibration levels could potentially exceed the damage threshold of 0.08 PPV if construction occurred within 25 feet of extremely fragile buildings and would be barely perceptible within a distance of approximately 200 feet. It should be noted that the use of high-impact construction equipment such as during pile driving would increase the distance to the reference damage levels; however, as pile driving is generally not used for residential development, it is assumed that this type of high-impact vibration equipment would not be used. As the location of construction is not known at this time, construction vibration levels cannot be calculated at specific vibration-sensitive land uses. Therefore, impacts from vibration could be significant. As such, mitigation (in the form of Mitigation Measure **MM-NOI-3**) would be necessary. Even with the inclusion of Mitigation Measure **MM-NOI-3**, impacts would remain significant and unavoidable.

Operations

The Housing Element Update would potentially add vehicles such as automobiles and could result in a small increase in trucks accessing the local roadway network. Based on the FTA and Caltrans guidance, loaded trucks would produce a PPV of no more than 0.089 PPV at a distance of 25 feet. As the threshold for damage for transient sources (Table 3.8-12) is 0.12 PPV for extremely fragile

Figure 3.8-2

Riverside Municipal and Flabob Airport Noise Contours

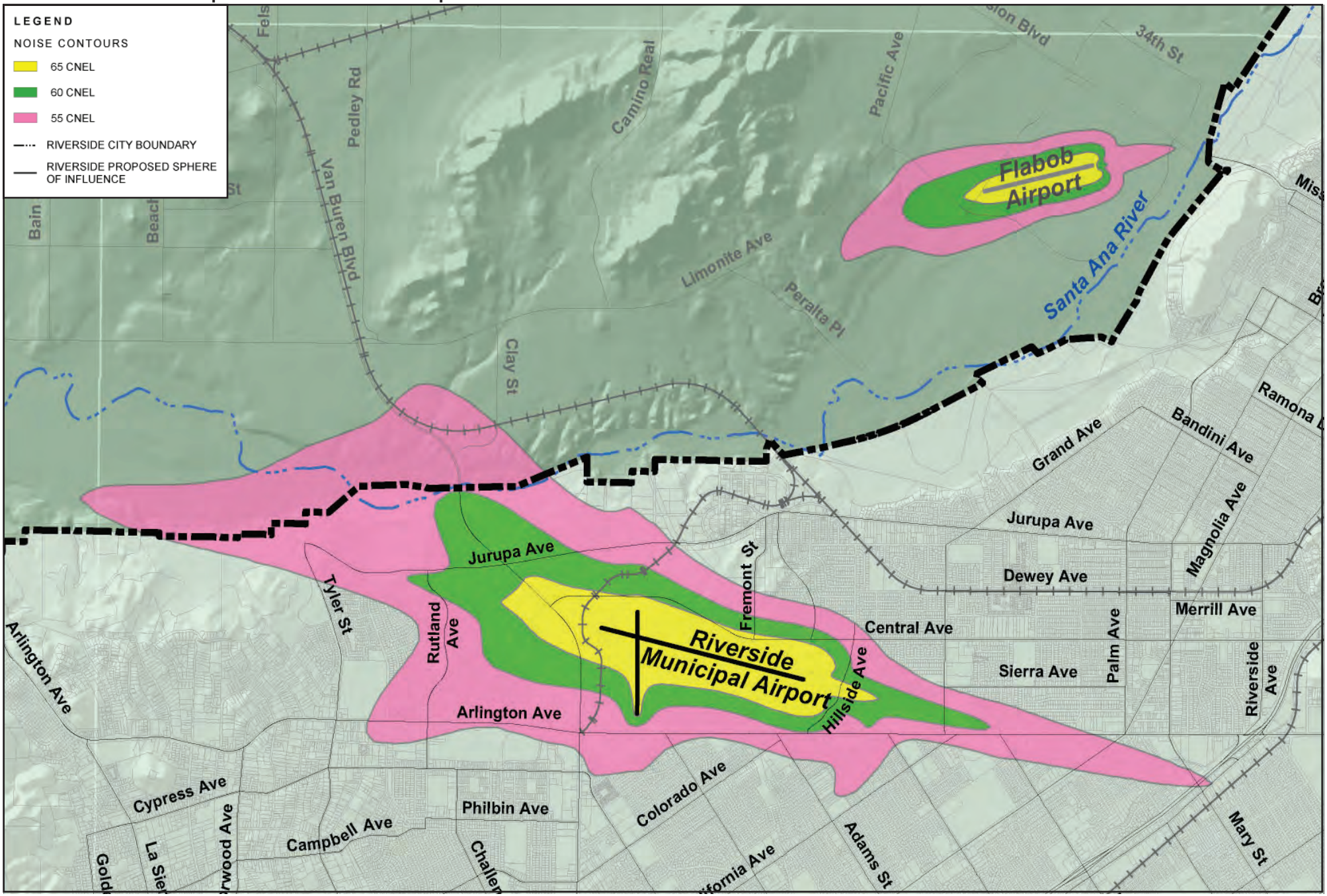
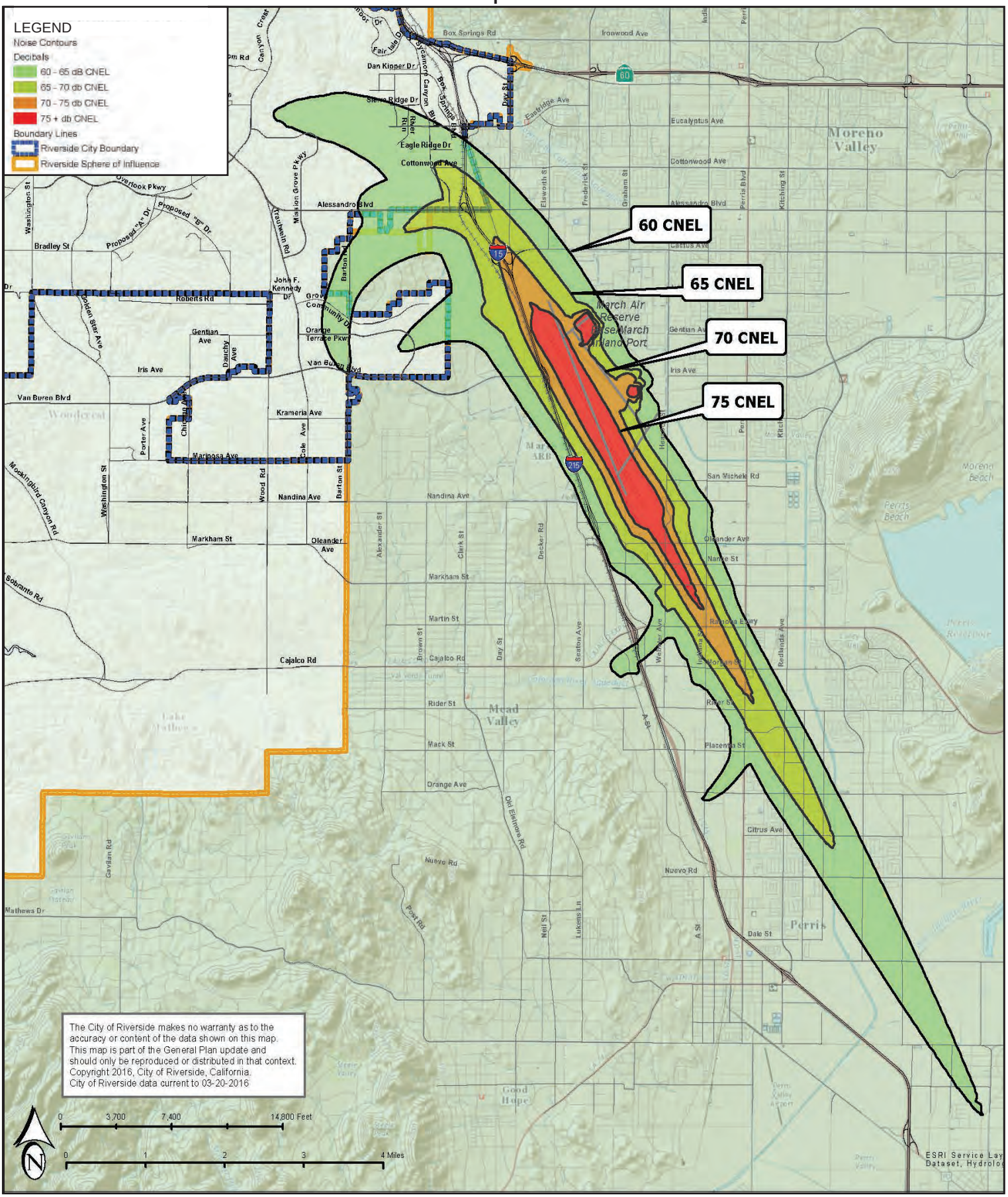


Figure 3.8-3

March Air Reserve Base/Inland Port Airport Noise Contours



buildings, damage associated with a truck pass-by would not result in potential damage to nearby structures. Additionally, a vibration level of 0.04 PPV is considered a barely perceptible threshold of perception (Table 3.8-13). Vibration would not be noticeable outside of 50 feet from the roadway. Therefore, as there is no operational component related to the Housing Element Update that would result in significant sources of vibration, impacts would be less than significant.

Public Safety Element Update and Environmental Justice Policies

While the Public Safety Element Update would not result in specific development, certain implementing actions could facilitate new construction and operations that may expose sensitive receivers to vibration from construction and operations that may exceed the thresholds identified in the City's Noise Element and/or Municipal Code.

Construction

Future developments facilitated as part of the Public Safety Element Update could have the same types of vibration impacts as discussed above during Project construction. Vibration levels associated with typical construction equipment that may be used are included in Table 3.8-10 above. As such, inclusion of Mitigation Measure **MM-NOI-3** would reduce noise impacts to less-than-significant levels.

Operations

The Public Safety Update would potentially add vehicles such as automobiles and some trucks to the local roadway network. These types of vehicles do not produce noticeable levels of vibration. Therefore, as there is no operational component related to the Public Safety Element Update that would result in significant sources of vibration, impacts would be less than significant.

Mitigation Measures

The potential impacts of the Project described in this section would be reduced with implementation of the following mitigation measure.

MM-NOI-3: Reduce construction-generated groundborne vibration to the extent possible.

The City of Riverside Community & Economic Development Department, Planning Division shall, to the extent possible, require that heavy construction equipment (representative equipment such as large bulldozers) is not operated within 25 feet of onsite or offsite sensitive receptors (including, but not limited to, single- and multi-family residences, institutional or care facilities, etc.). If construction is anticipated within 25 feet of onsite or offsite sensitive receptors, the City shall require pre- and post-construction surveys to confirm that vibration did not result in damage to surrounding structures. Additionally, the City shall require vibration monitoring at the structure to determine if vibration levels exceed the 0.08 PPV threshold at the structure. Should an exceedance be identified, construction would be halted and additional measures would be implemented in order to reduce vibration levels. These additional measures could include, but are not limited to:

- Using smaller or less vibration-intensive equipment
- Maximizing the distance from the vibration source

Impact NOI-3: The Project would be in the vicinity of a private airstrip and an airport land use plan, and within 2 miles of a public airport or public use airport but would not expose people residing or working in the City to excessive noise levels. Impacts would be less than significant.

Housing Element Update, Zoning Code Amendments, and Environmental Justice Policies

Airports within the City include Riverside Municipal Airport. Additionally, Flabob Airport and March Reserve Airforce Base are approximately 0.75 mile north/northwest and 1.4 miles southeast, respectively. Flight paths associated with the noise contours are included on Figures 3.8-2 and 3.8-3. Noise from aircraft on departure or approach to any of these airports would be audible at many of the Opportunity Sites identified throughout the City. None of the Opportunity Sites identified would be within the 60 or 65 dBA CNEL contour for any of the surrounding airports. A few of the Opportunity Sites would be within the 55 dBA CNEL contour. Policy N-2.2 and Policy N-3.1 of the City's current Noise Element direct that development of noise-sensitive land uses (including residences) should not occur within the 65 dBA CNEL contour of the surrounding airports, including the three mentioned above. As no Opportunity Sites are planned within the 60 or 65 dBA CNEL contours, impacts on the proposed land uses as facilitated by the Project would be less than significant.

Public Safety Element Update and Environmental Justice Policies

As discussed above, the airports surrounding and within the City are March Reserve Airforce Base, Flabob Airport, and Riverside Municipal Airport. As the Public Safety Element Update would not result in the development of noise-sensitive land uses, no impacts would occur.

3.9 Population and Housing

3.9.1 Introduction

This section describes the environmental and regulatory setting for population and housing for the Project and provides information regarding general neighborhood population and housing characteristics and projected population growth for the City of Riverside (City). An analysis of potential population, housing, and employment impacts that could occur with implementation of the Project is presented. Data presented were obtained from the U.S. Census Bureau, California Department of Finance (DOF), and Southern California Association of Governments (SCAG). The analysis methods, data sources, significance thresholds, and terminology used are described. Details on the location of the Project and a description of Project activities are included in Chapter 2*, Project Description*, of this EIR.

On March 4, 2020, California Governor Gavin Newsom declared a state of emergency in California due to the Coronavirus' (COVID-19's) public health threat. On March 8, 2020, the County of Riverside Public Health Officer declared a local health emergency in Riverside County due to the public health threat of COVID-19. On March 13, 2020, the Riverside City Council proclaimed a Local Emergency, as defined by Government Code §8558(c), in the City due to the COVID-19 pandemic. Given these recent COVID-19-related events, which could potentially result in a significant and sustained recession, it is likely that the growth forecasts presented in this analysis are overstated.

3.9.2 Environmental Setting

The City's demographics are examined in the context of existing and projected population for the Riverside County region and the City. The City is a major economic hub in Southern California. The City is currently ranked as the twelfth largest city in California and the seventh largest city in Southern California.

Riverside is the center of and largest city in the region known as the Inland Empire. SCAG's 2020–2045 Regional Transportation Plan (RTP)/Sustainable Communities Strategy (SCS), referred to as *Connect SoCal* (adopted May 7, 2020), population, housing, and employment growth forecast for 2045 is shown in Table 3.9-1. The projections estimate that Riverside will continue to steadily grow.

Table 3.9-1. Population, Housing, and Employment Projections for Riverside

	City of Riverside	
Type	2018	2045
Population	325,860	395,800
Housing Units	100,515	115,100
Employment	148,353	188,700

Source: SCAG 2020a.

Population

Population in Riverside has steadily grown with approximately 40,000 new residents added each decade since the 1960s. The City is anticipated to continue increasing in population. According to

the *Riverside General Plan 2025* (GP 2025) EIR, the City projected a population of 383,077 by 2025. Of that total, GP 2025 projects a population of 346,867 within current incorporated boundaries of Riverside and 36,209 residents within the City's Sphere of Influence. In past decades, migration patterns—in part due to the relative affordability of housing compared to coastal population centers—fueled population growth in Riverside.

Table 3.9-2 shows population growth trends in the City and Riverside County as reported by DOF. Population has consistently increased in the City and Riverside County. The City's population increased from 303,871 persons in 2010 to 328,155 persons in 2020, which is an approximate 8-percent increase. Riverside County population increased by approximately 11.5 percent from 2010 to 2020.

Table 3.9-2. Population Growth Trends in the City and Riverside County

	City of Riverside		Riverside County	
Year	Population	Percent Change	Population	Percent Change
2010	303,871	N/A	2,189,641	N/A
2011	307,661	1.2%	2,216,250	1.2%
2012	311,038	1.1%	2,244,472	1.3%
2013	314,191	1.0%	2,268,660	1.1%
2014	315,923	0.6%	2,290,907	1.0%
2015	318,387	0.8%	2,315,706	1.1%
2016	320,962	0.8%	2,343,785	1.2%
2017	323,583	0.8%	2,376,580	1.4%
2018	325,417	0.6%	2,400,762	1.0%
2019	326,427	0.3%	2,422,146	0.9%
2020	328,155	0.5%	2,442,304	0.8%
Total Change (2010 to 2020)		7.9%		11.5%

Source: DOF 2020.

Age

Resident age characteristics in Riverside affect housing needs. Riverside's central location and the presence of four major colleges and universities result in young adults making up a significant percentage of the population. As seen in Table 3.9-3, the median age in the City in 2019 was 31.6. Riverside's largest groups of age demographics are 45–64 and under 14, with young adults aged 15–24 making up the third largest age group. From 2010 to 2019, young adults aged 15–24 increased by 8.6 percent and young adults aged 25–34 increased by 24.7 percent in the City. Much like the broader region, the percentage of middle-aged adults aged 45 to 64 and older adults (65+) substantially increased. The only two age groups that showed decreases in population between 2010 and 2019 were adolescents under 14 and adults aged 35 to 44. These changes in age structure represent a substantial change in the age composition of Riverside toward an aging population.

Table 3.9-3. Population for the City and Riverside County

	City of Riverside			Riverside County		
Characteristic	Population 2010	Population 2019	Percent Change	Population 2010	Population 2019	Percent Change
Male	149,800	162,664	8.6%	1,050,949	1,200,960	14.3%
Female	150,753	163,750	8.6%	1,058,515	1,210,479	14.4%
Under 14	68,502	64,057	-6.5%	500,607	505,816	1.0%
15–24	58,332	60,099	3.0%	324,443	345,754	6.6%
25–34	44,476	55,445	24.7%	273,040	334,925	22.7%
35–44	41,366	40,432	-2.3%	294,449	308,273	4.7%
45–64	62,871	71,566	13.8%	472,002	576,096	22.1%
65+	25,006	34,815	39.2%	244,923	340,575	39.1%
Median age (years)	29.8	31.6	6.0%	33.4	35.6	6.6%

Source: U.S. Census Bureau 2010, 2019.

Regional and Local Race/Ethnicity Distribution

Like much of Southern California, Riverside's population is becoming more diverse in race and ethnicity. In 2001, the City adopted the "Building a More Inclusive Riverside Community" statement. This statement affirms the opportunities and challenges of building an inclusive community and the responsibilities of residents, businesses, institutions, and policymakers in Riverside's future.

According to the U.S. Census Bureau's 2019 American Community Survey (ACS), 53.7 percent of the population of the City is Hispanic, 29.8 percent is White, 7.4 percent is Asian, and 5.8 percent is African American. These patterns reflect the characteristics in Riverside County and those of central cities in the region.

Table 3.9-4. Race/Ethnicity Distribution for the City and Riverside County

	City of Riverside		Riverside County	
Ethnicity/Race	Population	Percent	Population	Percent
Hispanic/Latino	175,311	53.7%	1,179,478	48.9%
White	97,325	29.8%	851,702	35.3%
Black or African American	18,825	5.8%	147,160	6.1%
American Indian/Alaska Native	10,89	0.3%	10,362	0.4%
Asian	24,090	7.4%	152,347	6.3%
Native Hawaiian/Other Pacific	734	0.2%	6,471	0.3%
Some other race	990	0.3%	5,936	0.2%
Two or more races	8,050	2.5%	57,983	2.4%

Source: U.S. Census Bureau 2019.

Environmental Justice Communities

In 2012, the State Legislature passed, and Governor Brown signed into law, Senate Bill (SB) 535, which provides the framework for how the Cap-and-Trade program's auction proceeds are appropriated and expended. SB 535 directed the California Environmental Protection Agency to identify environmental justice communities for purposes of the Greenhouse Gas Reduction Fund

programs based on geographic, socioeconomic, public health, and environmental hazard criteria. These communities may include, but are not limited to:

- Areas disproportionately affected by environmental pollution and other hazards that can lead to negative public health effects, exposure, or environmental degradation
- Areas with concentrations of people that are of low-income, high unemployment, low levels of home ownership, high rent burden, sensitive populations, or low levels of educational attainment

The California Environmental Protection Agency uses the CalEnviroScreen methodology to identify SB 535 environmental justice communities. As seen on Figure 3.9-1, there are environmental justice communities within the City and its Sphere of Influence. Environmental justice communities are generally located in the northern and central portions of the City.

Housing

The City offers an attractive housing market primarily for its relative affordability, central location, job opportunities, and the presence of four major colleges. According to Table 3.9-5, the rate of housing production in the City increased consistently from 2010 to 2020. Many homeowners and renters are leaving coastal cities to relocate in San Bernardino and Riverside Counties in search of more affordable housing. Comparing Table 3.9-2 and Table 3.9-5, population and housing growth trends have both steadily increased.

Table 3.9-5. Housing Growth Trends in the City and Riverside County

	City of Riverside		Riverside County	
Year	Housing Units	Percent Change	Housing Units	Percent Change
2010	98,444	N/A	800,707	N/A
2011	98,620	0.2%	804,913	0.5%
2012	98,761	0.1%	807,970	0.4%
2013	99,152	0.4%	812,234	0.5%
2014	99,254	0.1%	817,008	0.6%
2015	99,501	0.2%	822,911	0.7%
2016	99,859	0.4%	828,383	0.7%
2017	100,113	0.3%	834,652	0.8%
2018	100,515	0.4%	840,904	0.7%
2019	100,760	0.2%	847,851	0.8%
2020	101,414	0.6%	856,124	1.0%
Total Change (2010 to 2020)	2,970	3.01%	55,417	6.9%

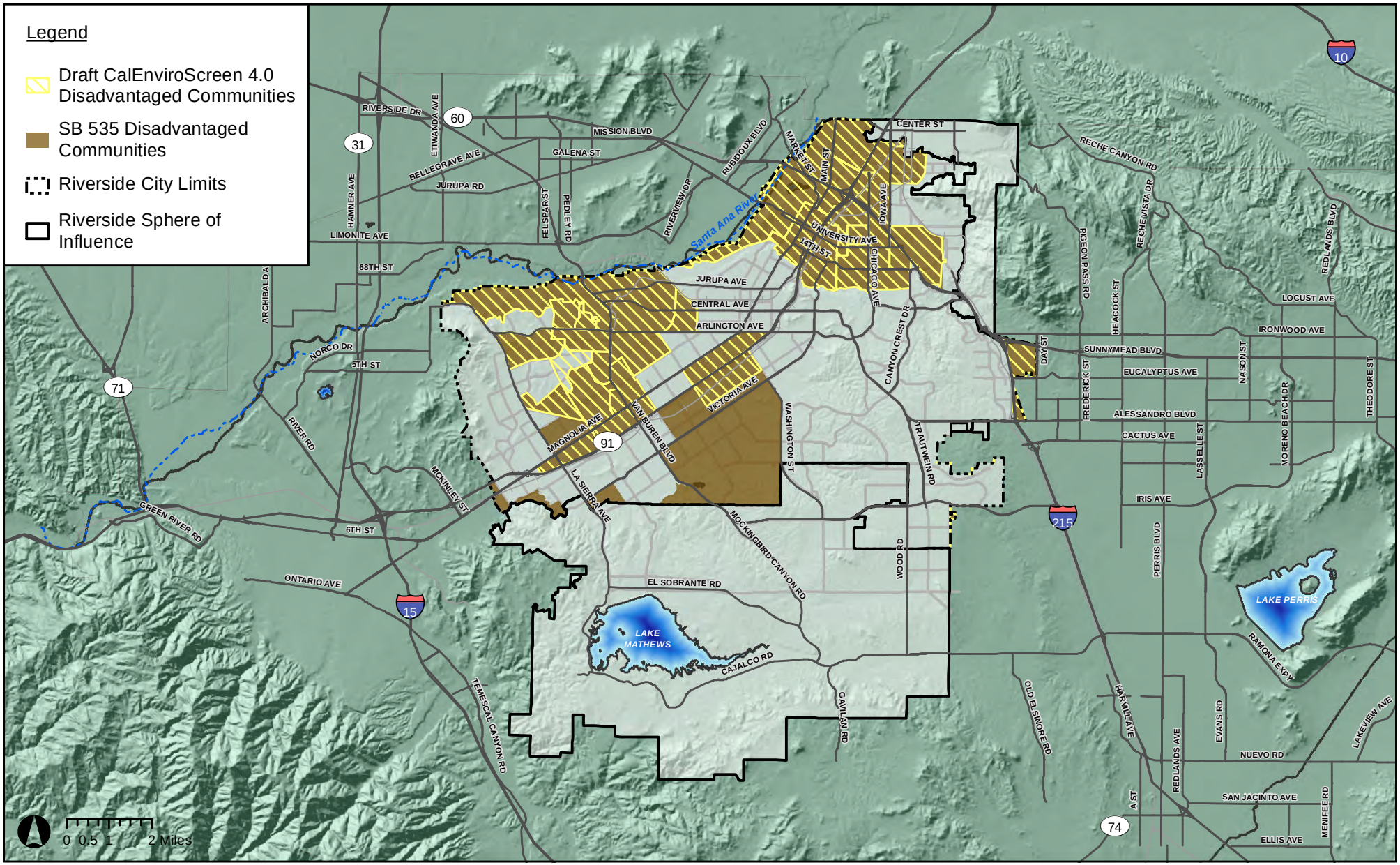
Source: DOF 2020.

Existing Housing Units

Table 3.9-6 shows the housing unit types in the City and Riverside County. As is the case with most inland communities, single-family homes compose the majority (68 percent) of Riverside's housing stock. Within this general category, single-family homes can range from smaller detached homes or attached products with two to four units to larger estate homes. According to 2020 data, most

Figure 3.9-1

Environmental Justice Communities



housing units in the City (64 percent) and Riverside County (68 percent) are single-family detached units.

Table 3.9-6. Housing Units in the City and Riverside County by Type (2020)

	City of Riverside		Riverside County	
Type	Number of Units	Percent	Number of Units	Percent
Single-family detached	64,645	64%	585,544	68%
Single-family attached	3,915	4%	52,844	6%
Multi-family (2–4 units)	6,406	6%	39,044	5%
Multi-family (5 units or more)	24,221	24%	98,023	11%
Mobile homes	2,227	2%	80,669	9%
Total	101,414	100%	856,124	100%
	Household Size= 3.28		Household Size= 3.23	

Source: DOF 2020.

Housing Profile

According to DOF, in 2020 the City has more units occupied compared to Riverside County, as shown in Table 3.9-7. As rent has increased in Riverside County, the vacancy rate—which denotes housing property that is available to be rented or purchased—has dropped substantially. Rental vacancy rates at the county level consistently dropped until reaching a 9-year low of 12.8 percent in 2019. The City saw an even greater drop in vacancy, falling from 6.6 percent in 2010 to 4.9 percent in 2020. This is far below the national vacancy rate of 11.0 percent.

Recent reports in national and local press have highlighted poor upkeep and lack of responsiveness by investor landlords to their tenants. Additionally, the rise in prevalence of bulk rental properties may continue to push rental prices to rise faster than salaries. Low vacancy rates make it more challenging for individuals and families to purchase homes.

Table 3.9-7. Vacancy Rate in the City and Riverside County

Year	City of Riverside Vacancy Rate	Riverside County Vacancy Rate
2010	6.6%	14.3%
2011	6.5%	14.3%
2012	6.4%	14.1%
2013	5.8%	13.7%
2014	5.7%	13.6%
2015	5.7%	13.6%
2016	5.4%	13.3%
2017	5.3%	13.1%
2018	5.0%	12.9%
2019	4.9%	12.8%
2020	4.9%	12.8%

Source: DOF 2020.

Employment

Employment Trends

The City is home to major industries including advanced manufacturing, health and medical services, education, and retail and professional firms. As the region's largest city, and as the Riverside County seat, the City is the location of legal and government services.

To assess California's economic health, the California Employment Development Department provides labor market statistics for the state and different geographic regions of California. Table 3.9-8 illustrates employment trends from 2010 to 2020 for both the City and Riverside County. Both experienced yearly increases in employment from 2010 until 2019, during which time the City gained 26,900 jobs and Riverside County gained 219,600 jobs.

Table 3.9-8. Employment Growth Trends in the City and Riverside County

	City of Riverside		Riverside County	
Type	Employed Persons	Percent Change	Employed Persons	Percent Change
2010	122,000	N/A	839,100	N/A
2011	122,900	0.7%	846,300	0.9%
2012	125,800	2.4%	868,800	2.7%
2013	129,400	2.9%	893,500	2.8%
2014	133,100	2.9%	925,500	3.6%
2015	138,000	3.7%	963,800	4.1%
2016	140,700	2.0%	987,200	2.4%
2017	143,900	2.3%	1,014,900	2.8%
2018	147,000	2.2%	1,041,500	2.6%
2019	148,900	1.3%	1,058,700	1.7%
2020	140,300	-5.8%	997,700	-5.8%

Source: EDD 2021.

Since 2010, there has been a steady increase in employment within the City and Riverside County, with the largest increase in 2015 for both the City (3.7 percent) and Riverside County (4.1 percent). In 2020, there was an employment decline of -5.8 percent in both, which is correlated to the impact of the COVID-19 pandemic and impacts on the economy and job sectors.

Existing Employment

Table 3.9-9 shows the breakdown of the City's employment by occupation and industry. According to the data, the largest industry sector in 2019 was educational services, and health care and social assistance, which accounted for approximately 23.88 percent of civilian jobs. According to the ACS, the City had an employed civilian labor force (16 years and older) of 151,989 persons in 2019 with a margin of error of ±1,638 persons.

Table 3.9-9. City of Riverside Employment by Industry 2020

Industry	Number	Percent
Agriculture, forestry, fishing and hunting, and mining	944	0.6%
Construction	12,848	8.5%
Manufacturing	16,527	10.9%
Wholesale	4,228	2.8%
Retail Trade	18,001	11.8%
Transportation and warehousing, and utilities	9,870	6.5%
Information	1,711	1.1%
Finance and insurance, and real estate and rental and leasing	6,571	4.3%
Professional, scientific, and management, and administrative and waste management services	14,620	9.6%
Educational services, and health care and social assistance	36,171	23.8%
Arts, entertainment, and recreation, and accommodation and food services	15,446	10.2%
Other services, except public administration	7,974	5.2%
Public administration	7,078	4.7%
Total civilian employed population 16 years and over	151,989	100%

Source: U.S. Census Bureau 2019.

3.9.3 Regulatory Setting

State

California Housing Element Law

California law recognizes the vital role that local governments play in the supply and affordability of housing. Each governing body of a local government is required to adopt a comprehensive, long-term general plan for its physical development. The housing element is one of the seven mandated elements of the general plan.

Housing element law, enacted in 1969, mandates that local governments adequately plan to meet the existing and projected housing needs of all economic segments of the community. The law acknowledges that, for the private market to adequately address housing needs and demand, local governments must adopt land use plans and regulatory systems that provide opportunities for, and do not unduly constrain, housing development. As a result, housing policy in the state rests largely upon the effective implementation of local general plans and local housing elements. Housing element law also requires the Department of Housing and Community Development review local housing elements for compliance and to report its written findings to the local government.

Assembly Bill 1233 (2005)

Assembly Bill (AB) 1233 amended the state housing law to promote the effective and timely implementation of local housing elements. If a local government fails to implement programs in its housing element to identify adequate housing sites or fails to adopt an adequate housing element, this bill requires them to zone or rezone adequate sites by the first year of the new planning period.

The rezoning of sites is intended to address any portion of the Regional Housing Needs Assessment (RHNA) obligation that was not met because a jurisdiction failed to identify or make available adequate sites in the previous planning period. Specifically, AB 1233 applies to local governments that:

- Failed to adopt an updated housing element for the prior planning period
- Adopted a housing element that the California Department of Housing and Community Development found non-compliant due to failure to substantially comply with the adequate site requirement
- Failed to implement the adequate sites programs to make sites available within the planning period
- Failed to identify or make available adequate sites to accommodate a portion of the regional housing need

Where a local government failed to identify or make adequate sites available in the prior planning period, they must zone or rezone adequate sites to address the unaccommodated housing need within the first year of the new planning period. In addition to demonstrating adequate sites for the new planning period, the updated housing element must identify the unaccommodated housing need by income level. To determine the unaccommodated need, jurisdictions may take the following steps:

- Subtract the number of units approved or constructed (by income) since the beginning of the previous planning period's RHNA baseline date.
- Subtract the number of units that could be accommodated on any appropriately zoned sites specifically identified in the element adopted for the previous planning period (not counted above).
- Subtract the number of units accommodated on sites that have been rezoned for residential development pursuant to the site identification programs in the element adopted for the prior planning period.
- Subtract the number of units accommodated on sites rezoned for residential development independent of the sites rezoned in conjunction with the element's site identification programs as described above.

California's Sustainable Communities and Climate Protection Act (Senate Bill 375 [2008])

SB 375 aligns land use and transportation planning to link development with transit-accessible places and reduce car dependency. SB 375 is the land use component of California's wider strategy to reduce greenhouse gas emissions, codified by the 2006 Global Warming Solutions Act (AB 32). AB 32 enabled the state to regulate emission sources and set the aggressive goal of reducing emissions to 1990 levels by 2020. SB 375 requires California Metropolitan Planning Organizations (MPOs) to create an SCS as part of the federally mandated RTP. SCSs lay out the locations and types of development needed to lower vehicle miles traveled and meet greenhouse gas emission reduction targets.

SB 375 affects housing-related planning and policy in California in three main ways. First, SB 375 requires the MPOs to develop an SCS, as part of their federally mandated RTP. The SCS must lay out

plans for development patterns that would accommodate projected growth, while reducing vehicle miles traveled and thus greenhouse gas emissions. Second, SB 375 aligns the existing RHNA planning process with the SCS, in an effort to encourage local governments to plan for housing development consistent with the SCS. Third, SB 375 allows for streamlining of the CEQA review process for SCS-consistent development projects.

Alignment of Housing and Regional Transportation Plans

SB 375 promotes consistency between RTPs and regional housing policy. It requires the RTP to plan for the RHNA, and the RHNA to be consistent with the RTP's projected development pattern. SB 375 also aligned the RHNA with the regional transportation planning process and created an 8-year planning period for cities within MPOs. Allocation of housing share to various cities and counties must be consistent with the SCS.

Implementation of Housing Element

SB 375 extended the time for a local government to review and revise housing elements (i.e., the RHNA planning process) from 5 years to 8 years in certain areas within the state, including nonattainment regions[1] covered by an MPO. SB 375 requires the development of an 8-year program that includes a schedule of actions, with timetables for each action, during the program period. If the local agency fails to submit a valid housing element, it is subject to a 4-year review cycle.

Rezoning

If a local government does not identify enough sites to accommodate its housing need, it must adopt a program to make adequate sites available, including a program for rezoning sites to provide lower-income housing. Pre-SB 375 housing law, cities asserted they were only required to identify actions that would be undertaken to make sites available to accommodate various housing needs—that they were not mandated to actually adopt the rezonings included in the housing element programs. SB 375, however, provides that communities preparing an 8-year housing element must complete all required rezonings if the available housing sites inventory does not identify adequate sites to accommodate the RHNA obligation. The planned rezonings must include "minimum density and development standards" for all sites, and, for sites designated for very low- and low-income housing, rezonings must provide for "by right" zoning at certain minimum densities, with no discretionary approvals allowed except design review and subdivision map approval. CEQA review cannot be required unless a subdivision map is needed. The programmed rezonings must be completed within certain timeframes.

California Housing Crisis Act of 2019 (SB 330)

SB 330 was signed by Governor Newsom in 2019 as a means to combat the state's growing housing crisis. It applies to all urbanized areas or urban clusters as defined by the U.S. Census Bureau

[1] A "nonattainment area" means any geographic region of the United States that has been designated by the Environmental Protection Agency as a nonattainment area under Section 107 of the Clean Air Act for any pollutants for which National Ambient Air Quality Standards exist (23 Code of Federal Regulations 450.104). An MPO in a nonattainment region is required to adopt its RTP every 4 years. The SCS will be adopted as part of its RTP. An MPO that is not in a nonattainment region is required to adopt its RTP not less than every 5 years. SB 375 allows such an MPO to elect to adopt the RTP every 4 years. The purpose of such an election would be to take advantage of the provisions of SB 375 that allow for an 8-year planning period for a housing element (Government Coode 65080(b)(2)(L)).

(California Legislative Information 2019). The legislation's goal is to increase California's housing stock by 3.5 million new units by 2025. To streamline residential development, a new preliminary application process is established, which includes basic information regarding a project such as:

- Site characteristics
- Project plans
- Certain environmental concerns
- Facts related to any potential density bonus
- Certain coastal zone–specific concerns
- Number of units to be demolished
- Location of recorded public easements

SB 330 further streamlines housing development by reducing the amount of hearings (e.g., workshops, planning commission meetings, city council meetings, subcommittee meetings) to five or fewer for a qualifying project. A shortened approval time of 90 days instead of 120 days from the EIR certification time is included in the bill to also streamline development processes.

Under SB 330, where housing is an allowed use, public agencies may not change a land use designation to remove housing as an allowed use or reduce the intensity of residential uses unless concurrent action is taken to change the standards applicable to other parcels to ensure there is no net loss in residential capacity. Local jurisdictions are no longer able to impose new development standards that would reduce the zoned capacity for housing or adopt new design standards that are not objective. Specifically, an objective standard involves no personal or subjective judgment by a public official and is uniformly verifiable by reference to criteria that are available to the applicant at the time of application. Per SB 330, a design review process is required to include objective development standards, as defined above. Demolition of existing low-income units is only allowed if certain conditions related to affordability and tenant protections are met. Local governments are no longer able to limit the annual number of land use approvals or permits necessary for the approval and construction of housing, create caps on the amount of constructed housing units, or limit the population size of their city.

Assembly Bill 1397

California's AB 1397 made a number of changes to housing element law by revising what could be included in a local government's inventory of land suitable for residential development. AB 1397 changed the definition of land suitable for residential development to increase the number of multi-family sites. Identified sites must be "available" and "suitable" for residential development and have a "realistic and demonstrated potential" for redevelopment during the planning period. In addition, AB 1397 requires housing element inventory sites to be 0.5 acre to 10 acres, have sufficient infrastructure, or be included in a program to provide such infrastructure, to support and be accessible for housing development. The local government must specify the realistic unit count for each site and whether it can accommodate housing at various income levels.

Senate Bill 166

SB 166 (2017) requires a local government to ensure that its housing element inventory can accommodate its share of the regional housing need throughout the planning period. It prohibits

them from reducing, requiring, or permitting the reduction of the residential density to a lower residential density than what was used by the California Department of Housing and Community Development for certification of the housing element, unless the city or county makes written findings supported by substantial evidence that the reduction is consistent with the adopted general plan, including the housing element. In such cases, any remaining sites identified in the housing element update must be adequate to accommodate the jurisdiction's share of the regional housing need. A local government may reduce the residential density for a parcel only if it identifies sufficient sites remaining within the housing element as replacement sites, so that there is no net loss of residential unit capacity.

Regional

Southern California Association of Governments' Regional Transportation Plan/Sustainable Communities Strategy

In September 2020, SCAG adopted the 2020–2045 RTP/SCS (referred to as *Connect SoCal*), which includes goals to increase mobility and enhance sustainability for the region's residents and visitors. The RTP/SCS encompasses three principles to improve the region's future: mobility, economy, and sustainability. As previously discussed, the RTP/SCS includes population, housing, and employment growth projections for 2045. These growth projections are used in SCAG's transportation modeling and shape SCAG's regional planning efforts, as outlined in the RTP/SCS. The RTP/SCS minimizes increases in regional traffic congestion by focusing growth, density, and land use intensity within existing urbanized area as the general land use growth pattern for the region while enhancing the existing transportation system and integrating land use into transportation planning. The RTP/SCS recommends local governments accommodate future growth within existing urbanized areas to reduce vehicle miles traveled, congestion, and greenhouse gas emissions.

Southern California Association of Governments' Regional Housing Needs Assessment

The RHNA is a key tool to plan for growth. Communities have to plan, consider, and decide how they will address this need through the process of completing the housing elements of their general plans. The RHNA does not necessarily encourage or promote growth, but rather allows communities to anticipate growth, so that they can grow in ways that enhance quality of life; improve access to jobs, transportation, and housing; and do not adversely affect the environment.

The RHNA is completed periodically by SCAG and its counterparts in other parts of the state, as mandated by state law. It consists of two measurements to meet the housing needs: existing need and future need. The existing need assessment examines variables from the most recent Census to measure ways in which the housing market is not meeting the needs of current residents. These variables include the number of low-income households paying more than 30 percent of their income for housing, as well as severe overcrowding (defined as housing units with more than 1.5 occupants per bedroom). The future need for housing is determined primarily by the forecasted growth in households in a community. Each new household, created by a child moving out of a parent's home, by a family moving to a community for employment, and so forth, creates the need for a housing unit.

The housing need for new households is then adjusted to account for an ideal level of vacancy needed to promote housing choice and moderate cost, and encourage acceptable levels of housing

upkeep and repair. In the SCAG region, many communities currently have more than the ideal number of vacancies, and thereby the vacancy adjustment is, in those cases, subtracted from the total housing need. Finally, a second adjustment is made to account for units expected to be lost due to demolition, natural disaster, or conversion to non-housing uses. The sum of these factors—household growth, vacancy need (generally a negative number), and replacement need—form the new housing need for a community. Finally, the RHNA considers how each jurisdiction might grow in ways that will decrease the concentration of low-income households in certain communities. The need for new housing is distributed among income groups so that each community moves closer to the regional average income distribution.

The housing element cycle covering the 2013–2021 period included an RHNA obligation of 8,283 units, of which only a portion was built during the last 8 years. The 6th cycle comes when California faces a statewide housing shortage that is affecting all Californians by raising the price of housing and the cost of construction, and by increasing homelessness.

In the 2021–2029 housing element cycle (6th cycle), the City's RHNA obligation is a minimum of 18,458 new housing units (as shown in Table 3.9-10). Given that 100 percent of potential housing sites will not be developed to full potential, the City has provided a buffer of approximately 5,500 dwelling units (approximately 30 percent over and above the RHNA obligation) to provide for no net loss pursuant to SB 166, and thus the City will identify space for up to 24,000 new homes for the 2021–2029 RHNA cycle.

Table 3.9-10. City of Riverside 2021–2029 Regional Needs Assessment

Income Category	Units
Very low income	4,861
Low income	3,064
Moderate income	3,139
Above moderate income	7,394
Total	18,458

Local

GP 2025 was adopted in November 2007 and considers the continued growth of the City to 2025. GP 2025 serves as the major tool for directing growth within the City and presents a comprehensive plan to accommodate the City's growing needs. GP 2025 is intended to implement the community's vision for what Riverside can be in 2025. Descriptions of individual elements are provided in Section 3.7, *Land Use and Planning*.

Table 3.9-11 presents an overview of GP 2025 and other local plans, policies, and programs related to population and housing.

Table 3.9-11. Relevant Riverside General Plan and Specific Plan Policies

Plan	Policy
Riverside General Plan 2025	
Land Use and Urban Design Element	Policy LU-8.1 Ensure well-planned infill development Citywide, allow for increased density in selected areas along established transportation corridors.

Plan	Policy
	Policy LU-8.2: Avoid density increases or intrusion of nonresidential uses that are incompatible with existing neighborhoods.
	Policy LU-8.3. Allow for mixed-use development at varying intensities at selected areas as a means of revitalizing underutilized urban parcels.
	Policy LU-9.3: Designate areas for urban land uses where adequate urban levels of public facilities and services exist or are planned, in accordance with the public facilities and service provisions policies of this General Plan.
	Policy LU-9.4: Promote future patterns of urban development and land use that reduce infrastructure construction costs and make better use of existing and planned public facilities when considering amendments to the Land Use Policy Map (Figure LU-10).
	Policy LU-9.5: Encourage the design of new commercial developments as "integrated centers," rather than as small individual strip development. Integrate pedestrian access, parking, access, building design and landscape themes across all parcels in the commercial center to unify the development.
	Policy LU-9.6: Discourage strip commercial development and encourage a pattern of alternating land uses along major arterials with "nodes" of commercia development separated by other uses such as residential, institutional or office.
	Policy LU-9.7: Protect residentially designated areas from encroachment by incompatible uses and from the effects of incompatible uses in adjacent areas. Uses adjacent to planned residential areas should be compatible with the planned residential uses and should employ appropriate site design, landscaping and building design to buffer the non-residential uses.
	Policy LU-10.1: Discourage the premature development of non-urbanized areas and encourage growth through such programs as the Residential infill Incentive Program, first in undeveloped and under-developed areas within, adjacent to or in close proximity to existing urbanized neighborhoods.
	Policy LU-10.2: Review the Capital Improvement Program of the City and local public works projects of other local agencies within the corporate boundaries of Riverside annually for consistency with this General Plan, pursuant to Government Code Sections 65401 et. seq. and City Code Title 19, 19.050.030 (B).
	Policy LU-10.3: Time the provision of capital improvements to ensure that all necessary public services and facilities for an area planned for new urban development are in place when development in the area occurs.
	Policy LU-10.4: Require development projects to be timed and phased so that projects are not occupied prior to the provision of necessary urban services.
	Policy LU-10.5: Consider the availability of public facilities and services when evaluating proposals for annexation of property into the City of Riverside.

Plan	Policy
Specific Plans	
Canyon Springs Business Park Specific Plan	There are no applicable policies relevant to the Project regarding population and housing.
Downtown Specific Plan	Policy H-1-1: Provide a variety of housing options, including medium and high-density apartments and condominiums, live/work loft space, and mixed-use buildings with a residential component
	Policy H-1-2: Ensure the preservation and enhancement of the single-family residential neighborhoods in the Downtown.
	Policy H-1-4: Encourage adaptive reuse of existing structures, or the development of new buildings, for the purpose of live/workspace in the Raincross, North Main Street Specialty Services, Almond Street and Prospect Place Office Districts.
	Policy H-1-5: Encourage and promote new high density residential projects and the use of upstairs spaces in existing buildings in the Raincross District for housing to increase housing options and help bring daytime, evening, and weekend activity to the Downtown.
	Policy H-1-7: Promote housing affordability through diversification of housing for varied income groups.
Hunter Business Park Specific Plan	There are no applicable policies relevant to the Project regarding population and housing.
La Sierra University Specific Plan	There are no applicable policies relevant to the Project regarding population and housing.
Magnolia Avenue Specific Plan	Objective 1: Restore the Magnolia/Market Corridor to its historical role as a scenic, "showcase roadway" that spans the City of Riverside while updating its function as a key transit corridor to support future growth. (General Plan Objective LU-12)
	Policy 1.6: Support and encourage the redevelopment of the Magnolia Avenue corridor with mixed-use development. (General Plan Policy LU-58.7)
Riverside Marketplace Specific Plan	There are no applicable policies relevant to the Project regarding population and housing.
University Avenue Specific Plan	There are no applicable policies relevant to the Project regarding population and housing.

Sources: City of Riverside 1991, 2002, 2005, 2007, 2009, 2017a, 2017b, 2019.

Policy Consistency

The Project would be consistent with GP 2025 and Specific Plan goals and policies as described in Table 3.9-11. As discussed in Chapter 2, *Project Description*, one of the preliminary objectives of the Project is to ensure affordable housing is added across the City and not concentrated in areas with lower access to amenities or near sources of pollution. The Housing Element Update includes a guiding principle that seeks to equitably distribute a mix of housing types, including ownership and rental, that is safe and affordable for people of all income levels, backgrounds, and ages and that meets the needs of current and future Riverside residents.

The principles, policies, actions, and programs within the Housing Element relate directly to, and must be consistent, with other elements of GP 2025. As part of the adoption of the Housing Element,

the City will modify applicable policies in other elements as necessary to maintain consistency. Pursuant to new state law, the City is updating the Public Safety Element concurrent with the Housing Element update to include an analysis of fire, flood, geologic, seismic, traffic, and public safety hazards and policies to reduce the potential loss of life from these hazards. The Public Safety Element will address new state requirements including environmental justice issues and climate change adaptation and resilience.

3.9.4 Methodology and Thresholds of Significance

The analysis of the Project's impacts on population and housing was conducted using a review of the most current population and housing statistics and projections available for the City. These statistics include SCAG's 2021–2029 6th cycle RHNA, Riverside's 2021–2029 Housing Element data, Riverside's GP 2025 background data, and DOF estimates and projections. The following information on population, housing, and employment for the planning area was used in this analysis from several sources:

- **California Department of Finance.** DOF prepares and administers California's annual budget. Other duties include estimating population demographics and enrollment projections. DOF's Table E-5, "City/County Population and Housing Estimates," reports on population and housing estimates for the state, counties, and cities, benchmarked to base year 2010.
- **Southern California Association of Governments.** SCAG's 2020–2045 RTP/SCS growth forecast process projects growth in employment, population, and households at the regional, county, jurisdictional, and sub-jurisdictional levels. The Demographics & Growth Forecast Technical Report for the 2020–2045 RTP/SCS forecasts employment, housing, and population projections data for 2030–2045.
- **United States Census Bureau.** The official United States Census is described in Article I, Section 2 of the Constitution of the United States. It calls for an actual enumeration of the people every 10 years, to be used for apportionment among the states of seats in the House of Representatives. The United States Census Bureau publishes population and household data gathered in the decennial census.

Thresholds of Significance

An Initial Study was prepared for the Project in April 2021. The following environmental threshold was scoped out from detailed review in this section of the Draft EIR because the impact was determined to be less than significant in the Initial Study:

- Displace a substantial number of existing people or housing, necessitating the construction of replacement housing elsewhere

For a complete discussion of the environmental issues that were scoped out from this Draft EIR, refer to Section 3.15, *Effects Not Found to Be Significant*.

In accordance with Appendix G of the State CEQA Guidelines, the Project would be considered to have a significant effect if it would:

- Create substantial unplanned population growth in an area, either directly (e.g., by proposing new homes and businesses) or indirectly (e.g., through extension of roads or other infrastructure)

3.9.5 Impacts and Mitigation Measures

Impact POP-1: The Project would result in substantial unplanned population growth either directly or indirectly. This impact would be significant and unavoidable.

Housing Element Update, Zoning Code Amendments, and Environmental Justice Policies

The Project includes policies to encourage housing, meet the City's housing needs with diverse household types, and provide for households that are vulnerable to housing insecurity. The expectation is that as growth occurs, housing would serve all income levels, including very low-, low-, moderate-, and above-moderate-income residents and special-needs residents. The Project is a policy-level planning effort that encourages and facilitates the development and redevelopment of a range of housing types and affordability levels while facilitating mixed-use development and public safety infrastructure.

The Housing Element Update includes environmental justice policies to facilitate equitable distribution of housing throughout the City. Due to the environmental justice policies being a policy-level planning effort, these policies would not create unplanned growth directly or indirectly. Additionally, the Project does not include specific development proposals. Future housing development facilitated by the Project would occur as market conditions allow and at the discretion of individual property owners.

Opportunity Sites have been identified to accommodate future housing and mixed-use development; this includes potential redevelopment sites that will help the City meet housing demand. The Project involves 239 acres that do not require zoning changes and 581 acres that would require general plan amendments, Zoning Code changes, and Specific Plan amendments, for a total of 870 parcels comprising 820 acres. The Housing Element Update proposes to rezone up to 581 acres within City boundaries to accommodate a variety of housing types and densities to accommodate the needs of households of all income levels. In addition to rezoning, the Housing Element will require amendments to seven of the City's Specific Plans including mapping and land use changes to accommodate Opportunity Sites that have been identified within their boundaries.

Because of the rezoning of sites, there would be an increase in the number of new housing units between 2021 and 2029 up to approximately 24,000 to fulfill the City's RHNA obligation. Rezoning that would occur as part of the proposed Project would allow for development of up to 31,564 housing units, if all sites were developed to the maximum proposed zoning capacity.

Development of affordable housing under the Project would encourage a mix of supportive housing, affordable rental, and affordable homeownership units in both new construction and preservation buildings, which is intended to increase affordable housing in the area rather than create new housing for people outside of the City. The rezoning of Opportunity Sites has the potential to increase the City's population if all housing units are constructed and all residents are new to the City. It is also possible that existing residents that are currently sharing homes may relocate to new units. The increase in mixed-use development could increase employment-generating land uses within the City, thereby inducing direct and indirect population growth in the City.

According to SCAG, the population of the City is projected to increase to 395,800 by 2045, which represents an increase of 20.61 percent from the 2020 population of 328,155 (SCAG 2020b). Based on DOF population and housing estimates, the City's current average household size is 3.28 persons. The increase in population that would potentially result by adding 31,564 new housing units would result in a population increase of 103,530 persons, which would be greater than the SCAG 2045 population projection of 67,645 new residents. Implementation of the Housing Element Update would result in additional housing beyond what is currently allowed under the existing GP 2025 and SCAG projections. This could result in an additional net increase of 47,175 in City population beyond what is currently anticipated at build-out under GP 2025 (increase of 56,355 persons). As the Project would result in projections beyond what was anticipated in the GP 2025 and no mitigation is available to reduce this impact to a less-than-significant level, impacts would be significant and unavoidable.

Public Safety Element Update and Environmental Justice Policies

The Public Safety Element Update policies and implementing actions address natural hazards; transportation hazards; police, fire, and emergency services; pandemic preparedness and response; homelessness; and climate change and resiliency. The policies and implementing actions aim to reduce the risk to the community and to ensure protection from foreseeable natural and human-caused hazards.

Proposed new residential and mixed-use development would be predominantly located in more urbanized areas of the City. Public Safety Element policies and implementing actions could affect the design and construction of planned developments, such as addition of design elements related to emergency access and pedestrian safety. Public Safety Element policies do not include specific development proposals that would create unplanned growth through extension of roads or other infrastructure.

The Public Safety Element Update policies and implementing actions also involve Additional Environmental Justice Policies to address public safety issues within environmental justice communities. Many Public Safety Element Update policies could result in community benefits. No specific infrastructure improvements or projects are identified in the Public Safety Element Update. As this is a policy document, this update would not have any significant indirect or direct environmental effects related to population and housing. Impacts would be less than significant.

3.10 Public Services

3.10.1 Introduction

This section addresses public services in the City of Riverside (City), which include fire protection, police protection, schools, and other public facilities such as libraries and community centers. Parks are discussed in Section 3.11, *Recreation*. This section discusses the existing conditions of public services and evaluates whether future development associated with Project implementation would result in substantial physical impacts on government facilities that provide public services. The analysis methods, data sources, significance thresholds, and terminology used in this section are described in the appropriate subsections below. Details on the location of the Project and a description of Project activities are included in Chapter 2*, Project Description*, of this EIR.

3.10.2 Environmental Setting

Fire Protection

The Riverside Fire Department (RFD) provides fire protection for the City. RFD is an all-hazard emergency service agency that provides fire protection, emergency medical services, fire safety inspections, community education, and emergency preparedness planning and training for the City. RFD's major facilities include 14 fire stations throughout the City, administration and prevention offices, an Emergency Operations Center, and a training center. In addition to the 14 stations that serve the City, the Riverside County Fire Department (RCFD) provides service to the unincorporated territory within the City's Sphere of Influence (SOI). RFD's fire stations, their locations, and associated equipment are listed in Table 3.10-1.

Table 3.10-1. Fire Stations

Station	Address	Neighborhoods Served	Personnel	Station Equipment	Ward
Station 1 – Downtown and Fire Administration	3401 University Ave	Downtown, portions of Northside, portions of Wood Streets, portions of Grand, portions of Victoria, portions of eastside, and portions of Hunter Industrial Park	One battalion chief, two captains, two engineers, three fighter/ paramedics, and two firefighters	Engine 1, Truck 1, Squad 1, Battalion 1, Brush 1, ATV 1, and Utility 1	1
Station 2 – Arlington	9449 Andrew St	Arlington, Arlington South, portions of Arlanza, portions of La Sierra, portions of Arlington Heights, portions of Presidential Park, and portions of Ramona	One battalion chief, two captains, two engineers, three firefighter/ paramedics, and two firefighters.	Engine 2, Truck 2, Squad 2, Battalion 2, Haz Mat 2, Support 2, and Utility 2	5

Station	Address	Neighborhoods Served	Personnel	Station Equipment	Ward
Station 3 – Magnolia Center (Midtown)	6395 Riverside Ave	Magnolia Center, portions of Victoria, Wood Streets, portions of Grand, portions of Casa Blanca, portions of Ramona, and portions of Hawarden Hills	Two captains, two engineers, two firefighter/ paramedics and one firefighter	Engine 3, Truck 3, Rescue 3, Water Rescue 3, Utility 3, ATV 3, HART 3	3
Station 4 – University	3510 Cranford Ave	Eastside, portions of Victoria, University, and Hunter Industrial	One captain, one engineer, one firefighter, and one firefighter/ paramedic	Engine 4 and Water Tender 4	2
Station 5 – Airport	5883 Arlington Ave	Airport, portions of Ramona, portions of Grand, and portions of Magnolia Center	One captain, one engineer, one firefighter, and two firefighter/ paramedics	Engine 5, Squad 5, Engine 835, Squad 835, Breathing Support 5, and Water Tender 5	3
Station 6 – Northside	1077 Orange St	Northside and portions of Hunter Industrial Park	One captain, one engineer, one firefighter, and one firefighter/ paramedic	Engine 6 and Engine 836	1
Station 7 – Arlanza	10191 Cypress Ave	Arlanza, portions of La Sierra Acres, and portions of La Sierra Hills	One captain, one engineer, one firefighter, and one firefighter/ paramedic	Engine 7, Utility 7, and Brush 7	7
Station 8 – La Sierra	11076 Hole Ave	La Sierra, portions of La Sierra Hills, portions of La Sierra Acres, and portions of Arlanza	One captain, one firefighter, and one firefighter/ paramedic	Engine 8, Utility 8, and Engine 369	6
Station 9 – Mission Grove	6674 Alessandro Blvd	Canyon Crest, portions of Mission Grove, portions of Sycamore Canyon, portions of Hawarden Hills, portions of Victoria, and portions of Alessandro Heights	One captain, one engineer, one firefighter, and one firefighter/ paramedic	Engine 9 and Engine 839	4

Station	Address	Neighborhoods Served	Personnel	Station Equipment	Ward
Station 10 – Arlington Heights	2590 Jefferson St	Casa Blanca, portions of Presidential Park, portions of Arlington Heights, portions of Hawarden Hills, and portions of Alessandro Heights	One captain, one engineer, one firefighter, and one firefighter/ paramedic	Engine 10	5
Station 11 – Orange Crest	19595 Orange Terrace Parkway	Orangecrest, portions of Alessandro Heights, portions of Mission Grove, and portions of Meridian JPA	One captain, one engineer, one firefighter, and one firefighter/ paramedic	Engine 11, Engine 353, and Battalion 831	4
Station 12 – La Sierra South	10692 Indiana Ave	La Sierra South, portions of La Sierra, portions of Arlington South, and portions of Arlington Heights	One captain, one engineer, one firefighter, and one firefighter/ paramedic	Engine 12, Brush 842, and Decon 12	5
Station 13 – Sycamore Canyon	6490 Sycamore Canyon Blvd	Portions of Canyon Crest, portions of Sycamore Canyon, Sycamore Canyon Business Park and Canyon Springs, and portions of Meridian JPA	One captain, one engineer, one firefighter, one firefighter/ paramedic	Truck 13, Patrol 13, Engine 843, and Utility 13	2
Station 14 – Canyon Crest	725 Central Ave	Canyon Crest, portions of Sycamore Canyon Park, and portions of University	One captain, one engineer, one firefighter, and one firefighter/ paramedic	Engine 14, Engine 8635, Quad 14A, Quad 14B, and Utility 14	2

Source: City of Riverside 2021a.

RFD has a mutual aid agreement with RCFD, and responses to emergencies would be provided with the closest resources, regardless of the jurisdiction. RFD's Fire Department Operations Division responds to more than 25,000 calls for service annually. The average time for service calls is 7 minutes and 59 seconds (McDowell pers. comm. 2021). RFD has established a performance goal for emergency response to arrive within 8 minutes of dispatch over 90 percent of the time, slower than the 5-minute response time that is generally preferred by fire officials for urban areas. Ensuring that a high level of service can be provided over the long-term is a community goal (City of Riverside Fire Department 2021; City of Riverside 2021b). (Note: the proposed Public Safety Element Update policies include actions that include updated standards for response times.)

The Riverside Municipal Code (RMC), Chapter 16.52, *Development Fees for Fire Stations,* provides the City with the ability to collect development fees for the construction and purchase of land for fire stations as well as for the acquisition of equipment and furnishings to equip fire stations. However, to date, the City has not adopted a resolution establishing those development fees, so no fees are currently being collected. RFD implemented service improvements through application of Riverside Measure Z funding and achieved an Insurance Services Office (ISO) Rating of ISO Class 1—the

highest awarded level—in December 2019 (City of Riverside Fire Department 2019). Measure Z also continues to provide funding for RFD staff positions, training, and vehicle replacement and maintenance (City of Riverside 2020).

Police Protection

The Riverside Police Department (RPD) provides police protection services to the City. Four RPD stations serve the City. The locations and services provided at each station are shown in Table 3.10-2. The Field Operations Division provides first response to all emergencies, performs preliminary investigations, and provides basic patrol services for the City. The Field Operations Division is managed by a Captain who oversees patrol officers, sergeants, lieutenant Watch Commanders, an Executive Lieutenant, and civilian support staff. The Field Operations Division includes over 130 patrol officers, 24 Sergeants, six Lieutenant Watch Commanders, one Executive Lieutenant, one Traffic Lieutenant, and a civilian support staff position (City of Riverside 2021b).

Table 3.10-2. Police Stations

Station	Address	Services/Divisions	Personnel	Ward
Orange Station	4102 Orange St	Headquarters, Support Services Division – Personnel Bureau, Community Services, Records Bureau, and Administrative Functions	70	1
Lincoln Station	8181 Lincoln Ave	Field Operations Division – Patrol/Traffic Functions, and Technical Services Unit (Bomb Squad)	184	4
Magnolia Station	10540 Magnolia Ave	Investigations and Special Operations Divisions – Investigations, Forensics, Property Room, Communications (Dispatch), Neighborhood Policing Centers, and Training Bureau	281	6
Aviation	7020 Central Ave	Air Support, METRO (SWAT) Team	25	3

Source: Payne pers. comm.

RPD police officers strive to respond within 7 minutes to Priority 1 calls (life-threatening). Officers strive to respond to less-urgent Priority 2 calls within 12 minutes (non-life-threatening).

The City has reconsidered RPD's centralized form of organization, and RPD has implemented a decentralized Neighborhood Policing Center model in an effort to provide more equitable and responsive services across the City. Additionally, RPD does not use a formula for calculating the number of officers per capita. According to the RPD Policy Manual, adequate staffing ensures that proper supervision is available for all shifts. RPD intends to balance the employee's needs against the need to have flexibility and discretion in using personnel to meet operational needs. While balance is desirable, the paramount concern is the need to meet operational requirements of RPD (City of Riverside Police Department 2020). (Note: The proposed Public Safety Element Update policies include actions that include updated standards for response times.)

Public Schools

The City is served by two public school districts: the Riverside Unified School District (RUSD) and the Alvord Unified School District (AUSD). RUSD is the fourteenth largest school district in California. RUSD has 47 schools, including 30 elementary schools, one special-education preschool, six middle schools (grades 7–8), five comprehensive high schools, two continuation high schools,

and the Riverside Virtual School. In addition to the two public school districts within the City, relatively small southeastern portions of the City (generally areas south of Dan Kipper Drive, north of Alessandro Boulevard, and east of Sycamore Canyon Wilderness Park) are served by Moreno Valley Unified School District (MVUSD).

AUSD includes 14 elementary schools, four middle schools, three comprehensive high schools, one continuation high school, and one alternative education center. Approximately 42,000 students are enrolled in grades K–12 at RUSD, and 20,000 students are enrolled at AUSD. In addition, RUSD has nearly 7,000 adult education students enrolled in its district (City of Riverside 2021c, 2021d). Figure E-1 of the *Riverside General Plan 2025* (GP 2025) Education Element shows education facilities in the City. Table 3.10-3 and Table 3.10-4 list the RUSD and AUSD schools, respectively, in the City and their locations.

Table 3.10-3. Riverside Unified School District Schools in the City

School	Location	Ward
Elementary Schools		
Adams	8362 Colorado Ave	5
Alcott	2433 Central Ave	3
Patricia Beatty	4261 Latham St	1
Bryant	4324 3rd St	1
Castle View	6201 Shaker Dr	2
Emerson	4660 Ottawa Ave	2
Franklin	19661 Orange Terrace Pkwy	4
Fremont	1925 Orange St	1
Harrison	2901 Harrison St	5
Hawthorne	2700 Irving St	5
Highland	700 Highlander Dr	2
Hyatt	4466 Mount Vernon Ave	2
Jackson	4585 Jackson St	5
Jefferson	4285 Jefferson St	3
John F. Kennedy	19125 Schoolhouse Ln	4
Liberty	9631 Hayes St	5
Longfellow	3610 Eucalyptus Ave	2
Madison	5700 Arlington Ave	5
Magnolia	3975 Maplewood Pl	1
Mark Twain	19411 Krameria Av	4
Monroe	8535 Garfield St	5
Mt. View	6180 Streeter Ave	3
Pachappa	6200 Riverside Ave	3
REACH Leadership Academy	3422 Rustin Ave	1
Sunshine	9390 California Ave	5
Taft	959 Mission Grove Pkwy N	4
Tomas Rivera	20440 Red Poppy Ln	4
Victoria	2910 Arlington Ave	3

School	Location	Ward
Washington	2760 Jane St	3
Middle Schools		
Amelia Earhart	20202 Aptos St	4
Central	4795 Magnolia Ave	1
Chemawa	8830 Magnolia Ave	5
Gage	6400 Lincoln Ave	3
Frank Miller	17925 Krameria Ave	4
Sierra	4950 Central Ave	3
University Heights	1155 Massachusetts Ave	1
High Schools		
Arlington	2951 Jackson St	5
John W. North	1550 3rd St	2
Martin Luther King	9301 Wood Rd	4
Poly	5450 Victoria Ave	3
Ramona	7675 Magnolia Ave	3

Source: City of Riverside 2021c.

Table 3.10-4. Alvord Unified School District Schools in the City

School	Location	Ward
Elementary Schools		
Arlanza	5891 Rutland Ave	6
Collett	10850 Collett Ave	6
Foothill	8230 Wells Ave	6
La Granada	10346 Keller Ave	7
McAuliffe	4100 Golden Ave	7
Myra Linn	10435 Branigan Way	6
Alan Orrenmaa	3350 Fillmore St	6
Philip Stokoe	4501 Ambs Dr	7
Rosemary Kennedy	6411 Mitchell Ave	7
Terrace	6601 Rutland Ave	7
Twinhill	11000 Campbell Ave	7
Valley View	11750 Gramercy Pl	7
Middle Schools		
Arizona	11045 Arizona Ave	5
Loma Vista	11050 Arlington Ave	7
Wells	10000 Wells Ave	6
High Schools		
Alvord Continuation	3606 Pierce St	6
Hillcrest	11800 Indiana Ave	6
La Sierra	4145 La Sierra Ave	6
Norte Vista	6585 Crest Ave	7

Source: City of Riverside 2021d.

Other Public Facilities

Libraries

The Riverside Public Library (RPL) system provides library service to the City. Eight existing libraries serve the City, with an additional library (Main Library) to be opened in 2021. Four university and college libraries also serve the City. The locations of libraries that serve the City are shown in Table 3.10-5. Collectively, RPL offers the following services at their library locations:

- Books and E-media, including E-books
- Wi-Fi and internet access
- Computer, laptop, and iPad access
- Printing
- Home delivery of books and audiovisual materials
- Technology and literacy programs
- Reference and research services
- Public meeting rooms
- Veteran resource center
- Community outreach efforts
- Annual summer reading program
- Cultural programming
- Makerspace containing computers, 3-D printers, audio and video capture and editing tools, and traditional arts and crafts supplies
- Youth services
- Toy-lending library

Table 3.10-5. Public Libraries in the City

Library/Branch	Address	Square Footage	Ward
Arlington Branch	9556 Magnolia Ave	13,000	5
Arlanza Branch	8267 Philbin Ave	10,000	6
Ssgt. Salvador J. Lara Casa Blanca Library	2985 Madison St	10,000	4
SPC. Jesus S. Duran Eastside Library	4033-C Chicago Ave	10,816	2
La Sierra Branch	4600 La Sierra Ave	11,500	7
Main Library[1]	3581 Mission Inn Ave	60,000	1
Marcy Branch	6927 Magnolia Ave	8,769	3
Orange Terrace	20010-B Orange Terrace Pkwy	13,000	4
New Main Library (under construction)[1]	3900 Mission Inn Ave	42,000	1
University of California, Riverside	900 University Ave	38,871	2
La Sierra University	4500 Riverwalk Pkwy	60,200	7
Cal Baptist University	8432 Magnolia Ave	47,000	5

Source: City of Riverside 2021e.
[1] New Main Library opened on June 26, 2021, and replaced the existing Main Library.

Construction of the New Main Library is substantially complete and the new facility replaced the existing Main Library on June 26, 2021. It will house 60,000 books and other materials, a community room, a bookstore space, a 100-seat community room, a two-story city archive, and an outdoor arcade space for community events such as youth performances, farmers markets, concerts, and family festivals.

Library service needs and standards are determined by the following methods: volumes by population; community need/service gaps (including services provided/not provided by other area departments and agencies); customer requests; and innovation/success of pilot projects. The City does not collect assessed development impact fees on the library's behalf. Library funding sources include the General Fund, trust funds, gift funds/donations, and grants. In addition, voters approved the Riverside Library Parcel Tax (Measure I) in November 2011 to fund library services through June 2022.

3.10.3 Regulatory Setting

Fire Protection

Federal

National Fire Protection Association 1710

The National Fire Protection Association recommends that fire departments respond to fire calls within 6 minutes of receiving the request for assistance for 90 percent of incidents. These time recommendations are based on the demands created by a structural fire. It is crucial to attempt to arrive and intervene at a fire scene prior to the fire spreading beyond the room of origin. Total structural destruction typically starts within 8 to 10 minutes after ignition. Response time is generally defined as 1 minute to receive and dispatch the call, 1 minute to prepare to respond to the fire station or field, and 4 minutes (or less) travel time. (National Fire Protection Association 2020.)

State

California Code of Regulations Title 24, Parts 2 and 9 – Fire Codes

California Code of Regulations (CCR) Part 2 of Title 24 refers to the California Building Code (CBC), which contains complete regulations and general construction building standards of state 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. CBC Part 9 refers to the California Fire Code (CFC), which contains other fire safety-related building standards. In particular, the 2010 CBC Chapter 7A, *Materials and Construction Methods for Exterior Wildfire Exposure*, addresses fire safety standards for new construction. In addition, CBC Section 701A.3.2, *New Buildings Located in Any Fire Hazard Severity Zone*, states:

> New buildings located in any Fire Hazard Severity Zone within State Responsibility Areas, any Local Agency Very-High Fire Hazard Severity Zone, or any Wildland-Urban Interface Fire Area designated by the enforcing agency for which an application for a building permit is submitted on or after January 1, 2008, shall comply with all sections of this chapter.

California Public Resources Code Sections 4290–4299 and General Code Section 51178

Public Resources Code Sections 4290–4299 and General Code Section 51178 require minimum statewide fire safety standards pertaining to: roads for fire equipment access; signage identifying streets, roads, and buildings; minimum private water supply reserves for emergency fire use; and fire fuel breaks and greenbelts. They also identify primary fire suppression responsibilities among the federal, state, and local governments. In addition, any person who owns, leases, controls, operates, or maintains a building or structure in or adjoining a mountainous area or forest-covered, brush-covered, or grass-covered land, or any land covered with flammable material, must follow procedures to protect the property from wildland fires. This regulation also helps ensure fire safety and provide adequate access to outlying properties for emergency responders and safe evacuation routes for residents.

Regional

There are no regional regulations directly applicable to fire protection with respect to the Project.

Local

City of Riverside Fire Department Strategic Plan

The *City of Riverside Fire Department Strategic Plan 2017–2022* identifies RFD's key goals and objectives and articulates the agency's core responsibilities, mission, and guiding principles (City of Riverside 2017a). The plan includes emergency planning goals and objectives for RFD's Emergency Services Division.

City of Riverside Municipal Code

Chapter 16.32.020 of the RMC is adopted as the Uniform Fire Code and states:

> The 2018 International Fire Code as amended by the California State Fire Marshal, also known as the 2019 California Fire Code ("this Code"), including Appendices Chapter 4 , B, C, E, F, G, I, M, and O which prescribes regulations consistent with nationally recognized good practice for the safeguarding, to a reasonable degree, of life and property from the hazards of fire and explosion arising from the storage, handling and use of hazardous substances, materials and devices and from conditions hazardous to life or property in the use or occupancy of buildings or premises is adopted and by this reference is made a part of this Code…

RMC Chapter 16.52, *Development Fees for Fire Stations*, provides for payment of development fees to be used for the purchase of land for and construction of fire stations, and acquisition of equipment and furnishings to equip fire stations. It is noted that the City has not adopted resolutions for RMC Chapter 16.52 and does not currently implement development fees for fire stations.

Riverside General Plan 2025

Public Safety Element

The goal of a jurisdiction's Public Safety Element is to reduce the potential short- and long-term risk of death, injuries, property damage, and economic and social disruption resulting from fires, floods, droughts, earthquakes, landslides, climate change, and other hazards. Other locally relevant safety issues—such as emergency response, hazardous materials spills, crime reduction, and response to global pandemics like COVID-19 beginning in 2020 and continuing through 2021—may also be included. The Public Safety Element directly relates to topics mandated in the Land Use and Urban

Design and Open Space and Conservation Elements as well as a key consideration for the Environmental Justice Policies of the general plan. The Public Safety Element must identify hazards and ways to reduce those hazards to guide local decisions related to zoning and development regulations. Policies and implementable actions may include methods for minimizing risks, as well as ways to minimize economic disruption and speed up recovery following disaster. The City's update to the Public Safety Element will identify public safety issues and needs anticipated to be of ongoing concern to people in the City. The Public Safety Element will ensure that the City takes action to reduce natural and man-made hazards and safety threats as well as respond quickly to any public safety incident. The GP 2025 Public Safety Element includes policies to address the City's fire protection needs. Objectives and policies relevant to the Project are shown in Table 3.10-6 below.

Land Use and Urban Design Element

In compliance with California Government Code Section 65302(a) requirements, the Land Use and Urban Design Element includes existing and proposed land uses as well as their relationship to the City's visionary goals. The element incorporates objectives and policies for land development and usage. The GP 2025 Land Use Element includes policies to address the City's fire protection needs. Policies relevant to the Project are shown in Table 3.10-6 below.

Police Protection

Federal

There are no federal regulations directly applicable to police protection with respect to the Project.

State

There are no state regulations directly applicable to police protection with respect to the Project.

Regional

There are no regional regulations directly applicable to police protection with respect to the Project.

Local

Riverside 2.0 Strategic Plan – Implementing the City Council's Strategic Priorities

The Riverside 2.0 Strategic Plan is intended to be a concise tool for implementing the strategic priorities of the Riverside City Council. The City Council identified seven priorities, including improving quality of life and providing appealing, accessible, and safe venues for community services.

Riverside General Plan 2025

Public Safety Element

The GP 2025 Public Safety Element includes policies to address the City's police protection needs. Policies relevant to the Project are shown in Table 3.10-6 below. Objectives and policies that are proposed for inclusion in the Public Safety Element Update are listed in detail in Chapter 2, *Project Description*.

Land Use and Urban Design Element

The GP 2025 Land Use Element includes policies to address the City's fire protection needs. Objectives and policies relevant to the Project are shown in Table 3.10-6 below.

Public Schools

Federal

There are no federal regulations directly applicable to schools with respect to the Project.

State

California Government Code 66000

According to California Government Code 66000, a qualified agency, such as a local school district, may impose fees on developers to compensate for the impact that a project will have on existing facilities or services. The California legislature passed Senate Bill 50 in 1998, which inserted new language into the Government Code (Sections 65995.5–65995.7) that authorized school districts to impose fees on developers of new residential construction in excess of mitigation fees authorized by Government Code 66000. School districts must meet a list of specific criteria, including the completion and annual update of School Facility Needs Analysis, in order to be legally able to impose the additional fees.

Leroy F. Green School Facilities Act

California Government Code Section 65995 (The Leroy F. Green School Facilities Act of 1998) set base limits and additional provisions for school districts to levy development impact fees and to help fund expanded facilities to house new pupils that may be generated by the development project. Sections 65996(a) and (b) state that such fees collected by school districts provide full and complete school facilities mitigation under CEQA. These fees may be adjusted by the district over time as conditions change.

Regional

There are no regional regulations directly applicable to schools with respect to the Project.

Local

Riverside General Plan 2025 Education Element

The Education Element (City of Riverside 2007a) addresses the educational resources that serve the City and surrounding region. Beyond the City's educational facilities, this element addresses the City's public library system and municipal museum. The Education Element includes objectives and policies intended to ensure a "comprehensive and flexible education in which all sectors, from pre-kindergarten through postsecondary education, offer the resources and services to provide a rigorous and quality education." Objectives and policies relevant to the Project are shown in Table 3.10-6 below.

City of Riverside Municipal Code – School Development Fee

Chapter 16.56, *School Development Fee*, of the RMC establishes coordination between the City and the applicable school district to develop a school development fee for mitigating the impact of residential development on local school districts.

Riverside Unified School District

Property owners and developers pay developer fees to RUSD to mitigate the impact created by new development within RUSD boundaries on its school facilities (RUSD 2019). Level I and Level II fees are primarily applied to industrial and commercial buildings, and residential additions above 500 square feet. Level II fees are for all new residential developments. RUSD is not currently authorized to collect Level III fees.

Alvord Unified School District

AUSD determined that school fees should be levied on new development projects within AUSD boundaries, if findings can be made that such projects will lead to higher student enrollment and increased facility costs. School fees finance school facilities necessitated by students generated from new development. School development fees were recently updated in 2020 and vary for new residential construction, residential addition, commercial/industrial construction, senior housing, and self-storage (AUSD 2020).

Moreno Valley Unified School District

MVUSD also requires landowners and developers to pay developer fees to MVUSD to mitigate the impact created by new development within MVUSD boundaries on its school facilities. MVUSD applies Level I fees to new residential construction on an accessory dwelling unit, room additions or room conversions, and industrial and commercial construction. Level II fees are applied for all new residential developments. MVUSD is not currently authorized to collect Level III fees (MVUSD 2021).

Other Public Facilities

Federal

There are no federal regulations directly applicable to other public facilities with respect to the Project.

State

There are no state regulations directly applicable to other public facilities with respect to the Project.

Regional

There are no regional regulations directly applicable to other public facilities with respect to the Project.

Local

Measure C and Measure I

In 2002, the City placed a $19 annual parcel tax (i.e., Measure C) on the ballot to secure a dedicated funding source for local libraries. The measure passed but had a 10-year term that expired in June 2012. In 2011, Measure I was placed on the ballot to extend the $19 annual parcel tax for another 10 years. The measure also passed. Therefore, the library parcel tax will continue to be collected and used for library services in the City through June 2022. In the past, the Riverside Public Library used Measure C and I funds (along with general funds) to serve City residents through extended hours of operation, books, electronic resources, homework and reading programs, new programming, and acquisitions of new computers.

Riverside General Plan 2025 Public Facilities and Infrastructure Element

The Public Facilities and Infrastructure Element addresses the City's public facilities (i.e., libraries, hospitals, and community centers) and infrastructure, including water service and supply, wastewater, stormwater control, solid waste, electric power, and telecommunications. The element includes goals and policies intended to ensure the City supports well-designed and adequately maintained infrastructure and quality public facilities for its residents.

The Public Facilities and Infrastructure Element policies relevant to the Project are addressed in this section and Section 3.14, *Utilities and Service Systems*. Objectives and policies relevant to the Project are shown in Table 3.10-6.

Table 3.10-6. Relevant General Plan and Specific Plan Policies

Policy Title	Summary
Riverside General Plan 2025	
Public Safety Element	• Objective PS-6: Protect property in urbanized and nonurbanized areas from fire hazards. ○ Policy PS-6.1: Ensure that sufficient fire stations, personnel and equipment are provided to meet the needs of the community as it grows in size and population. ○ Policy PS-6.2: Endeavor to meet/maintain a response time of five minutes for Riverside's urbanized areas. ○ Policy PS-6.3: Integrate fire safety considerations in the planning process. ○ Policy PS-6.4: Promote the use of buildings, setbacks, walls, landscaping, and other design features to buffer and reduce conflicts between adjacent properties. ○ Policy PS-6.5: Promote green building design. ○ Policy PS-6.6: Continue to implement stringent brush-clearance requirements in areas subject to wildland fire hazards. ○ Policy PS-6.7: Continue to involve the City Fire Department in the development review process. ○ Policy PS-6.9: Provide outreach and education to the community regarding fire safety and prevention. • Objective PS-7: Provide high-quality police services to all residents and businesses in Riverside. ○ Policy PS-7.1: Deploy human and financial resources to ensure adequate and equitable distribution of police services.

Policy Title	Summary
	○ Policy PS-7.2: Support the transition of the Riverside Police Department from a centralized agency to one built around precincts as a means of providing more rapid, equitable and proactive community policing services. ○ Policy PS-7.3: Coordinate police services with college and university campus police forces and private security forces. ○ Policy PS-7.4: Coordinate with the Riverside County Sheriff in its efforts to provide law enforcement services within Sphere of Influence areas. ○ Policy PS-7.5: Endeavor to provide minimum response times of seven minutes on a Priority 1 calls and twelve minutes on all Priority 2 calls. • Objective PS-8: Improve community safety and reduce opportunities for criminal activity through appropriate physical design. ○ Policy PS-8.1: Maximize natural surveillance in all new development through physical design features that promote visibility. ○ Policy PS-8.2: Promote land use and design policies and regulations which encourage a mixture of compatible land uses to promote and increase the safety of public use areas and pedestrian travel. ○ Policy PS-8.3: Involve the Police Department in the development review process of public areas relative to building and site plan vulnerabilities to criminal activities. ○ Policy PS-8.4: Coordinate efforts between the Police Department and Planning Division to develop guidelines for implementation of CPTED-related issues. ○ Policy PS-8.5: Continue to encourage residents and apartment managers to become involved in the Crime Free Multi-Housing Program as a way to reduce crime in apartment communities. • Objective PS-9: Minimize the effects from natural and urban disasters by providing adequate levels of emergency response services to all residents in Riverside. o Policy PS-9.1: Maintain an effective, coordinated and up-to-date community-wide emergency response plan. o Policy PS-9.2: Support the Riverside Emergency Management Office in coordinating the City's response to disasters, providing public outreach and presentations and assisting residents to prepare for major events. o Policy PS-9.3: Review and test the City's Emergency Operations Plan periodically to note any deficiencies or practices requiring modification. o Policy PS-9.4: Ensure that equipment and structures designed to provide emergency disaster services are located and designed to function after a disaster or emergency event, or relocate any such structures which are not adequate to provide emergency services o Policy PS-9.5: Provide effective and relevant information to the public regarding disaster preparedness. o Policy PS-9.6: Conduct regularly scheduled disaster exercises to better prepare Police, Fire and other City employees with disaster responsibilities. o Policy PS-9.7: Identify actions to reduce the severity and probability of hazardous occurrences. o Policy PS-9.8: Reduce the risk to the community from hazards related to geologic conditions, seismic activity, flooding and structural and wildland fires by requiring feasible mitigation of such impacts on discretionary development projects. • Objective PS-10: Improve the community's ability to respond effectively to emergencies.