# DIAMOND BAR

## ENVIRONMENTAL IMPACT REPORT 2040

**PUBLIC REVIEW DRAFT | SEPTEMBER 2019**

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# Executive Summary

This Draft Environmental Impact Report (EIR) evaluates the potential impacts of the proposed Diamond Bar 2040 General Plan update and Climate Action Plan, referred to as the "Proposed Project." The Proposed Project was developed in response to policy direction provided by the City Council, Planning Commission, and community. This Draft EIR has been prepared on behalf of the City of Diamond Bar, in accordance with the California Environmental Quality Act (CEQA). The City of Diamond Bar ("City") is the lead agency for this EIR, as defined by CEQA.

An EIR is intended to inform decision-makers and the general public of the potential significant environmental impacts of a proposed project. The EIR also considers the availability of mitigation measures to minimize significant impacts and evaluates reasonable alternatives to the Proposed Project that may reduce or avoid one or more significant environmental effects. Based on the alternatives analysis, an environmentally superior alternative is identified.

This EIR is a program EIR that examines the potential effects resulting from implementing designated land uses and policies in the Proposed Project. The impact assessment evaluates the Proposed Project as a whole and identifies the broad, regional effects that may occur with its implementation. As a programmatic document, this EIR does not assess site-specific impacts. Any future development anticipated by the Proposed Project would be subject to individual, site-specific environmental review, as required by State law. This EIR represents the best effort to evaluate the Proposed Project given its planning horizon through the year 2040. It can be anticipated that conditions will change; however, the assumptions used are the best available at the time of preparation and reflect existing knowledge of patterns of development.

## Proposed Project

The Proposed Project is intended to respond directly to emerging trends and topics in Diamond Bar since the preparation of the current General Plan (adopted in 1995), and to ensure the City of Diamond Bar can accommodate the potential population and job growth through the proposed General Plan's horizon year of 2040. The Proposed Project, which establishes a long-range planning framework and policies, would fully replace the City's existing General Plan and provide a new Climate Action Plan if adopted by the City Council.

The General Plan update was initiated to comprehensively examine the existing conditions in the city and to create a vision for the city's future. Although the Proposed Project does not specify or anticipate when buildout of the city will occur, a horizon of year 2040 is assumed for planning purposes. The purpose and objectives of the Proposed Project, included below, underpin the policies and implementing actions of the Proposed Project.

## PLANNING AREA

The Planning Area encompasses 13,039 acres, of which 9,526 acres (73 percent of the total) is in the city limits and the remaining 3,513 acres (27 percent) is in the Sphere of Influence (SOI). The Planning Area is bounded by the cities of Industry and Walnut to the north, Pomona and Chino Hills to the east, and Brea to the south, and unincorporated Los Angeles county to the west. While Diamond Bar does not have jurisdiction in areas outside of its city limits, general plans commonly consider land outside a city's jurisdictional boundaries that "bear relation to its planning" (California Government Code Section 65300). This typically includes a city's SOI and may also include additional land.

The Sphere of Influence (SOI) is defined as the ultimate physical boundary and service area of the city, and it encompasses both incorporated and unincorporated territory that is envisioned to be the city's ultimate service area. The Los Angeles County Local Agency Formation Commission (LAFCO) reviews and approves proposed boundary changes and annexations affecting the SOI. The SOI, which has remained relatively constant since it was first approved in 1990, includes part of Tonner Canyon, an undeveloped wooded canyon that stretches in a crescent shape from SR-57 northwest to SR-60.

## PURPOSE

California Government Code Section 65300 requires each city and county in California to adopt a general plan "for the physical development of the county or city, and any land outside its boundaries which…bears relation to its planning." The Diamond Bar General Plan can be considered the city's development constitution, containing both a statement of the community's vision of its long-term development as well as the policies to support that vision by guiding the physical growth of the city. The Proposed Project contains policies to guide decision-making related to development, housing, transportation, environmental quality, public services, parks, and open spaces. The Proposed Project is a document to be adopted by the City Council that serves the following purposes:

- Establish a long-range vision that reflects the aspirations of the community and outlines steps to achieve this vision;
- Establish long-range development policies that will guide City departments, Planning Commission, and City Council decision-making;
- Provide a basis for judging whether specific development proposals and public projects are in harmony with plan policies;
- Plan in a manner that meets future land needs based on the projected population and job growth;
- Allow City departments, other public agencies, and private developers to design projects that will enhance the character of the community, preserve environmental resources, and minimize hazards; and
- Provide the basis for establishing and setting priorities for detailed plans and implementing programs, such as the zoning ordinance, subdivision regulations, specific and master plans, and the Capital Improvement Program.

## OBJECTIVES

The Proposed Project provides the basis for the City's land use and development policy and represents the basic community values, ideals, and aspirations that will govern development and conservation. The objective of the proposed General Plan is to implement the Diamond Bar Community's Vision and the seven Guiding Principles., which are further detailed below.

The Community Vision forms the basis for the proposed General Plan's policies. The vision is an expression of the collective hopes and desires that members of the Diamond Bar community have for the City's future, and was formed from all of the input shared by community members throughout the planning process:

> *In 2040, Diamond Bar has a balance of housing and retail choices, ample job and business opportunities, and an abundance of options for gathering and recreation. A lively Town Center provides community members with access to local services, entertainment, employment, and homes in an attractive, walkable environment. Diamond Bar continues to welcome and celebrate cultural diversity, and maintains a safe, quiet, and family-friendly atmosphere where residents of all ages and abilities are happy and healthy and live sustainably. Through thoughtful planning, collaboration, and stewardship, the community is able to meet the needs of current and future generations, both growing as a city and preserving the strong connections and environmental resources that define its "country living" identity.*

The following Guiding Principles support the community vision and provide direction for the policies in the proposed General Plan.

1. **Maintain a welcoming, safe small-town feel.** Continue to cultivate a welcoming, safe small-town feel that is inclusive of Diamond Bar's diverse and changing population while preserving existing neighborhoods.
2. **Promote a family-friendly community.** Promote Diamond Bar's strong and high performing school system, support the City's youth activities and provide affordable housing choices for families to continue to make Diamond Bar a desirable place for families.
3. **Create an inviting Town Center.** Foster the development of a vibrant, pedestrian-oriented Town Center in Diamond Bar that serves as a place for Diamond Bar's residents to shop, dine, and gather.
4. **Develop attractive commercial centers and thriving businesses.** Help Diamond Bar's existing commercial centers and businesses to thrive, and attract new businesses to centrally located focus areas in order to serve the daily needs of residents.
5. **Establish a balanced circulation network.** Improve mobility for all residents, visitors, and workers by providing a diversity of safe and convenient transportation options in a cohesive network, including active transportation, transit, and automobile facilities.
6. **Support Healthy and Sustainable Lifestyles.** Promote human and community health and environmental quality through the provision of parks and open spaces, community programs and services, the preservation of local and regional environmental resources, and the reduction of the greenhouse gas emissions.

7. **Foster a strong, collaborative community.** Provide opportunities for gatherings among friends, families, and the community at large and encourage all members of the community to participate in planning and decision-making for the future.

## ESTIMATED BUILDOUT OF THE PROPOSED PROJECT

Buildout refers to the estimated amount of potential new development and corresponding growth in population and employment that is anticipated by the Proposed Project through the planning horizon year of 2040. Buildout estimates should not be considered a prediction for growth, as the actual amount of development that will occur through 2040 is based on many factors outside of the City's control, including changes in regional real estate and labor markets and other long-term economic and demographic trends. Therefore, buildout estimates represent one potential set of outcomes rather than definitive figures. Additionally, the designation of a site for a specific land use in the Proposed Project does not guarantee that a site will be developed or redeveloped at the assumed density during the planning period, as future development will rely primarily on each property owner's initiative. Buildout projections of this EIR do not include the total amount of potential development that could be accommodated by the Proposed Project. Rather, the buildout assumes that only a portion of the total potential development will occur by 2040.

Table ES-1 Residential Buildout (2040) describes the estimated housing units and population anticipated at buildout of the Proposed Project according to analysis undertaken for the Proposed Project. Table ES-2: Projected Jobs at Buildout (2040) describes the potential jobs anticipated to result from non-residential development shown on the proposed Land Use Diagram on vacant and underutilized sites.

**Table ES-1: Projected Residential Buildout and Population (2040)**

| | *Existing (2016)* | *Future Development* | *2040 Total* |
|---|---|---|---|
| **Housing Units** | **18,913** | **3,264** | **22,177** |
| Single-Family Residential | 13,252 | 142 | 13,394 |
| Multi-Family Residential | 5,661 | 3,122 | 8,783 |
| **Households** | **18,308** | **3,226** | **22,533** |
| **Population** | **57,853** | **8,832** | **66,685** |

*Source: CA Department of Finance, 1/1/2015; Dyett and Bhatia, 2017; Los Angeles County Assessor, 2014; the 2015 Q2 California Employment Development Department.*

**Table ES-2: Projected Residential Buildout and Population (2040)**

| | *Existing (2016)* | *Future Development* | *2040 Total* |
|---|---|---|---|
| **Non-Residential (sq ft)** | **5,564,484** | **1,617,583** | **7,182,066** |
| Retail | 586,659 | 607,283 | 1,193,942 |
| Office | 2,406,803 | 519,892 | 2,926,694 |
| Industrial | 1,052,869 | (203,001) | 849,868 |
| Other | 1,518,153 | 693,409 | 2,211,562 |
| **Jobs** | **14,702** | **7,042** | **21,744** |
| Retail | 1,467 | 1,613 | 3,079 |
| Office | 7,334 | 4,102 | 11,436 |
| Industrial | 2,106 | (406) | 1,700 |
| Other | 3,795 | 1,734 | 5,529 |

*Source: CA Department of Finance, 1/1/2015; Dyett and Bhatia, 2017; Los Angeles County Assessor, 2014; the 2015 Q2 California Employment Development Department.*

# Alternatives to the Proposed Project

The following alternatives are described and evaluated in this EIR, and are summarized in Table ES-3: Comparison of Key Characteristics; Existing, Alternatives, and Proposed Project.

## NO PROJECT ALTERNATIVE

Consistent with Section 15126.6(e)(2) of the CEQA Guidelines, the No Project Alternative represents what would be reasonably expected to occur in the foreseeable future if the Proposed Project, including the Climate Action Plan, were not adopted and the City's current General Plan was left unchanged and in use. This alternative would retain all current land use designations and definitions from the current General Plan as amended to date, and future development in the Planning Area would continue to be subject to existing policies, regulations, development standards, and land use designations of the existing Diamond Bar General Plan. Specifically, there would be no new Town Center Mixed Use, Neighborhood Mixed Use, Transit Oriented Mixed Use, or Community Core Overlay land use designations. All Proposed Project change areas as identified in the Proposed Project would retain their existing 1995 General Plan designations. Policies concerning topics such as transportation, economic development, parks, open space, the environment, climate change, health, and housing would also remain unchanged.

Overall, the No Project Alternative is projected to result in approximately 57,790 residents, 19,643 housing units, and 18,855 jobs in Diamond Bar by 2040. This represents 63 fewer residents, 730 new housing units, and 4,150 new jobs compared to existing conditions and 8,895 fewer residents, 3,023 fewer housing units, and 2,889 fewer jobs than the Proposed Project in 2040.

Buildout calculations of new development under the No Project Alternative assumed maximum allowable residential density/intensity and the midpoint of allowable non-residential density/intensity for each land use designation under the 1995 General Plan. New development is expected to only occur on opportunity sites identified by the Proposed Project (with the exception of the four focus areas), and it was assumed that 75 percent of the opportunity sites would develop

by 2040. Population growth in 2040 under the No Project Alternative assumed a standard vacancy rate of five percent and 3.097 persons per occupied unit. Calculation of existing and future jobs assumed job densities of 400 square feet per retail employee, 350 square feet per office employee, and 500 square feet per industrial employee. The same assumptions were used to calculate buildout of the Proposed Project in 2040.

## ALTERNATIVE 1

Alternative 1, as shown in Figure 4-2, includes a Town Center along Diamond Bar Boulevard between SR-60 and Golden Springs Drive, with the new Sprouts/Ross center on the former Kmart site. The Golf Course would retain its designation. Alternative 1 includes the same land use designations as the proposed General Plan, with the exception of the Community Core Overlay. As discussed in Section 4.1 above, Alternative 1 is the most similar to the Proposed Project, with two key differences. Alternative 1 does not include the Community Core Overlay, which assumes high residential growth. Additionally, the 105-acre transit-oriented mixed-use area near the Metrolink station would be reduced to 33 acres under the Proposed Project.

Overall, Alternative 1 is projected to result in approximately 63,008 residents, 21,395 housing units, and 19,369 jobs in Diamond Bar by 2040. This represents 5,150 new residents, 2,500 new housing units, and 4,700 new jobs compared to existing conditions and 2,823 fewer residents, 1,272 fewer housing units, and 2,375 fewer jobs than the Proposed Project in 2040.

Buildout calculations of new development under Alternative 1 assumed the midpoint of allowable density/intensity for each land use designation. New development is expected to only occur on opportunity sites, and it was assumed that 75 percent of the opportunity sites would develop by 2040. Population growth in 2040 under Alternative 1 assumed a standard vacancy rate of five percent and 3.1 persons per occupied unit (from the 2010 United States Census). Calculation of existing and future jobs assumed job densities of 500 square feet per retail employee, 300 square feet per office employee, and 700 square feet per industrial employee. Buildout projections and assumptions were obtained from the Alternatives Evaluation, completed in January 2018.

## ALTERNATIVE 2

Alternative 2 includes a Town Center in the southern portion of the Golf Course and would designate approximately 118 acres of the northern portion of the Golf Course as new parkland. The replacement of recreational/park space from the Golf Course would likely be required. The Diamond Bar Boulevard and Golden Springs Drive area would retain a General Commercial designation. Alternative 2 includes similar land use designations as the proposed General Plan, with the exception of the Community Core Overlay.

Overall, Alternative 2 is projected to result in approximately 63,277 residents, 21,486 housing units, and 21,141 jobs in Diamond Bar by 2040. This represents 5,450 new residents, 2,600 new housing units, and 6,400 new jobs compared to existing conditions and 3,408 fewer residents, 1,181 fewer housing units, and 603 fewer jobs than the Proposed Project in 2040.

Buildout calculations of new development under Alternative 2 assumed the midpoint of allowable density/intensity for each land use designation. New development is expected to only occur on opportunity sites, and it was assumed that 75 percent of the opportunity sites would develop by 2040. Population growth in 2040 under Alternative 2 assumed a standard vacancy rate of five

percent and 3.1 persons per occupied unit (from the 2010 United States Census). Calculation of existing and future jobs assumed job densities of 500 square feet per retail employee, 300 square feet per office employee, and 700 square feet per industrial employee. Buildout projections and assumptions were obtained from the Alternatives Evaluation, completed in January 2018.

# Areas of Controversy

During the drafting of the Proposed Project and this EIR, public agencies and members of the public were invited to provide feedback on the documents. The following topics were identified as areas of controversy, based on comments at public meetings on the Proposed Project and at the EIR Scoping Meeting, and responses to the Notice of Preparation (NOP):

- **Biological Resources.** Many of the comments addressed impacts to important biological resources, particularly oak woodlands. Inadequacy of the City of Diamond Bar's existing tree ordinance and the Existing Conditions Report led to community concern over the protection of open space and special-status species. Anticipated development under the Proposed Project could reduce existing open space and viable habitat.
- **Tres Hermanos Ranch.** The development of Tres Hermanos Ranch has been a major area of controversy in the City of Diamond Bar and surrounding cities. Many of the comments requested collaboration with adjacent cities to preserve this open space and the Puente-Chino Hills Wildlife Corridor. In February 2019, the cities of Diamond Bar, Chino Hills, and Industry formed and transferred ownership of Tres Hermanos Ranch to the Tres Hermanos Conservation Authority for the purpose of limiting its use to open space, public use, or preservation.
- **Traffic Impacts.** Multiple comments addressed traffic impacts, including congestion, vehicle miles traveled, availability of parking, car trips generated by high-density housing, hazards, and pollution. The Proposed Project incorporates multi-modal and complete streets transportation elements, but could exacerbate existing traffic issues in the City of Diamond Bar through increased population and jobs.
- **Health.** Multiple comments addressed impacts to health, including increased exposure to air and water pollution, noise, and hazards. Anticipated development under the Proposed Project could exacerbate existing pollution problems within the City of Diamond Bar through increased car trips and development.

Additionally, environmental impacts classified as significant and unavoidable have been identified in the resource topics of air quality, cultural resources, and transportation, and inasmuch as they may be controversial to the general public, agencies, or stakeholders, they are described briefly here.

## AIR QUALITY

The South Coast Air Basin has been designated as a nonattainment area for State ozone, PM10, and PM2.5 and as a federal nonattainment area for ozone and PM10. Construction of individual projects anticipated with implementation of the Proposed Project could temporarily emit criteria air pollutants through the use of heavy-duty construction equipment, vehicle trips generated from workers and haul trucks, and demolition and various soil-handling activities. A quantitative analysis found that construction-related daily emissions would exceed the South Coast Air Quality Management District (SCAQMD) significance thresholds for VOCs and $NO_x$. Operation of the Proposed Project would generate criteria air pollutant emissions from Project-generated vehicle trips traveling within the city, energy sources such as natural gas combustion, and area sources such as landscaping equipment and consumer products usage. A quantitative analysis found that operational emissions for the Proposed Project would exceed regulatory thresholds for VOC, NOx, CO, PM10, and PM2.5.

Mitigation is required to ensure that future development projects anticipated by the Proposed Project incorporate measures to reduce emissions from construction activities, and would reduce $NO_x$ and VOC impacts on a project-by-project basis. However, the exact emissions from construction of the Proposed Project cannot be quantified without full detail of the development projects to be implemented and the extent to which mitigation can be applied. Therefore, short-term regional construction emissions would be significant and unavoidable. Future development would be required to comply with State and local regulations, Title 24 energy efficient standards, and Proposed Project policies to reduce operational emissions. However, there is no way to determine the extent to which these regulations will be implemented nor their effectiveness. Therefore, long-term regional operational emissions would also be significant and unavoidable.

Because regional emissions exceed the SCAQMD regulatory thresholds during construction and operational activities, there is the potential that these emissions would exceed the California Ambient Air Quality Standards (CAAQS) and National Ambient Air Quality Standards (NAAQS) thus resulting in a health impact. Impacts may be associated with localized operational emissions or emissions of toxic air contaminants (due to diesel particulate emissions during construction and operation of diesel fueled equipment or generators during operational activities). Because the exact nature, location, and operation of the future developments are unknown, there is no way to accurately calculate the potential for health impacts from the Proposed Project. Mitigation is required to reduce impacts with respect to toxic air contaminants from construction and future development would be required to comply with State, local, and Proposed Project policies and regulations. However, as there is no way to determine the extent to which these regulations would be implemented or their effectiveness, impacts to sensitive receptors would remain significant and unavoidable.

As discussed, operational emissions for the Proposed Project would exceed SCAQMD daily emissions thresholds for CO which could adversely affect a substantial number of people. While future development would be required to comply with State, local, and Proposed Project policies and regulations, there is no way to determine the extent to which these regulations would be implemented or their effectiveness, and no further mitigation is feasible. Therefore, impacts related to long-term operational emissions of CO could have a significant and unavoidable impact on a substantial number of people. As discussed above, air quality impacts would be cumulatively considerable.

## CULTURAL RESOURCES

New construction through infill development on vacant property could result in a substantial adverse change in the significance of a historical resource through alteration of the resource's immediate surroundings. Potential future projects that propose alteration of a historical resource and that do not adhere to Secretary of the Interior's Standards for the Treatment of Historic Properties have the potential to result in a substantial adverse change in the significance of a historical resource. Other potential future projects that propose demolition or alteration of, or construction adjacent to, existing historic resources over 45 years in age (the California Office of Historic Preservation's age threshold for consideration as historical resources), could also result in a substantial adverse change in the significance of a historical resource. Changes in the setting of historic buildings and structures can result from the introduction of new visible features, significant landscape changes, or other alterations that change the historic integrity of the setting of a significant resource. The proposed General Plan policies would help reduce the impact by requiring that new development be compatible with the character, scale, massing, and design of existing development, which is part of the requirements of the Secretary of the Interior's Standards for the Treatment of Historic Properties. However, these policies do not require the identification and evaluation of historic-age properties to determine if there are historical resources within or nearby a proposed project site that could be adversely impacted by a proposed project, nor do they require the retention or rehabilitation of historical resources.

Mitigation is required to ensure that historical resources are properly identified and that impacts on any identified historical resources are reduced. However, impacts on historical resources that are demolished or altered in an adverse manner such that they are no longer able to convey their historical significance and such that they are no longer eligible for inclusion in the California Register typically cannot be mitigated to a level of less than significant. [1, 2] Without information on specific future projects, it is impossible to know if future development will cause substantial adverse impacts on historical resources, and it is reasonable to assume that some historical resources would be demolished or altered in an adverse manner over the lifetime of the General Plan. Therefore, even with mitigation, impacts on historical resources would be significant and unavoidable under the Proposed Project. As discussed above, impacts to historical resources would be cumulatively considerable.

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[1] CEQA Guidelines Section 15126.4(b)(2) states that in some circumstances, documentation of an historical resource, by the way of narrative, photographs or architectural drawings, as mitigation for the effects of demolition of the resource will not mitigate the effects to the point where clearly no significant effect on the environment would occur.

[2] In League of Protection of Oakland's Architectural and Historic Resources v. City of Oakland (1997) the appellate court found that "Documentation of the historical features of the building and exhibition of a plaque do not reasonably begin to alleviate the impacts of its destruction. A large historical structure, once demolished, normally cannot be adequately replaced by reports and commemorative markers. Nor, we think, are the effects of the demolition reduced to a level of insignificance by a proposed new building with unspecified design elements which may incorporate features of the original architecture into an entirely different shopping center. This is so particularly where, as here, the plans for the substitute building remain tentative and vague. We conclude that the stated mitigation measures do not reduce the effects of the demolition to less than a level of significance."

### PUBLIC FACILITIES

The City of Diamond Bar currently fails to meet its parkland standard of 5.0 acres of parkland per 1,000 residents. Construction of additional parkland under the proposed General Plan would only increase this ratio to 2.77 acres per 1,000 residents. The proposed General Plan includes several policies and land use changes aimed at increasing available and accessible parkland and open space. However, total parkland at buildout falls severely short of achieving the parkland ratio of 5.0 acres per 1,000 residents, and no mitigation is feasible that can make up this gap. Calculation of the parkland ratio does not include the 134.9 acres of parkland from the Country Park, which is a private amenity, or the proposed 100 acres of parkland associated with the Community Core Overlay, given that Los Angeles County has not ceased operation of the golf course. Conversion of these two areas would increase the parkland ratio but is not feasible at the time of analysis. A significant amount of land in Diamond Bar would need to be converted to public parkland to reduce the impact to a level that is less than significant. Therefore, the impact remains significant and unavoidable.

### TRANSPORTATION

Vehicle Miles Travelled (VMT) is expected to increase under implementation of the proposed General Plan. Home-based production VMT per resident is expected to increase by five percent over existing conditions and home-based-work attraction VMT per employee is expected to increase by nine percent. Part of the increase is associated with the addition of more employment and retail opportunities within the City that have the potential to import vehicle trips from surrounding communities. Numerous proposed policies would help reduce the impact. However, even with implementation of these policies, the impact could remain significant and unavoidable.

## Impacts Summary and Environmentally Superior Alternative

### IMPACTS SUMMARY

Table ES-4: Summary of Impacts and Mitigation Measures presents the summary of the significant impacts of the Proposed Project identified in the EIR and the Proposed Project mitigation measures that reduce these impacts to less than significant. Detailed discussions of the impacts and proposed policies that would reduce impacts are in Chapter 3.

### IDENTIFICATION OF ENVIRONMENTALLY SUPERIOR ALTERNATIVE

CEQA Guidelines (Section 15126.6) require the identification of an environmentally superior alternative among the alternatives analyzed. Table ES-3: Summary of Impacts for Alternatives summarizes the Alternatives' overall environmental impacts for each topic presented in Section 4.3.Like the Proposed Project, implementation of either Alternative 1 or Alternative 2 would result in six (6) significant and unavoidable impacts, seven (7) less-than-significant impacts with mitigation, 45 less-than-significant impacts, and four (4) impacts of no significance. Implementation of the No Project Alternative would result in 17 significant and unavoidable impacts, 39 less-than-significant impacts, and six (6) impacts of no significance.

While Alternative 1, Alternative 2, and the Proposed Project were found to have the same number of potentially significant and unavoidable impacts, the redevelopment of the Golf Course under Alternative 2 would inherently result in more severe impacts than Alternative 1 or the Proposed Project. Without further project-level study and mitigation, construction of a new Town Center in the southern portion of the Golf Course may result in adverse effects on biological resources, cultural and paleontological resources, soils, and service systems. Alternative 1 and the Proposed Project propose a similar land use pattern and would not automatically result in the redevelopment of the Golf Course, and would therefore be considered environmentally superior.

Reduced development and population growth under Alternative 1 may slightly reduce impacts of the Proposed Project; however, implementation of Alternative 1 would not be sufficient to reduce significant and unavoidable impacts on air quality, historic resources, and VMT to a level that is less than significant. Additionally, differences in population, housing, and jobs growth can be partially attributed to differences in buildout methodology between the Alternatives and the Proposed Project. Most significantly, Alternative 1 would not include the Community Core overlay, which would require a master plan to ensure comprehensive implementation of reuse of the Golf Course should the County of Los Angeles choose to discontinue its operation. Implementation of the Community Core overlay would address the pervasive issue in the City of Diamond Bar, and Los Angeles County as a whole, of equitable access to parkland as it would require that approximately 100 contiguous acres of the Golf Course be developed as public parkland. The southern portion of the Golf Course site would be developed as a mix of uses, including high-density housing, and would be relatively accessible by the Metrolink station. Given that the Proposed Project was originally based on Alternative 1, is generally found to be more compatible with the surrounding environment, and provides additional benefits through the Community Core designation, the Proposed Project is considered environmentally superior.

**Table ES-3: Summary of Impacts for Alternatives**

| | *Level of Significance* | | | |
|---|---|---|---|---|
| *Impact* | *Proposed Project* | *No Project Alternative* | *Alternative 1* | *Alternative 2* |
| **Aesthetics** | | | | |
| Scenic Vistas | LTS | LTS | LTS | LTS |
| State Scenic Highway | NI | NI | NI | NI |
| Visual Character | LTS | LTS | LTS | LTS |
| Light and Glare | LTS | LTS | LTS | LTS |
| **Air Quality** | | | | |
| Air Quality Plan | LTS | LTS | LTS | LTS |
| Air Quality Standard | SU | SU | SU | SU |
| Sensitive Receptors | SU | SU | SU | SU |
| Emissions or Odors | SU | SU | SU | SU |
| **Biological Resources** | | | | |
| Special-Status Species | LTSM | SU | LTSM | LTSM |
| Sensitive Habitat | LTSM | SU | LTSM | LTSM |
| Wetlands | LTSM | SU | LTSM | LTSM |
| Wildlife Corridors | LTSM | SU | LTSM | LTSM |
| Policies and Ordinances | NI | NI | NI | NI |
| HCPs | LTSM | SU | LTSM | LTSM |
| **Cultural, Historic, and Tribal Cultural Resources** | | | | |
| Historical Resources | SU | SU | SU | SU |
| Archaeological Resources | LTSM | SU | LTSM | LTSM |
| Human Remains | LTS | LTS | LTS | LTS |
| Tribal Cultural Resources | LTS | SU | LTS | LTS |
| **Energy, Climate Change, and GHG Emissions** | | | | |
| Greenhouse Gas Emissions | LTS | LTS | LTS | LTS |
| Plan, Policy, or Regulation | LTS | SU | LTS | LTS |
| Wasteful Energy Consumption | LTS | LTS | LTS | LTS |
| Renewable Energy Plan | LTS | SU | LTS | LTS |
| **Geology, Soils, Seismicity, and Paleontology** | | | | |
| Seismic Hazards | LTS | LTS | LTS | LTS |
| Soil Erosion | LTS | LTS | LTS | LTS |
| Unstable Soils | LTS | LTS | LTS | LTS |
| Expansive Soils | LTS | LTS | LTS | LTS |
| Septic Systems | LTS | LTS | LTS | LTS |
| Paleontological Resources | LTSM | SU | LTSM | LTSM |

**Table ES-3: Summary of Impacts for Alternatives**

| | *Level of Significance* | | | |
|---|---|---|---|---|
| *Impact* | *Proposed Project* | *No Project Alternative* | *Alternative 1* | *Alternative 2* |
| **Hazards, Hazardous Materials, and Wildfire** | | | | |
| Transport, Use, or Disposal | LTS | LTS | LTS | LTS |
| Accidental Upset | LTS | LTS | LTS | LTS |
| Quarter-Mile of Schools | LTS | LTS | LTS | LTS |
| Cortese List | LTS | LTS | LTS | LTS |
| Airport Hazards | NI | NI | NI | NI |
| Emergency Response | LTS | LTS | LTS | LTS |
| Wildland Fires | LTS | LTS | LTS | LTS |
| Wildfire Emergency Response | LTS | LTS | LTS | LTS |
| Wildfire Pollutants | LTS | LTS | LTS | LTS |
| Wildfire Infrastructure | LTS | LTS | LTS | LTS |
| Wildfire Hazards | LTS | LTS | LTS | LTS |
| **Hydrology and Water Quality** | | | | |
| Water Quality Standards | LTS | LTS | LTS | LTS |
| Groundwater | LTS | LTS | LTS | LTS |
| Drainage | LTS | LTS | LTS | LTS |
| Pollutants | LTS | LTS | LTS | LTS |
| Water Quality Control Plan | LTS | LTS | LTS | LTS |
| **Land Use and Housing** | | | | |
| Division of a Community | LTS | NI | LTS | LTS |
| Conflict with Land Use Plan | LTS | NI | LTS | LTS |
| Displacement | LTS | LTS | LTS | LTS |
| **Noise** | | | | |
| Ambient Noise Increase | LTS | LTS | LTS | LTS |
| Groundborne Vibration or Noise | LTS | LTS | LTS | LTS |
| Airport Noise | NI | NI | NI | NI |
| **Public Facilities and Recreation** | | | | |
| Public Facilities | LTS | LTS | LTS | LTS |
| Deterioration of Parks and Recreational Facilities | SU | SU | SU | SU |
| Construction of Recreational Facilities | LTS | LTS | LTS | LTS |
| **Transportation** | | | | |
| Circulation Plan | LTS | LTS | LTS | LTS |
| Vehicle Miles Traveled | SU | SU | SU | SU |
| Emergency Access | LTS | LTS | LTS | LTS |
| Traffic Hazards | LTS | LTS | LTS | LTS |

**Table ES-3: Summary of Impacts for Alternatives**

| | *Level of Significance* | | | |
|---|---|---|---|---|
| *Impact* | *Proposed Project* | *No Project Alternative* | *Alternative 1* | *Alternative 2* |
| **Utilities and Service Systems** | | | | |
| Water or Wastewater Facilities | LTS | SU | LTS | LTS |
| Water Supply | LTS | LTS | LTS | LTS |
| Wastewater Capacity | LTS | LTS | LTS | LTS |
| Solid Waste Reduction Goals | LTS | LTS | LTS | LTS |
| Solid Waste Regulations | LTS | LTS | LTS | LTS |

Notes:

LTS = Less than Significant

LTSM = Less than Significant with Mitigation

NI = No Impact

SU = Significant and Unavoidable

*Source: Dyett & Bhatia, 2019.*

**Table ES-4: Summary of Impacts and Mitigation Measures**

| *Impact* | *Mitigation Measures* | *Significance before Mitigation* | *Significance after Mitigation* |
|---|---|---|---|
| **3.1 Aesthetics** | | | |
| 3.1-1 Implementation of the Proposed Project would not have a substantial adverse effect on scenic vistas. | None required | Less than significant | N/A |
| 3.1-2 Implementation of the Proposed Project would not substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway. | None required | No Impact | N/A |
| 3.1-3 Implementation of the Proposed Project would not, in a non-urbanized area, substantially degrade the existing visual character or quality of public views of the site and its surroundings, or in an urbanized area, conflict with applicable zoning and other regulations governing scenic quality. | None required | Less than significant | N/A |
| 3.1-4 Implementation of the Proposed Project would not create a new source of substantial light or glare that would adversely affect day or nighttime views in the area. | None required | Less than significant | N/A |
| **3.2 Air Quality** | | | |
| 3.2-1 Implementation of the Proposed Project would not conflict with or obstruct implementation of the applicable air quality plan. | None required | Less than significant | N/A |

**Table ES-4: Summary of Impacts and Mitigation Measures**

| *Impact* | *Mitigation Measures* | *Significance before Mitigation* | *Significance after Mitigation* |
|---|---|---|---|
| 3.2-2 Implementation of the Proposed Project would result in a cumulatively considerable net increase of criteria pollutants for which the project region is non-attainment under an applicable federal or state ambient air quality standard. | **AQ-1: Construction Features.** Future development projects implemented under the General Plan will be required to demonstrate consistency with SCAQMD construction emission thresholds. Where emissions from individual projects exceed SCAQMD thresholds the following measures shall be incorporated, as necessary, to minimize impacts. These measures do not exclude the use of other, equally effective mitigation measures.<br>• Require all off-road diesel equipment greater than 50 horsepower (hp) used for this Project to meet USEPA Tier 4 final off-road emission standards or equivalent. Such equipment shall be outfitted with Best Available Control Technology (BACT) devices including a California Air Resources Board certified Level 3 Diesel Particulate Filter or equivalent. This PDF will reduce diesel particulate matter and NOX emissions during construction activities.<br>• Require a minimum of 50 percent of construction debris be diverted for recycling.<br>• Require building materials would contain a minimum 10 percent recycled content. | Significant and unavoidable | Significant and unavoidable |

**Table ES-4: Summary of Impacts and Mitigation Measures**

| *Impact* | *Mitigation Measures* | *Significance before Mitigation* | *Significance after Mitigation* |
|---|---|---|---|
| | • Require materials such as paints, primers, sealants, coatings, and glues to have a low volatile organic compound concentration compared to conventional products. If low VOC materials are not available, architectural coating phasing should be extended sufficiently to reduce the daily emissions of VOCs. | | |
| 3.2-3 Implementation of the Proposed Project would expose sensitive receptors to substantial pollutant concentrations. | See Mitigation Measure MM-AQ-1 under Impact 3.2-2. | Significant and unavoidable | Significant and unavoidable |
| 3.2-4 Implementation of the Proposed Project would result in other emissions (such as those leading to odors adversely affecting a substantial number of people). | None required | Significant and unavoidable | Significant and unavoidable |

| **Table ES-4: Summary of Impacts and Mitigation Measures** | | | |
|---|---|---|---|
| *Impact* | *Mitigation Measures* | *Significance before Mitigation* | *Significance after Mitigation* |
| **3.3 Biological Resources** | | | |
| 3.3-1 Implementation of the Proposed Project would have an adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service. | **BIO-1A: Preconstruction Surveys for Special-Status Plants.** To mitigate impacts on special-status plant species, the applicant shall implement the following measures:<br>• Prior to initiating disturbance activities, clearance surveys for special-status plant species shall be performed by a qualified biologist(s) within the boundaries of the future project disturbances. If any special-status plants are found on the Planning Area, a qualified biologist(s) with a CDFG Scientific Collection Permit shall prepare a plan to relocate these species to suitable habitats within surrounding public open space areas that would remain undisturbed. For those species that cannot be physically transplanted, the biologist(s) shall collect seeds from the plants<br>• To the extent feasible the preconstruction surveys shall be completed when species are in bloom, typically between May and June. Two species, the white rabbit-tobacco and San Bernardino aster, are perennial herbs that grow up to three feet in height and can be identified by their | Significant and unavoidable | Less than significant with mitigation |

**Table ES-4: Summary of Impacts and Mitigation Measures**

| *Impact* | *Mitigation Measures* | *Significance before Mitigation* | *Significance after Mitigation* |
|---|---|---|---|
| | dried stalks and leaves following their blooming period.<br><br>**BIO-1B: Special-Status Plant Planting Plan.** Prior to any ground disturbance for projects that have the potential to cause direct or indirect impacts on special-status plants, the project applicants shall prepare a Special Status Plant Planting Plan for the species to be transplanted. At a minimum, the plan shall include a description of the existing conditions of the project and receiver site(s), transplanting and/or seed collection/off-site seeding or installation methods, a two-year monitoring program, any other necessary monitoring procedures, plant spacing, and maintenance requirements. The City shall also require proof that the plan preparer consulted with US Fish and Wildlife Service personnel or appropriate herbarium botanists in order to maximize transplanting success.<br><br>**BIO-1C: Listed Endangered and Threatened Plants.** In addition to MM BIO-1A and -1B, the City shall require the project applicant to provide proof of the US Fish and Wildlife Service permitting the take of listed endangered and threatened plants. The FESA does not address listed plants on private property. However, if a federal action is | | |

| **Table ES-4: Summary of Impacts and Mitigation Measures** | | | |
|---|---|---|---|
| *Impact* | *Mitigation Measures* | *Significance before Mitigation* | *Significance after Mitigation* |
| | required for a project (funding, Clean Water Act compliance, etc.), a permit from the USFWS to take a listed species is required.<br><br>**BIO-1D: Environmental Awareness Program.** In order to reduce indirect impacts on special-status plants, sensitive natural communities, preserved open space and wildlife corridors, the City shall implement the following measures:<br><br>• The City shall implement an Environmental Awareness Program on its web site intended to increase awareness to residents and city workers of the sensitive plants, wildlife and associated habitats that occur in the preserved open space areas. The intention of the program shall be to encourage active conservation efforts among the residents and city to help conserve the habitats in the preserved open space. The program shall address impacts associated with the introduction of invasive plant species as a result of new development. At a minimum, the Environmental Awareness Program shall include the following components:<br>  ○ Informational kiosks shall be added or modified at entrance points to hiking | | |

**Table ES-4: Summary of Impacts and Mitigation Measures**

| *Impact* | *Mitigation Measures* | *Significance before Mitigation* | *Significance after Mitigation* |
|---|---|---|---|
| | and equestrian trails to inform city workers, residents and trail users on the sensitive flora and fauna that rely on the habitats found within the preserved open space. The intent of these kiosks is to bring awareness to the sensitive plants, wildlife and associated habitats which occur in the area.<br>○ For informational purposes, the City shall provide future project applicants a brochure which includes a list of plant species to avoid in residential landscaping near natural areas to prevent the introduction of invasive plant species to the surrounding natural communities.<br><br>**BIO-1E: Preconstruction Surveys for Special-Status Wildlife.** Within one (1) week prior to initiating disturbance activities, clearance surveys for special-status animal species shall be performed by a qualified biologist(s) within the boundaries of the future project disturbances. If any special-status animals are found on the site, a qualified biologist(s) with a CDFG Scientific Collection Permit shall relocate these species to suitable habitats within surrounding open space areas that would remain undisturbed, unless the biologist determines that such | | |

**Table ES-4: Summary of Impacts and Mitigation Measures**

| *Impact* | *Mitigation Measures* | *Significance before Mitigation* | *Significance after Mitigation* |
|---|---|---|---|
| | relocation cannot reasonably be accomplished at which point CDFG will be consulted regarding whether relocation efforts should be terminated. Relocation methods (e.g., trap and release) and receiver sites shall be verified and approved by the CDFG prior to relocating any animals.<br><br>**BIO-1F: Listed Endangered or Threatened Wildlife.** Prior to approval of individual projects that have the potential to cause direct or indirect impacts on suitable habitat for federally or state listed endangered or threatened species, the City shall require a habitat evaluation to be completed by a qualified biologist well versed in the requirements of the associated species to be completed. If no suitable habitat for listed species is identified within 300 feet of construction or maintenance activities, no further measures would be required in association with the project. If suitable habitat for the species is identified within 300 feet of such activities, prior to construction, the City shall require that a survey be completed by a qualified biologist for the species in accordance with protocols established by the US Fish and Wildlife Service. Table 3.3-5 provides a listing of endangered and threatened species by | | |

**Table ES-4: Summary of Impacts and Mitigation Measures**

| *Impact* | *Mitigation Measures* | *Significance before Mitigation* | *Significance after Mitigation* |
|---|---|---|---|
| | habitat type and potential for occurrence.<br>In the event a state or federal listed species is determined to occupy the proposed Planning Area or its immediate surroundings, the CDFW and/or USFWS shall be consulted, as required by CESA and/or FESA. In order to address and acknowledge the potential for listed species to occur within the Planning Area or be impacted by future development projects, this assessment acknowledges future actions by state and federal resource agencies in addition to the analyses necessary and required under CEQA. Compensation is likely to include one or more of the following on- or off-site measures: dedication/preservation of suitable habitat for the species; habitat enhancement/creation; and provisions for long-term habitat management.<br><br>**BIO-1G: Nesting Bird Surveys.** All vegetation clearing for construction and fuel modification shall occur outside of the breeding bird season, if feasible, to ensure that no active nests would be disturbed unless clearing and/or grading activities cannot be avoided during that time period.<br>If clearing and/or grading activities cannot be avoided during the breeding season, all suitable habitats shall be thoroughly surveyed for the | | |

**Table ES-4: Summary of Impacts and Mitigation Measures**

| *Impact* | *Mitigation Measures* | *Significance before Mitigation* | *Significance after Mitigation* |
|---|---|---|---|
| | presence of nesting birds by a qualified biologist prior to removal. Suitable nesting habitat on the Planning Area includes grassland, scrub, chaparral, and woodland communities. If any active nests are detected, the area shall be flagged, along with a 300-foot buffer for song birds and a 500-foot buffer for raptorial birds (or as otherwise appropriate buffer as determined by the surveying biologist), and shall be avoided until the nesting cycle is complete or it is determined by the surveying biologist that the nest is no longer active.<br><br>**BIO-1H: Protection of Eagle Nests.** No development or project activities shall be permitted within one-half mile of a historically active or active golden eagle nest unless the planned activities are sited in such a way that the activity has minimal potential to cause abandonment of the nesting site, as determined by a qualified biologist. In addition, the eagle nest (if active) shall be monitored by a biologist who is highly familiar with the signs of eagle distress during the project development activities. The monitoring shall continue until the monitoring biologist is confident the nest will not be disturbed. The monitoring biologist | | |

**Table ES-4: Summary of Impacts and Mitigation Measures**

| *Impact* | *Mitigation Measures* | *Significance before Mitigation* | *Significance after Mitigation* |
|---|---|---|---|
| | shall have the authority to stop project activities as needed.<br><br>**BIO-1I: Use of Buffers Near Active Bat Roosts.** During the November 1 to March 31 hibernation season, construction activities shall not be conducted within 100 feet of woodland habitat that provides suitable bat roosting habitat. Bat presence is difficult to detect using emergence surveys during this period due to decreased flight and foraging behavior. If a qualified biologist who is highly familiar with bat biology determines that woodland areas do not provide suitable hibernating conditions for bats and they are unlikely to be present in the area, work may commence as planned.<br><br>**BIO-1J: Bat Maternity Roosting Season.** Night-time evening emergence surveys and/or internal searches within large tree cavities shall be conducted by a qualified biologist who is highly familiar with bat biology during the maternity season (April 1 to August 31) to determine presence/absence of bat maternity roosts near wooded project boundaries. All active roosts identified during surveys shall be protected by a buffer to be determined by a qualified bat biologist. The buffer will be determined by the type of bat observed, | | |

**Table ES-4: Summary of Impacts and Mitigation Measures**

| *Impact* | *Mitigation Measures* | *Significance before Mitigation* | *Significance after Mitigation* |
|---|---|---|---|
| | topography, slope, aspect, surrounding vegetation, sensitivity of roost, type of potential disturbance, etc. Each exclusion zone would remain in place until the end of the maternity roosting season. If no active roosts are identified, then work may commence as planned. Survey results are valid for 30 days from the survey date. Should work commence later than 30 days from the survey date, surveys should be repeated.<br><br>**BIO-1K: Bat Roost Replacement.** All special-status bat roosts that are destroyed by the project must be documented and shall be replaced at a 1:1 ratio on- or off-site with a roost suitable for the displaced species (e.g., bat houses for colonial roosters). The design of such replacement habitat shall be coordinated with CDFG. The new roost shall be in place prior to the time that the bats are expected to use the roost as determined by a qualified biologist who is highly familiar with bat biology, and shall be monitored periodically for five (5) years to ensure proper roosting habitat characteristics (e.g., suitable temperature and no leaks). The roost shall be modified as necessary to provide a suitable roosting environment for the target bat species. | | |

**Table ES-4: Summary of Impacts and Mitigation Measures**

| *Impact* | *Mitigation Measures* | *Significance before Mitigation* | *Significance after Mitigation* |
|---|---|---|---|
| 3.3-2 Implementation of the Proposed Project would have an adverse effect on a riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or US Fish and Wildlife Service. | **BIO-2: Sensitive Natural Communities.** To mitigate impacts on sensitive shrubland and scrub natural communities, project applicants shall implement the following mitigation measures prior to any ground disturbance:<br>• If avoidance cannot be reasonably accomplished, impacts on any shrubland, scrub or woodland alliance indicated as sensitive in Table 3.3-2 shall be mitigated through on- or off-site restoration/enhancement. For off-site restoration/enhancement, the applicant shall acquire mitigation land of similar habitat at a ratio of at least 1:1. On-site restoration/enhancement shall also be completed at a ratio of at least 1:1.<br>• For projects that have the potential to result in direct or indirect impacts on sensitive natural communities, a habitat restoration plan shall be prepared prior to any ground disturbance. The Plan shall include adaptive management practices as specified by the Department of the Interior to achieve the specified ratio for restoration/enhancement. At a minimum, the Plan shall include a description of the existing conditions of the receiver site(s), goals and timeline, installation methods, | Significant and unavoidable | Less than significant with mitigation |

**Table ES-4: Summary of Impacts and Mitigation Measures**

| *Impact* | *Mitigation Measures* | *Significance before Mitigation* | *Significance after Mitigation* |
|---|---|---|---|
| | monitoring procedures, plant spacing, adaptive management strategies, and maintenance requirements to ensure the sensitive communities referred to above re-established successfully at the ratios set forth above.<br><br>**BIO-3: Jurisdictional Waters.** To mitigate for impacts on jurisdictional waters, the applicant shall adopt the following measures in consultation with the regulating agencies (USACOE, CDFW, and RWQCB, where applicable):<br><br>• The applicant shall provide on- and off-site replacement and/or restoration/enhancement of USACE, RWQCB and CDFG jurisdictional waters and wetlands at a ratio no less than 1.5:1 and/or include the purchase of mitigation credits at an agency-approved off-site mitigation bank.<br><br>• If replacement and/or restoration/enhancement would occur, a restoration plan shall be prepared that describes the location of restoration and provides for replanting and monitoring for a three-year period following construction. | | |

**Table ES-4: Summary of Impacts and Mitigation Measures**

| *Impact* | *Mitigation Measures* | *Significance before Mitigation* | *Significance after Mitigation* |
|---|---|---|---|
| | **BIO-4: Oak Woodlands.** In the event a future project would result in the loss of an oak woodland, the project shall be subject to the mitigation requirements set forth in the Los Angeles County Oak Woodland Conservation Management Plan Guide. If a future project cannot be redesigned to avoid impacts on oak woodland, then one of the following measures shall be implemented:<br>• Acquire oak woodland habitat that is comparable to the habitat that was impacted at a ratio of 1:1.<br>• Restore degraded oak woodlands:<br>  ○ Off-site restoration should be prioritized over on-site restoration and where feasible, should be located nearby the impacted property, preferably within the same watershed or sub-drainage as deemed appropriate by a qualified biologist, or within the same planning area as the impacted property. Off-site restoration may include any of the following: acquiring off-site fee title for oak woodland habitat; replacement planting; and/or restoring moderately or severely degraded oak woodlands | | |

| **Table ES-4: Summary of Impacts and Mitigation Measures** | | | |
|---|---|---|---|
| *Impact* | *Mitigation Measures* | *Significance before Mitigation* | *Significance after Mitigation* |
| | (more specifically, removing exotics and restoring appropriate native plant diversity).<br>○ On-site restoration of a ratio of at least 1:1 should be utilized when circumstances at the site allow for long-term sustainability of the replacement plantings, the potential to expand/connect to adjacent oak woodlands, and/or the improvement of degraded oak woodlands. If possible, on-site restoration areas should be located adjacent to preserved natural space. The project applicant shall replace/restore lost canopy area. More specifically, the project applicant shall provide mitigation trees of the same Oak species. All replacement trees should be planted on native undisturbed soil and should be the same species of oak (Quercus sp.) as the removed tree with appropriate associated native vegetation in the understory. The location of the replacement tree should be in the vicinity of other oak trees of the same species. If replacement trees cannot be planted on native undisturbed soil or are not | | |

**Table ES-4: Summary of Impacts and Mitigation Measures**

| *Impact* | *Mitigation Measures* | *Significance before Mitigation* | *Significance after Mitigation* |
|---|---|---|---|
| | in the vicinity of the same species of oak (Quercus sp.) as the removed tree, the city may require implementation of additional measures as listed in MM-BIO-4 to ensure that trees thrive.<br><br>Mitigation areas or land should be at a minimum of two (2) to one (1) canopy cover area for the amount removed. This is the expected canopy extent of mature trees. All mitigation areas or land should be placed in a conservation easement within six months of a project's completion. If a conservation easement is not possible, the land shall be protected in perpetuity by other means deemed acceptable by the City. Mitigation land may be designated public open space by the City if deemed appropriate per the description of Open Space found in Chapter 2: Land Use of the proposed General Plan.<br>Project mitigation shall be monitored and reported on over a seven-year period and shall incorporate an iterative process of annual monitoring and evaluation of progress and allow for adjustments to the program, as necessary, to achieve desired outcomes and meet success criteria. Annual reports discussing the implementation, monitoring, and management of the mitigation project shall be | | |

**Table ES-4: Summary of Impacts and Mitigation Measures**

| *Impact* | *Mitigation Measures* | *Significance before Mitigation* | *Significance after Mitigation* |
|---|---|---|---|
| | submitted to the City and should contain the following components: description of the project impact and mitigation site; specific objectives/success criteria, evaluated based on approved survival rates and percent cover of planted native species; control of invasive plant and animal species within the mitigation site; monitoring and maintenance activities conducted since the previous report; and any contingency measures implemented since the previous report. Success criteria should be based on a reference site supporting the desired oak species and understory that the mitigation site is designed to achieve.<br>Once the mitigation project has been completed, the applicant shall submit a final report to the City. The report shall discuss the implementation, monitoring and management of the mitigation project over the seven-year period, and indicates whether the mitigation project has, in part, or in whole, been successful based on established success criteria. The project shall be extended if success criteria have not been met at the end of the seven-year period to the satisfaction of the City.<br>**BIO-5: Walnut Woodlands.** In the event a future project would result in the loss of a walnut | | |

**Table ES-4: Summary of Impacts and Mitigation Measures**

| *Impact* | *Mitigation Measures* | *Significance before Mitigation* | *Significance after Mitigation* |
|---|---|---|---|
| | woodland, then one of the following measures shall be implemented:<br>• Acquire walnut woodland habitat that is comparable to the habitat that was impacted at a ratio of 1:1.<br>• Restore degraded walnut woodlands:<br>  ○ Off-site restoration should be prioritized over on-site restoration and where feasible, should be located nearby the impacted property, preferably within the same watershed or sub-drainage as deemed appropriate by a qualified biologist, or within the same planning area as the impacted property. Off-site restoration may include any of the following: acquiring off-site fee title for walnut woodland habitat; replacement planting; and/or restoring moderately or severely degraded walnut woodlands (more specifically, removing exotics and restoring appropriate native plant diversity).<br>  ○ On-site restoration of a ratio of at least 1:1 should be utilized when circumstances at the site allow for long-term sustainability of the | | |

**Table ES-4: Summary of Impacts and Mitigation Measures**

| *Impact* | *Mitigation Measures* | *Significance before Mitigation* | *Significance after Mitigation* |
|---|---|---|---|
| | replacement plantings, the potential to expand/connect to adjacent walnut woodlands, and/or the improvement of degraded walnut woodlands. If possible, on-site restoration areas should be located adjacent to preserved natural space. The project applicant shall replace/restore lost canopy area. More specifically, the project applicant shall provide mitigation trees of the same species comprising the walnut woodland, including the constituent or co-dominant oak species. All replacement trees should be planted on native undisturbed soil and should be the same species of walnut (Juglans sp.) and Oak (Quercus sp.) as the removed tree with appropriate associated native vegetation in the understory. The location of the replacement tree should be in the vicinity of other walnut trees of the same species. If replacement trees cannot be planted on native undisturbed soil or are not in the vicinity of the same species as the removed tree, the city may require implementation of additional measures | | |

**Table ES-4: Summary of Impacts and Mitigation Measures**

| *Impact* | *Mitigation Measures* | *Significance before Mitigation* | *Significance after Mitigation* |
|---|---|---|---|
| | as listed in MM-BIO-5 to ensure that trees thrive.<br><br>Mitigation areas or land should be at a minimum of two (2) to one (1) canopy cover area for the amount removed. This is the expected canopy extent of mature trees. All mitigation areas or land should be placed in a conservation easement within six months of a project's completion. If a conservation easement is not possible, the land shall be protected in perpetuity by other means deemed acceptable by the City. Mitigation land may be designated public open space by the City if deemed appropriate per the description of Open Space found in Chapter 2: Land Use of the proposed General Plan.<br><br>Project mitigation shall be monitored and reported on over a seven-year period and shall incorporate an iterative process of annual monitoring and evaluation of progress and allow for adjustments to the program, as necessary, to achieve desired outcomes and meet success criteria. Annual reports discussing the implementation, monitoring, and management of the mitigation project shall be submitted to the City and should contain the following components: description of the project impact and mitigation site; specific objectives/success | | |

**Table ES-4: Summary of Impacts and Mitigation Measures**

| *Impact* | *Mitigation Measures* | *Significance before Mitigation* | *Significance after Mitigation* |
|---|---|---|---|
| | criteria, evaluated based on approved survival rates and percent cover of planted native species; control of invasive plant and animal species within the mitigation site; monitoring and maintenance activities conducted since the previous report; and any contingency measures implemented since the previous report. Success criteria should be based on a reference site supporting the desired walnut woodland species and understory that the mitigation site is designed to achieve.<br><br>Once the mitigation project has been completed, the applicant shall submit a final report to the City. The report shall discuss the implementation, monitoring and management of the mitigation project over the seven-year period, and indicates whether the mitigation project has, in part, or in whole, been successful based on established success criteria. The project shall be extended if success criteria have not been met at the end of the seven-year period to the satisfaction of the City. | | |
| 3.3-3 Implementation of the Proposed Project would have an adverse effect on State or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) | See Mitigation Measures BIO-2 and BIO-3 under Impact 3.3-2. | Significant and unavoidable | Less than significant with mitigation |

**Table ES-4: Summary of Impacts and Mitigation Measures**

| *Impact* | *Mitigation Measures* | *Significance before Mitigation* | *Significance after Mitigation* |
|---|---|---|---|
| through direct removal, filling, hydrological interruption, or other means. | | | |
| 3.3-4 Implementation of the Proposed Project would interfere with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites. | **BIO-6: Wildlife Movement Corridor.** In order to ensure the existing integrity of the Tonner Canyon movement corridor, the following land use design criteria shall be adhered to when reviewing future projects:<br>• Corridor Features<br>○ The corridor should be as wide as possible. The corridor width may vary with habitat type or target species, but a rule of thumb is about a minimum of 1,000 feet wide (but larger if possible).<br>○ Maintain as much natural open space as possible next to any culverts and road undercrossings to encourage the use of these by wildlife.<br>○ Maximize land uses adjacent to the corridor that reduce human impacts on the corridor.<br>○ Avoid development or other impacts to project into the corridor to form impediments to movement and increase harmful edge effects.<br>○ If development is to be permitted next to the corridor, put conservation | Significant and unavoidable | Less than significant with mitigation |

**Table ES-4: Summary of Impacts and Mitigation Measures**

| *Impact* | *Mitigation Measures* | *Significance before Mitigation* | *Significance after Mitigation* |
|---|---|---|---|
| | easements on adjacent lots to prohibit structures nearest the corridor.<br>○ Develop strict lighting restrictions for development adjacent to the corridor to prevent light trespass into the corridor. Lights must be directed downward and inward toward the development.<br>• Culvert Design<br>○ Bridged undercrossings are preferable.<br>○ If a bridge is not possible, use a 12-foot by 12-foot box culvert or bigger for larger animals.<br>○ Install a small, one-foot diameter tube parallel to the large box culvert for small animals. The upstream end of the small tube should be a few inches higher than the bottom of the upstream end of the box culvert, so that it will stay dry and free of debris.<br>○ The culvert bottoms should be as close as possible to any canyon bottom and not be perched up a fill slope. | | |

**Table ES-4: Summary of Impacts and Mitigation Measures**

| *Impact* | *Mitigation Measures* | *Significance before Mitigation* | *Significance after Mitigation* |
|---|---|---|---|
| | ○ Use natural substrate on the bottom of the culvert, such as dirt with pebbles.<br>○ On roads above the undercrossings and culverts, install speed bumps and wildlife crossing signs to slow the cars, and avoid street lighting to facilitate use of the crossing.<br>○ Plant and maintain vegetative cover (shrubs and low cover) near the entrance-exits of the culverts, without visually or physically blocking the entries.<br>○ Install appropriate fencing (at least six feet in height) to funnel animals towards the undercrossings and culverts.<br>• Vegetation Restoration<br>○ Require maintenance or restoration of native vegetation, and long-term management.<br>○ Develop an adequate endowment program for restoration and management of the corridor. | | |

**Table ES-4: Summary of Impacts and Mitigation Measures**

| *Impact* | *Mitigation Measures* | *Significance before Mitigation* | *Significance after Mitigation* |
|---|---|---|---|
| | ○ Plant native trees, shrubs, and other plants to provide food and cover, as well as nesting opportunities for birds.<br>• Management and Enforcement<br>○ If housing is to be permitted adjacent to the corridor, require the Home Owner's Association or each homeowner to maintain -- on their own property -- a mowed, 30-foot to 60-foot buffer along a flat or slightly sloped grade between the native vegetation in the corridor and each adjacent lot, for fire abatement.<br>○ Avoid fencing in the corridor that would bottleneck the corridor.<br>○ Unleashed domestic pets should not be allowed in the corridor.<br>○ Educate each landowner adjacent to the corridor about the regulations (lighting, mowing the buffer, no trespass, do not place pet food outside, etc.) and develop a pamphlet and convene a community meeting. In appropriate locations, install educational signs about the corridor | | |

| **Table ES-4: Summary of Impacts and Mitigation Measures** | | | |
|---|---|---|---|
| *Impact* | *Mitigation Measures* | *Significance before Mitigation* | *Significance after Mitigation* |
| | and the species that could potentially use the corridor. | | |
| 3.3-5 Implementation of the Proposed Project would potentially conflict with local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance. | None required | No impact | N/A |
| 3.3-6 Implementation of the Proposed Project would conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or State habitat conservation plan. | See Mitigation Measure BIO-6 under Impact 3.3-4. | Significant and unavoidable | Less than significant |
| **3.4 Cultural, Historic, and Tribal Cultural Resources** | | | |
| 3.4-1 Implementation of the Proposed Project would cause a substantial adverse change in the significance of a historical resource pursuant to § 15064.5. | **CULT-1:** Prior to development of any project on a parcel containing at least one structure more than 45 years old and until such time a Citywide historic resource survey is completed, the project proponent shall retain a qualified architectural historian, defined as meeting the Secretary of the Interior's Professional Qualification Standards for architectural history, to conduct a preliminary assessment. If the property appears to be potentially eligible for a local, state and/or federal listing, a full historic resources assessment shall be required. A full historic resources assessment shall include: a records search at | Significant and unavoidable | Significant and unavoidable |

**Table ES-4: Summary of Impacts and Mitigation Measures**

| *Impact* | *Mitigation Measures* | *Significance before Mitigation* | *Significance after Mitigation* |
|---|---|---|---|
| | the South Central Coastal Information Center; a review of pertinent archives, databases, and sources; a pedestrian field survey; recordation of all identified historic resources on California Department of Parks and Recreation 523 forms; and preparation of a technical report documenting the methods and results of the assessment. All identified historic resources will be assessed for the project's potential to result in direct and/or indirect effects on those resources and any historic resource that may be affected shall be evaluated for its potential significance under national and state criteria prior to the City's approval of project plans and publication of subsequent CEQA documents. The qualified architectural historian shall provide recommendations regarding additional work, treatment, or mitigation for affected historical resources to be implemented prior to their demolition or alteration. Impacts on historical resources shall be analyzed using CEQA thresholds to determine if a project would result in a substantial adverse change in the significance of a historical resource. If a potentially significant impact would occur, the City shall require appropriate mitigation to lessen the impact to the degree feasible. This mitigation measure shall not apply to minor projects that would otherwise qualify for an | | |

**Table ES-4: Summary of Impacts and Mitigation Measures**

| *Impact* | *Mitigation Measures* | *Significance before Mitigation* | *Significance after Mitigation* |
|---|---|---|---|
| | exemption under CEQA, such as, but not limited to, room additions, reroofs, and the removal of minor accessory structures and landscaping projects. | | |
| 3.4-2 Implementation of the Proposed Project would not cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5. | **CULT-2:** Prior to development of a project that involves ground disturbance, the project proponent shall retain a qualified archaeologist, defined as meeting the Secretary of the Interior's Professional Qualification Standards for archaeology, to conduct an archaeological resources assessment including: a records search at the South Central Coastal Information Center; a Sacred Lands File search at the Native American Heritage Commission; a pedestrian field survey; recordation of all identified archaeological resources on California Department of Parks and Recreation 523 forms; an assessment of the project area's archaeological sensitivity and the potential to encounter subsurface archaeological resources and human remains; subsurface investigation to define the horizontal and vertical extents of any identified archaeological resources; and preparation of a technical report documenting the methods and results of the study. All identified archaeological resources shall be assessed for the project's potential to result in direct and/or indirect effects on those resources and any archaeological resource that cannot be avoided shall be | Significant and unavoidable | Less than significant |

**Table ES-4: Summary of Impacts and Mitigation Measures**

| *Impact* | *Mitigation Measures* | *Significance before Mitigation* | *Significance after Mitigation* |
|---|---|---|---|
| | evaluated for its potential significance prior to the City's approval of project plans and publication of subsequent CEQA documents. The qualified archaeologist shall provide recommendations regarding protection of avoided resources and/or recommendations for additional work, treatment, or mitigation of significant resources that will be affected by the project. This mitigation measure shall not apply to minor projects that would otherwise qualify for an exemption under CEQA, such as, but not limited to, the construction of a single-family residences, excavations for swimming pools, and landscaping projects. | | |
| 3.4-3 Implementation of the Proposed Project would not disturb any human remains, including those interred outside of dedicated cemeteries. | None required | Less than significant | N/A |
| 3.4-4 Implementation of the Proposed Project would not cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is: | None required | Less than significant | N/A |

**Table ES-4: Summary of Impacts and Mitigation Measures**

| *Impact* | *Mitigation Measures* | *Significance before Mitigation* | *Significance after Mitigation* |
|---|---|---|---|
| a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or<br>b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe. | | | |
| **3.5 Energy, Climate Change, and Greenhouse Gases** | | | |
| 3.5-1 Implementation of the Proposed Project would not generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment. | None required | Less than significant | N/A |
| 3.5-2 Implementation of the Proposed Project would not conflict with an | None required | Less than significant | N/A |

**Table ES-4: Summary of Impacts and Mitigation Measures**

| *Impact* | *Mitigation Measures* | *Significance before Mitigation* | *Significance after Mitigation* |
|---|---|---|---|
| applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases. | | | |
| 3.5-3 Implementation of the Proposed Project would not cause wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation. | None required | Less than significant | N/A |
| 3.5-4 Implementation of the Proposed Project would not conflict with or obstruct a State or local plan for renewable energy or energy efficiency. | None required | Less than significant | N/A |
| **3.6 Geology, Soils, Seismicity, and Paleontology** | | | |
| 3.6-1 Implementation of the Proposed Project would not directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:<br>i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault,<br>ii. Strong seismic ground shaking, | None required | Less than significant | N/A |

**Table ES-4: Summary of Impacts and Mitigation Measures**

| *Impact* | *Mitigation Measures* | *Significance before Mitigation* | *Significance after Mitigation* |
|---|---|---|---|
| iii. Seismic-related ground failure, including liquefaction, or<br>iv. Landslides. | | | |
| 3.6-2 Implementation of the Proposed Project would not result in substantial soil erosion or the loss of topsoil. | None required | Less than significant | N/A |
| 3.6-3 Implementation of the Proposed Project would not result in development located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse. | None required | Less than significant | N/A |
| 3.6-4 Implementation of the Proposed Project would not result in development located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property. | None required | Less than significant | N/A |
| 3.6-5 Implementation of the Proposed Project would not result in development located on soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water. | None required | Less than significant | N/A |

**Table ES-4: Summary of Impacts and Mitigation Measures**

| *Impact* | *Mitigation Measures* | *Significance before Mitigation* | *Significance after Mitigation* |
|---|---|---|---|
| 3.6-6 Implementation of the Proposed Project would/would not directly or indirectly destroy a unique paleontological resource or site or unique geologic feature. | **GEO-1:** Prior to development of projects that involve ground disturbance or excavations in undisturbed native soils, the project proponent shall retain a paleontologist meeting the Society of Vertebrate Paleontology's standards for qualified professional paleontologist (SVP, 2010) to conduct an paleontological resources assessment including: a site-specific database search at the Natural History Museum of Los Angeles County and/or other appropriate facilities (such as the University of California Museum of Paleontology); geologic map and scientific literature review; a pedestrian field survey, where deemed appropriate by the qualified professional paleontologist; assessment of the project area's paleontological sensitivity and paleontological monitoring requirements (locations, depths, duration, timing); and preparation of a technical report that documents the methods and results of the study. The report shall be prepared prior to the City of Diamond Bar's approval of project plans and publication of subsequent CEQA documents.<br><br>**GEO-2:** The City shall require paleontological resources monitoring for any project that has a high potential for encountering subsurface paleontological resources. The location, depths, | Significant and unavoidable | Less than significant with mitigation |

**Table ES-4: Summary of Impacts and Mitigation Measures**

| *Impact* | *Mitigation Measures* | *Significance before Mitigation* | *Significance after Mitigation* |
|---|---|---|---|
| | duration, and timing of monitoring shall be determined by the qualified professional paleontologist based on the sensitivity assessment in the study required as part of MM-GEO-1. Prior to the start of ground disturbance, the project proponent shall retain a qualified monitor meeting the Society of Vertebrate Paleontology's standards for paleontological resource monitors (SVP, 2010), and who shall work under the direct supervision of the qualified professional paleontologist. In the event that paleontological resources are unearthed during ground-disturbing activities, the monitor shall be empowered to halt or redirect ground-disturbing activities away from the vicinity of the discovery until the qualified professional paleontologist has determined its significance and provided recommendations for preservation in place or recovery of the resource. The monitor shall keep daily logs detailing the types of activities and soils observed, and any discoveries. After cessation of ground disturbance, the qualified professional paleontologist shall prepare a report that details the results of monitoring. | | |

| **Table ES-4: Summary of Impacts and Mitigation Measures** | | | |
|---|---|---|---|
| *Impact* | *Mitigation Measures* | *Significance before Mitigation* | *Significance after Mitigation* |
| **3.7 Hazards, Hazardous Materials, and Wildfire** | | | |
| 3.7-1 Implementation of the Proposed Project would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials. | None required | Less than significant | N/A |
| 3.7-2 Implementation of the Proposed 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. | None required | Less than significant | N/A |
| 3.7-3 Implementation of the Proposed Project would not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school. | None required | Less than significant | N/A |
| 3.7-4 Implementation of the Proposed Project would not result in development located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would create a significant hazard to the public or the environment. | None required | Less than significant | N/A |

**Table ES-4: Summary of Impacts and Mitigation Measures**

| *Impact* | *Mitigation Measures* | *Significance before Mitigation* | *Significance after Mitigation* |
|---|---|---|---|
| 3.7-5 Implementation of the Proposed Project would not result in development located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public uses airport, and would result in a safety hazard or excessive noise for people residing or working in the project area. | None required | No impact | N/A |
| 3.7-6 Implementation of the Proposed Project would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. | None required | Less than significant | N/A |
| 3.7-7 Implementation of the Proposed Project would not expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires. | None required | Less than significant | N/A |
| 3.7-8 Implementation of the Proposed Project would not result in substantial development located in or near State Responsibility Areas or lands classified as Very High Fire Hazard Severity Zones and would not substantially impair an adopted emergency response plan or emergency evacuation plan. | None required | Less than significant | N/A |

**Table ES-4: Summary of Impacts and Mitigation Measures**

| *Impact* | *Mitigation Measures* | *Significance before Mitigation* | *Significance after Mitigation* |
|---|---|---|---|
| 3.7-9 Implementation of the Proposed Project would not result in development located in or near State Responsibility Areas or lands classified as Very High Fire Hazard Severity Zones and would exacerbate fire risks due to slope, prevailing winds, and other factors, thereby exposing project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire. | None required | Less than significant | N/A |
| 3.7-10 Implementation of the Proposed Project would not result in development located in or near State Responsibility Areas or lands classified as Very High Fire Hazard Severity Zones and would require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines, or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment. | None required | Less than significant | N/A |
| 3.7-11 Implementation of the Proposed Project would not result in development located in or near State Responsibility Areas or lands classified as Very High Fire Hazard Severity Zones and would expose people or structures to significant | None required | Less than significant | N/A |

| **Table ES-4: Summary of Impacts and Mitigation Measures** | | | |
|---|---|---|---|
| *Impact* | *Mitigation Measures* | *Significance before Mitigation* | *Significance after Mitigation* |
| risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes. | | | |
| **3.8 Hydrology and Water Quality** | | | |
| 3.8-1 Implementation of the Proposed Project would not violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality. | None required | Less than significant | N/A |
| 3.8-2 Implementation of the Proposed Project would not substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin. | None required | Less than significant | N/A |
| 3.8-3 Implementation of the Proposed Project would not substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:<br>i. Result in substantial erosion or siltation on- or off-site,<br>ii. Substantially increase the rate or amount of surface runoff in | None required | Less than significant | N/A |

| **Table ES-4: Summary of Impacts and Mitigation Measures** | | | |
|---|---|---|---|
| *Impact* | *Mitigation Measures* | *Significance before Mitigation* | *Significance after Mitigation* |
| a manner which would result in flooding on- or offsite,<br>iii. Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff, or<br>iv. Impede or redirect flood flows. | | | |
| 3.8-4 Implementation of the Proposed Project would not risk release of pollutants in flood hazard, tsunami, or seiche zones due to project inundation. | None required | Less than significant | N/A |
| 3.8-5 Implementation of the Proposed Project would not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan. | None required | Less than significant | N/A |
| **3.9 Land Use and Housing** | | | |
| 3.9-1 Implementation of the Proposed Project would not physically divide an established community. | None required | Less than significant | N/A |
| 3.9-2 Implementation of the Proposed Project would not cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the | None required | Less than significant | N/A |

**Table ES-4: Summary of Impacts and Mitigation Measures**

| *Impact* | *Mitigation Measures* | *Significance before Mitigation* | *Significance after Mitigation* |
|---|---|---|---|
| purpose of avoiding or mitigating an environmental effect. | | | |
| 3.9-3 Implementation of the Proposed Project would not displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere. | None required | Less than significant | N/A |
| **3.10 Noise** | | | |
| 3.10-1 Implementation of the Proposed Project would not result in generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies. | None required | Less than significant | N/A |
| 3.10-2 Implementation of the Proposed Project would not result in generation of excessive groundborne vibration or groundborne noise levels. | None required | Less than significant | N/A |
| 3.10-3 Implementation of the Proposed Project would not result in development 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 could expose people | None required | No impact | N/A |

| **Table ES-4: Summary of Impacts and Mitigation Measures** | | | |
|---|---|---|---|
| *Impact* | *Mitigation Measures* | *Significance before Mitigation* | *Significance after Mitigation* |
| residing or working in the project area to excessive noise levels. | | | |
| **3.11 Noise** | | | |
| 3.11-1 Implementation of the Proposed Project would not result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for fire protection, police protection, schools, parks, or other public facilities. | None required | Less than significant | N/A |
| 3.11-2 Implementation of the Proposed Project would not increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated. | None required | Significant and unavoidable | Significant and unavoidable |
| 3.11-3 Implementation of the Proposed Project would not include recreational facilities or require the construction or expansion of recreational facilities which might | None required | Less than significant | N/A |

| **Table ES-4: Summary of Impacts and Mitigation Measures** | | | |
|---|---|---|---|
| *Impact* | *Mitigation Measures* | *Significance before Mitigation* | *Significance after Mitigation* |
| have an adverse physical effect on the environment. | | | |
| **3.12 Transportation** | | | |
| 3.12-1 Implementation of the Proposed Project would not conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities. | None required | Less than significant | N/A |
| 3.12-2 Implementation of the Proposed Project would conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b). | None required | Significant and unavoidable | Significant and unavoidable |
| 3.12-3 Implementation of the Proposed Project would not substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment). | None required | Less than significant | N/A |
| **3.13 Utilities and Service Systems** | | | |
| 3.13-1 Implementation of the Proposed Project would not require or result in the relocation or construction of new or expanded water, wastewater treatment, or storm water drainage facilities, the construction or relocation of which could cause significant environmental effects. | None required | Less than significant | Less than significant |

**Table ES-4: Summary of Impacts and Mitigation Measures**

| *Impact* | *Mitigation Measures* | *Significance before Mitigation* | *Significance after Mitigation* |
|---|---|---|---|
| 3.13-2 Implementation of the Proposed Project would not have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years. | None required | Less than significant | N/A |
| 3.13-3 Implementation of the Proposed Project would not result in a determination by the wastewater treatment provider that serves or may serve the project that it does not have adequate capacity to serve the project's projected demand in addition to the provider's existing commitments. | None required | Less than significant | N/A |
| 3.13-4 Implementation of the Proposed Project would not generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals. | None required | Less than significant | N/A |
| 3.13-5 Implementation of the Proposed Project would comply with federal, State, and local management and reduction statutes and regulations related to solid waste. | None required. | Less than significant | N/A |

| **Table ES-4: Summary of Impacts and Mitigation Measures** | | | |
|---|---|---|---|
| *Impact* | *Mitigation Measures* | *Significance before Mitigation* | *Significance after Mitigation* |
| **Impacts Not Potentially Significant** | | | |
| Implementation of the Proposed Project would not convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use. | None required | No impact | N/A |
| Implementation of the Proposed Project would not conflict with existing zoning for agricultural use, or a Williamson Act contract. | None required | No impact | N/A |
| Implementation of the Proposed Project would not conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g)). | None required | No impact | N/A |
| Implementation of the Proposed Project would not result in the loss of forest land or conversion of forest land to non-forest use. | None required | No impact | N/A |
| Implementation of the Proposed Project would not involve other changes in the existing environment which, due to their location or nature, could result in | None required | No impact | N/A |

| **Table ES-4: Summary of Impacts and Mitigation Measures** | | | |
|---|---|---|---|
| *Impact* | *Mitigation Measures* | *Significance before Mitigation* | *Significance after Mitigation* |
| conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use. | | | |
| Implementation of the Proposed Project would not result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state | None required | No impact | N/A |
| Implementation of the Proposed Project would not result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan. | None required | No impact | N/A |

# 1 Introduction

This Draft Environmental Impact Report (EIR) has been prepared on behalf of the City of Diamond Bar in accordance with the California Environmental Quality Act (CEQA) (Public Resources Code Section 21000 et seq.). The EIR analyzes potential environmental impacts of the adoption and implementation of the proposed Diamond Bar General Plan and Climate Action Plan (CAP), referred to as the "Proposed Project." This chapter outlines the purpose and overall approach to the preparation of the EIR. The City of Diamond Bar is the lead agency responsible for ensuring that the Proposed Project complies with CEQA. "Lead agency" is defined by Section 21067 of CEQA as "the public agency which has the principal responsibility for carrying out or approving a project which may have a significant effect upon the environment."

## 1.1 Purpose of the EIR

The primary intent of CEQA is to ensure that public agency decision-makers document and consider the environmental implications of their actions in order to avoid or minimize environmental damage that could result from the implementation of a project wherever feasible, and to balance environmental, economic, and social objectives. The purpose of an EIR is to identify the significant effects on the environment of a project, to identify alternatives to the project, and to indicate the manner in which those significant effects can be mitigated or avoided (California Public Resources Code [PRC] Section 21002.1). However, it is an informational document, not a decision document.

### PURPOSE

This EIR serves the following purposes:

- To satisfy CEQA requirements for analysis of environmental impacts by including a complete and comprehensive programmatic evaluation of the physical impacts of adopting and implementing the Proposed Project;
- To recommend a set of measures to mitigate any significant adverse impacts;
- To analyze a range of reasonable alternatives to the Proposed Project;
- To inform decision-makers and the public of the potential environmental impacts of the Proposed Project prior to taking action on the Proposed Project, and to assist City officials in reviewing and adopting the proposed General Plan and CAP; and
- To provide a basis for the review of subsequent development projects and public improvements proposed within the Planning Area. Subsequent environmental documents may be tiered from the Final EIR.

The Proposed Project consists of policies, diagrams, and standards to guide the future development of the City of Diamond Bar, as described in Chapter 2: Project Description. In addition, the policies and programs in the proposed CAP are included in the Proposed Project. This EIR contains analysis of all potential environmental impacts expected to result from buildout of the proposed General Plan and implementation of the various policies and programs identified as part of the Proposed Project, including those that serve to avoid or minimize adverse environmental impacts. In accordance with CEQA requirements, this EIR also identifies and evaluates alternatives to the Proposed Project, including the No Project Alternative, which represents the continued implementation of the current General Plan. An environmentally superior alternative is identified as part of the alternatives analysis.

This EIR represents the best effort, at a programmatic level, to evaluate the potential environmental impacts of the Proposed Project given its 2040 planning horizon. It can be anticipated that conditions will change; however, the assumptions used are the best available at the time of preparation and reflect existing knowledge of patterns of development.

## INTENDED USES OF THE EIR

The CEQA Guidelines (Section 15124(d)) require EIRs to identify the agencies that are expected to use the EIR in their decision-making, and the approvals for which the EIR will be used. This EIR will inform the City of Diamond Bar, in addition to other responsible agencies, persons, and the general public, of the potential environmental effects of the Proposed Project and the identified alternatives. The City of Diamond Bar will use the EIR as part of its review and approval of the proposed General Plan and CAP.

Future implementing actions for the proposed General Plan may include rezoning, Tentative Subdivision Maps, and Development Permits. This EIR is a program-level EIR and does not evaluate the project-specific impacts of individual developments that may be allowed under the Proposed Project. Pursuant to CEQA Section 15152, subsequent projects that are consistent with the Proposed Project may "tier" from this EIR, relying on the environmental analysis and mitigation measures it contains in order to streamline environmental review or to focus on project-specific environmental effects not considered in this EIR, if any. Additionally, subsequent projects that satisfy the requirements of CEQA Section 15182 or 15183 may be eligible for streamlined environmental review.

This EIR serves as the environmental document for all discretionary actions associated with development under the Proposed Project. This EIR is intended to be the primary reference document in the formulation and implementation of a Mitigation Monitoring and Reporting Program (MMRP) for the Proposed Project. This EIR is also intended to assist other responsible agencies in making approvals that may be required for development under the Proposed Project. Federal, State, regional, and local government agencies that may have jurisdiction over development proposals in the planning area include:

- U.S. Army Corps of Engineers
- Federal Emergency Management Agency
- California Department of Fish and Wildlife
- California Department of Transportation

- Los Angeles County Transportation Commission
- Walnut Valley Unified School District
- Pomona Unified School District
- South Coast Air Quality Management District
- Los Angeles Regional Water Quality Control Board

The Proposed Project would require the following approvals and discretionary and ministerial actions by the City of Diamond Bar:

- **Planning Commission**
  - Recommendation to adopt the Proposed Project
  - Recommendation to certify the EIR pursuant to CEQA
- **City Council**
  - Adoption of the Proposed Project
  - Certification of the EIR pursuant to CEQA
  - Adoption of ordinances, guidelines, programs, and other mechanisms for implementation of the Proposed Project
- **Other City Boards and Commissions**
  - Adoption of programs or other actions that implement the Proposed Project

## 1.2 Approach and Scope of the EIR

### TYPE OF EIR

This EIR is a program EIR, defined in Section 15168 of the CEQA Guidelines as: "[An EIR addressing a] series of actions that can be characterized as one large project and are related either: (1) Geographically; (2) A[s] logical parts in the chain of contemplated actions; (3) In connection with the issuance of rules, regulations, plans, or other general criteria to govern the conduct of a continuing program; or (4) As individual activities carried out under the same authorizing statutory or regulatory authority and having generally similar environmental impacts which can be mitigated in similar ways."

Program EIRs can be used as the basic, general environmental assessment for an overall program of future projects, policies, and related implementation actions, such as the Proposed Project, intended to be developed or implemented over a 20-year planning horizon. A program EIR has several advantages. First, it provides a basic reference document to avoid unnecessary repetition of facts or analysis in subsequent project-specific assessments. Second, it allows the lead agency to look at the broad, regional impacts of a program of actions before its adoption and eliminates redundant or contradictory approaches to the consideration of regional and cumulative effects.

As a programmatic document, this EIR presents a citywide assessment of the potential impacts of the Proposed Project. It does not separately evaluate subcomponents of the Proposed Project nor

does it assess project-specific impacts of potential future projects under the Proposed Project, all of which are required to comply with CEQA and/or the National Environmental Policy Act (NEPA) as applicable.

As a program EIR, the preparation of this document does not relieve the sponsors of specific projects from the responsibility of complying with the requirements of CEQA (and/or NEPA for projects requiring federal funding or approvals). As noted, individual projects are required to prepare a more precise, project-level analysis to fulfill CEQA and/or NEPA requirements as applicable. The lead agency responsible for reviewing these projects shall determine the level of review needed, and the scope of that analysis will depend on the specifics of the particular project. Pursuant to CEQA Guidelines Section 15152 (Tiering), these projects may, however, use the discussion of impacts in this EIR as a basis for their assessment of these regional, citywide, or cumulative impacts, provided that the projects are consistent with the General Plan and the data and assumptions used in this EIR remain current and valid.

## PLANNING HORIZON

For analytic purposes in this EIR, the base year is 2018 unless otherwise noted, and the horizon year representing future conditions is 2040. In cases where current data is not available, the most recent known data is used to depict baseline conditions. The horizon year of 2040 represents the target year of the Proposed Project when projects and programs are anticipated to be fully implemented. In reality, full implementation of the Proposed Plan may take more or less than 20 years.

## ENVIRONMENTAL ISSUE AREAS

Information gathered about the environmental setting is used to define relevant planning issues, determine thresholds of significance, and evaluate potential impacts. Based on the initial analysis of environmental setting and baseline conditions and comments received during the EIR Scoping Period, the following issues are analyzed in this EIR:

- Aesthetics
- Air Quality
- Biological Resources
- Cultural, Historic, and Tribal Cultural Resources
- Energy, Climate Change, and Greenhouse Gases
- Geology, Soils, Seismicity and Paleontology
- Hazards, Hazardous Materials, and Wildfire
- Hydrology and Water Quality
- Land Use, Population, and Housing
- Noise
- Public Facilities and Recreation
- Utilities and Service Systems

- Transportation

### ALTERNATIVES

CEQA requires the EIR to evaluate a reasonable range of alternatives to the Proposed Project that could feasibly attain most of the basic project objectives and would avoid or substantially lessen any of the significant environmental impacts. This EIR evaluates alternatives in Chapter 4.

## 1.3 Environmental Review Process

In accordance with CEQA Guidelines Section 15090, prior to adopting the Proposed Project, the City must certify that the Draft and Final EIRs have been completed in compliance with CEQA, and that the decision-making body of the lead agency considered the information contained in the Final EIR, and that the Final EIR reflects the lead agency's independent judgment and analysis. This section describes the environmental review process undertaken for this EIR pursuant to CEQA.

### NOTICE OF PREPARATION AND SCOPING

The Notice of Preparation (NOP) was issued on May 31, 2018 and public scoping period was provided from June 7 to July 6, 2018. A scoping meeting was held on June 21, 2018 at Diamond Bar City Hall, 21810 Copley Drive, Diamond Bar, California. The NOP for analysis of the proposed General Plan and Climate Action Plan and associated discretionary actions, and related comments letters received are included as Appendix A of this EIR.

### TRIBAL CONSULTATION

Pursuant to State law (AB 52), tribal consultation was conducted as part of preparation of this EIR. Documentation of consultation is provided in Section 3.4 of this EIR. Tribal consultation for the proposed General Plan was conducted pursuant to the requirements of SB 18.

### DRAFT EIR REVIEW

The Draft EIR is distributed for review to the public and interested and affected agencies for a period of 45 days for the purpose of providing comments "on the sufficiency of the document in identifying and analyzing the possible impacts on the environment and ways in which the significant effects of the project might be avoided and mitigated" (Section 15204(a), CEQA Guidelines). In accordance with Sections 15085(a) and 15087 (a)(1) of the CEQA Guidelines, upon completion of the Draft EIR, a Notice of Completion is filed with the State Office of Planning and Research and Notice of Availability of the Draft EIR issued in a newspaper of general circulation in the area.

The Draft EIR and all related technical studies are available for review during the public review period at the offices of the City of Diamond Bar Planning Division, located at 21810 Copley Drive, Diamond Bar, California 91765 and on the Planning Division website: www.DiamondBarCa.gov.

## FINAL EIR AND CERTIFICATION

Following the end of the public review period, the City, as Lead Agency, will consider all comments and will provide written responses to comments received on the Draft EIR per CEQA Guidelines Section 15088. All comments and responses will be included in the Final EIR. Detailed responses to the comments received during public review, a Mitigation Monitoring and Reporting Program (MMRP), Findings of Fact, and a Statement of Overriding Considerations for any impacts identified in the EIR as significant and unavoidable will be prepared and compiled as part of the EIR finalization process. The culmination of this process is a public hearing where the City Council will determine whether to certify the Final EIR as being complete and in accordance with CEQA. The Final EIR will be available for public review at least 10 days before the public hearing in order to provide commenters the opportunity to review the written responses to their comment letters.

## RELEVANT PLANS AND ENVIRONMENTAL STUDIES

Pursuant to CEQA Guidelines Section 15150, an EIR may incorporate by reference all or portions of another document which is a matter of public record or is generally available to the public. Where all or part of another document is incorporated by reference, the incorporated language shall be considered to be set forth in full as part of the text of the EIR. Documents incorporated by reference must be briefly summarized in the EIR and made available to the public for inspection at a public place or public building. The following reports are hereby incorporated by reference and are available for review at the City of Diamond Bar Planning Division:

- City of Diamond Bar Existing Conditions Report, Volumes I, II, and III (March 2017)
- City of Diamond Bar Proposed General Plan (July 2019)
- City of Diamond Bar Proposed Climate Action Plan (July 2019)

## ORGANIZATION OF THE EIR

This EIR is organized into the following chapters, plus appendices.

ES. **Executive Summary.** Summarizes the EIR by providing an overview of the Proposed Project, the potentially significant environmental impacts that could result from the Proposed Project, the mitigation measures identified to reduce or avoid these impacts, alternatives to the Proposed Project, and identification of the environmentally superior alternative.

1. **Introduction.** Introduces the purpose for the EIR, explains the EIR process and intended uses of the EIR, and describes the overall organization of this EIR.
2. **Project Description.** Describes in detail the proposed General Plan and Climate Action Plan, including the location and planning boundaries, purpose and objectives, buildout, and implementation of the Proposed Project.
3. **Environmental Settings and Impacts.** Analyzes the environmental impacts of the Proposed Project. Impacts are organized by major topic. Each topic area includes a description of the environmental setting, significance criteria, methodology and potential impacts, a significance determination, and, as applicable, mitigation measures.

4. **Analysis of Alternatives.** Presents a reasonable range of alternatives to the Proposed Project including the No Project Alternative and two General Plan alternatives; provides discussion of environmental impacts associated with each alternative, compares the relative impacts of each alternative to those of the Proposed Project and other alternatives, discusses the relationship of each alternative to the Proposed Project's objectives, and identifies the environmentally superior alternative.

5. **CEQA Required Conclusions.** Summarizes significant environmental impacts, including growth-inducing, cumulative, and significant and unavoidable impacts; significant irreversible environmental change; and impacts found not to be significant.

6. **References.** Lists documents and other information sources used in the preparation of the EIR.

7. **List of Preparers.** Identifies the persons and organizations that contributed to the preparation of the EIR.

8. **Appendices**. Includes the NOP and compilation of agency and public comments received on the NOP, as well as technical documentation of data used for environmental analysis in this EIR. Appendices are listed in the Table of Contents.

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# 2 Project Description

This EIR analyzes the proposed Diamond Bar General Plan 2040 (General Plan) and the proposed Diamond Bar Climate Action Plan (CAP), together referred to as the "Proposed Project." Under California Government Code Section 65300 et. seq., cities are required to prepare a general plan that establishes policies and standards for future development, circulation, housing affordability, and resource protection for the entire planning area. By law, a general plan must be an integrated, internally consistent statement of city policies. California Government Code Section 65302 requires that the general plan include the following seven elements: land use, circulation, housing, conservation, open space, noise, and safety. State law allows cities to include additional (or optional) elements in general plans as well. Optional elements included in the proposed General Plan address community values related to economic development, community character, community health, and sustainability. All elements of the Proposed Project have equal weight, and no one element supersedes another. The Proposed Project includes six of the seven elements. The Housing Element, which is subject to a separate, State-mandated eight-year update cycle, was last updated in 2014, and is not part of the Proposed Project.

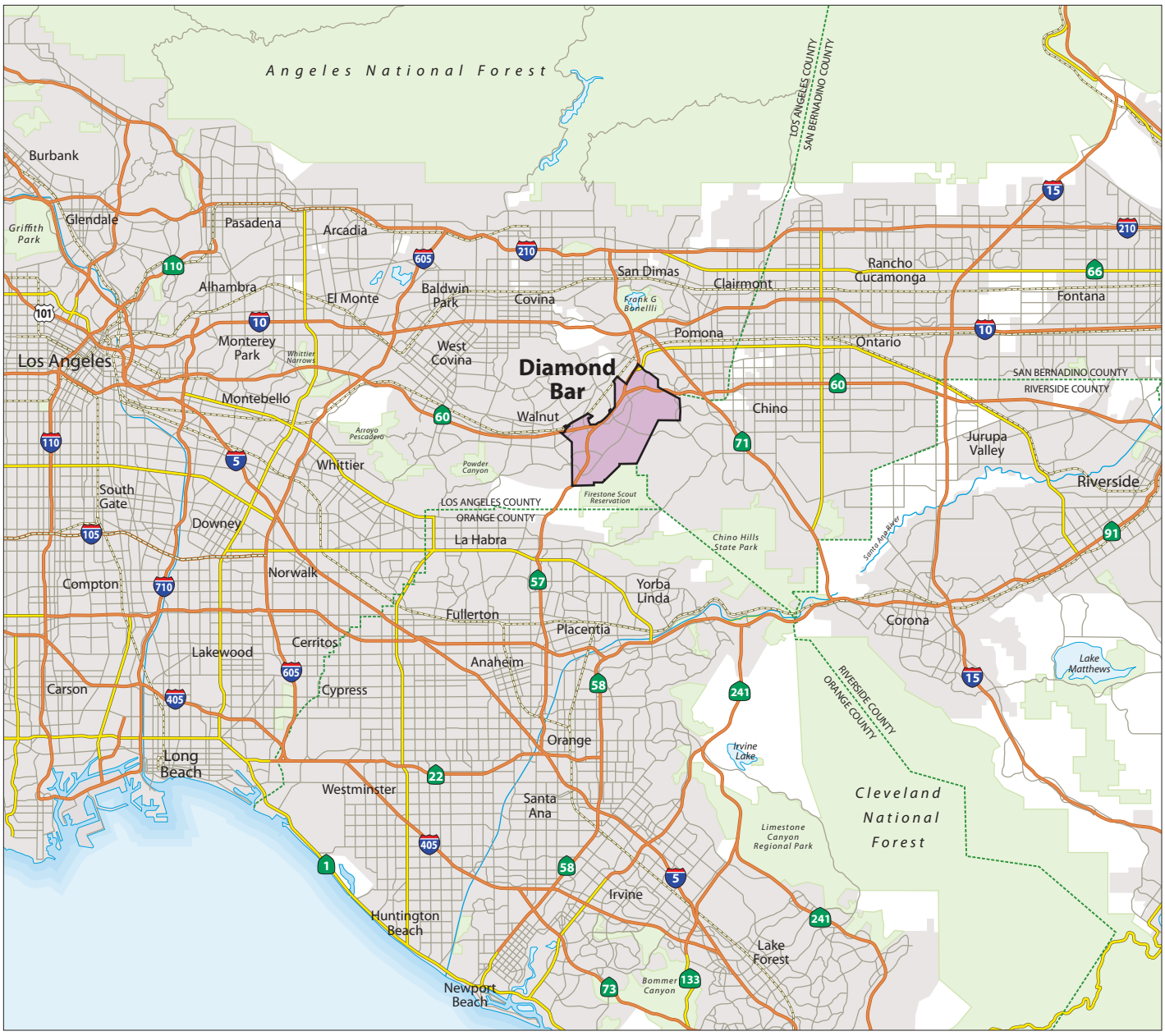
This chapter introduces the purpose and objectives of the Proposed Project and provides a description of the Proposed Project that is used throughout the EIR analysis. This includes a description of the existing regional and local project setting, an outline of the projected population and employment growth rates and development patterns through the planning horizon year, the proposed General Plan land use diagram, key data tables, and key policy direction for both the proposed General Plan and the proposed CAP. This project description provides the basis for the environmental analysis in Chapter 3.

## 2.1 Regional Location and Project Boundaries

### REGIONAL LOCATION

The City of Diamond Bar is located at the far eastern edge of the San Gabriel Valley, within 30 miles driving distance of the cities of Los Angeles, Riverside, and Irvine. The western edge of the City lies at the intersection of State Route 57 (SR-57) and SR-60, with SR-57 connecting the City to Interstate 10 (I-10) one and a half miles to the north and SR-60 connecting to SR-71 roughly two miles to the east. The Industry Metrolink Station lies on Diamond Bar's northern border with the City of Industry, providing east-west transit connections to Los Angeles and Riverside. The regional setting is depicted in Figure 2.1-1.

# Figure 2.1-1: Regional Setting




*Source: City of Diamond Bar 2019, Dyett & Bhatia 2019*

## PLANNING AREA

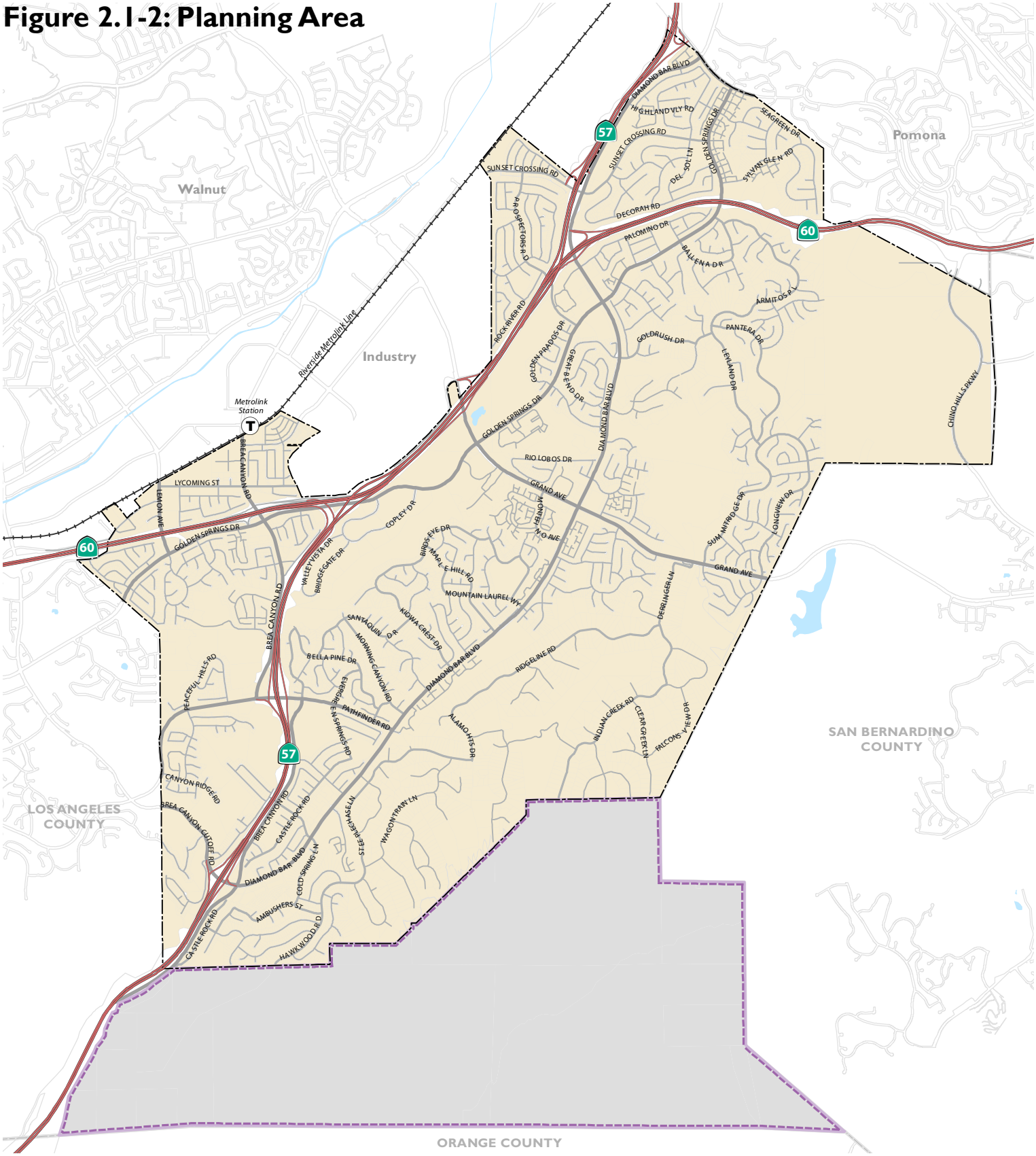
### General Plan

The Planning Area for the General Plan, shown in Figure 2.1-2, is defined as the land area addressed by the General Plan's policies and land use designations. The Planning Area encompasses 13,039 acres, of which 9,526 acres (73 percent of the total) are in the City limits and the remaining 3,513 acres (27 percent) are in the Sphere of Influence (SOI). It is bounded by the Cities of Industry and Walnut to the north, Pomona and Chino Hills to the east, and Brea to the south, and unincorporated Los Angeles County to the west. While Diamond Bar does not have jurisdiction in areas outside of its City limits, general plans commonly consider land outside a city's jurisdictional boundaries that "bear relation to its planning" (California Government Code Section 65300). This typically includes a City's SOI.

### Climate Action Plan

As a document adopted by the Diamond Bar City Council, the CAP applies to the municipal limits of the City of Diamond Bar. All information and data presented in the CAP, unless otherwise noted, is for the area within the City's municipal limits.

# Figure 2.1-2: Planning Area




*Source: City of Diamond Bar 2019; Dyett & Bhatia, 2019*

# 2.2 Purpose and Objectives of the Proposed Project

The CEQA Guidelines require a description of the Proposed Project's purpose and objectives (California Code of Regulations [CCR] 15124).

## GENERAL PLAN

### Purpose

California Government Code Section 65300 requires each city and county in California to adopt a General Plan "for the physical development of the county or city, and any land outside its boundaries which…bears relation to its planning." The Diamond Bar General Plan can be considered the City's development constitution, containing both a statement of the community's vision of its long-term development as well as the policies to support that vision by guiding the physical growth of the City. The proposed General Plan contains policies to guide decision-making related to development, housing, transportation, environmental quality, public services, parks, and open spaces. The proposed General Plan is a document to be adopted by the City Council that serves to:

- Establish a long-range vision that reflects the goals and desires of the Diamond Bar community;
- Provide City departments, the Planning Commission, and the City Council with strategies and implementing actions to achieve the vision;
- Provide a basis for evaluating whether individual development proposals and public projects are in harmony with the General Plan vision and policies;
- Provide standards and guidance to allow City departments, other public agencies, and private developers to design projects that are consistent with the General Plan vision and policies;
- Provide the basis for establishing other implementing plans and programs, such as the Zoning Ordinance, subdivision regulations, specific and master plans, and the Capital Improvement Program.

Due to the general and long-range nature of the proposed General Plan, there will be instances where subsequent, more detailed studies will be necessary in order to implement the plan's policies.

## OBJECTIVES

The objective of the Proposed Project is to implement the Diamond Bar community's vision for the City and the seven Guiding Principles described below.

### Community Vision

The community vision forms the basis for the General Plan's policies. The vision is an expression of the collective hopes and aspirations that members of the Diamond Bar community have for the City's future, and was formed from all of the input shared by community members throughout the planning process.

> *In 2040 Diamond Bar has a balance of housing and retail choices, ample job and business opportunities, and an abundance of options for gathering and recreation. A lively Town Center provides community members with access to local services, entertainment, employment, and homes in an attractive, walkable environment. Diamond Bar continues to welcome and celebrate cultural diversity, and maintains a safe, quiet, and family-friendly atmosphere where residents of all ages and abilities are happy and healthy and live sustainably. Through thoughtful planning, collaboration, and stewardship, the community is able to meet the needs of current and future generations, both growing as a city and preserving the strong connections and environmental resources that define its "country living" identity.*

### Guiding Principles

The following Guiding Principles expand upon the community vision, establishing detailed, actionable objectives that support the vision and provide a foundation for the policies in the General Plan. The Guiding Principles emerged from the various comments and community discussions that took place as part of the planning process. All of the General Plan's policies advance one or more of the Guiding Principles in order to achieve the community vision.

1. **Maintain a welcoming, safe small-town feel.** Continue to cultivate a welcoming, safe small-town feel that is inclusive of Diamond Bar's diverse and changing population while preserving existing neighborhoods.
2. **Promote a family-friendly community.** Promote Diamond Bar's strong and high performing school system, support the City's youth activities and provide housing choices for families to continue to make Diamond Bar a desirable place for families.
3. **Create an inviting Town Center.** Foster the development of a vibrant, pedestrian-oriented Town Center in Diamond Bar that serves as a place for Diamond Bar's residents to shop, dine, and gather.
4. **Develop attractive commercial centers and thriving businesses.** Help Diamond Bar's existing commercial centers and businesses to thrive, and attract new businesses to centrally located focus areas to serve the daily needs of residents.
5. **Establish a balanced circulation network.** Improve mobility for all residents, visitors, and workers by providing a diversity of safe and convenient transportation options in a cohesive network, including active transportation, transit, and automobile facilities.

6. **Support Healthy and Sustainable Lifestyles.** Promote human and community health and environmental quality through the provision of parks and open spaces, community programs and services, the preservation of local and regional environmental resources, and the reduction of the greenhouse gas emissions.
7. **Foster a strong, collaborative community.** Provide opportunities for gatherings among friends, families, and the community at large and encourage all members of the community to participate in planning and decision-making for the future.

## CLIMATE ACTION PLAN

### Purpose

A CAP is a comprehensive plan for addressing a community's greenhouse gas (GHG) emissions. The proposed CAP was developed concurrently with the proposed General Plan, reflecting the City's proposed land use and transportation strategy, and GHG implications of various proposed General Plan's goals and policies

The proposed CAP is intended to reinforce the City's commitment to reducing GHG emissions, and demonstrate how the City will comply with State GHG emission reduction standards. As a Qualified GHG Reduction Strategy, the CAP will also enable streamlined environmental review of future development projects, in accordance with CEQA. Specifically, the proposed CAP quantifies existing and projected GHG emissions in the Planning Area through horizon year 2040 resulting from activities within the Planning Area and the region, and it includes GHG emissions reduction targets for the year 2040. The proposed CAP also contains actions that demonstrate the City's commitment to achieve State GHG reduction targets through monitoring and reporting processes to ensure that targets are met, and options for reducing GHG emissions beyond State requirements. If the proposed CAP is adopted, projects that demonstrate consistency with the updated Diamond Bar General Plan and CAP will be subject to a streamlined CEQA review process for mitigation of GHG emissions, pursuant to CEQA Guidelines §15183.5.

California has taken an aggressive stance to reduce GHG emissions in order to combat the impacts of climate change. Executive Order S-3-05 (EO S-3-05) recognizes California's vulnerability to increased temperatures causing human health impacts, rising sea levels, and reduced Sierra snowpack due to a changing climate. The Executive Order established targets to reduce GHG emissions to 2000 levels by 2010, to 1990 levels by 2020, and to 80 percent below 1990 levels by 2050. The Global Warming Solutions Act of 2006 (Assembly Bill 32, or AB 32) codified the target set in EO S-3-05 of statewide reductions to 1990 emissions levels by 2020.

Executive Order S-3-15 (EO S-3-15), issued in 2015, established an interim target to reduce GHG emissions to 40 percent below 1990 levels by 2030. In 2016, the California Legislature passed Senate Bill (SB) 32, which codified the 2030 GHG emissions reduction target. To reflect this target, CARB's 2017 Climate Change Scoping Plan Update recommends that local governments target 6 metric tons carbon dioxide equivalent ($MTCO_2e$) per capita for 2030 emissions and 2 $MTCO_2e$ per capita for 2050 emissions.

The CAP's GHG emission targets are based on meeting the goals set in EO S-3-15, SB 32, and EO S-3-05 following the CAP guidelines established in the 2017 Scoping Plan. The CAP uses a threshold of 4 $MTCO_2e$ per capita for 2040 GHG emissions, which is calculated as the midpoint

between 2030 and 2050 targets recommended by the 2017 Scoping Plan. This threshold is more conservative than a target of 60 percent below 1990 emissions levels, which would mirror emissions targets codified in EO S-3-05 and EO S-3-15, and ensures that the proposed CAP is capable of supporting Diamond Bar and California's aggressive GHG emissions reduction goals.

### Objectives

Section 15183.5 of the CEQA Guidelines permits lead agencies to analyze and mitigate the significant effects of GHG emissions at a programmatic level through a plan to reduce GHG gas emissions. In doing so, later project-specific environmental documents may tier from and/or incorporate by reference that existing programmatic review. The proposed CAP's objectives are to meet CEQA requirements (CCR Section 15183.5) to allow for future tiering and streamlining of the analysis of GHG emissions, which state that a plan for the reduction of GHG emissions should:

- Quantify GHG emissions, both existing and projected over a specified time period, resulting from activities within a defined geographic area;
- Establish a level, based on substantial evidence, below which the contribution to GHG emissions from activities covered by the plan would not be cumulatively considerable;
- Identify and analyze the GHG emissions resulting from specific actions or categories of actions anticipated within the geographic area;
- Specify measures or a group of measures, including performance standards, that substantial evidence demonstrates, if implemented on a project-by-project basis, would collectively achieve the specified emissions level;
- Establish a mechanism to monitor the plan's progress toward achieving the level and to require amendment if the plan is not achieving specified levels;
- Be adopted in a public process following environmental review.

## INTENDED USES OF THE EIR

The CEQA Guidelines (Section 15124(d)) require EIRs to identify the agencies that are expected to use the EIR in their decision-making, and the approvals for which the EIR will be used. This EIR will inform the City of Diamond Bar, in addition to other responsible agencies, persons, and the general public, of the potential environmental effects of the Proposed Project and the identified alternatives. The City of Diamond Bar will use the EIR as part of its review and approval of the proposed General Plan and Climate Action Plan. Other agencies expected to use the EIR include: Los Angeles County, California Department of Transportation District 7, California Department of Fish and Wildlife, Regional Water Quality Control Board – Santa Ana Region, South Coast Air Quality Management District, and Southern California Association of Governments, and any other responsible or trustee agencies.

# 2.3 General Plan 2040

## PLANNING HORIZON

The planning horizon is the period of time for which the Proposed Project looks ahead in order to comprehensively plan for the City's next major phase of growth, change, and investment. The Proposed Project establishes a horizon year of 2040. As planning is a continuous and dynamic process, the proposed General Plan is intended to be reviewed regularly and amended as necessary as new information becomes available and the community's priorities shift.

## PLANNING PROCESS

The Diamond Bar General Plan was first adopted in 1995. Since then, substantial changes to the planning context of the City have occurred, including accelerated growth in the region and shifts in the community's demographics, as well as new ways of thinking about sustainability, public health, and placemaking. In light of these changes, the City undertook a comprehensive update of the General Plan as an opportunity to reassess and refine its long-term vision and identify the new challenges it will face, opportunities it will follow, and approaches it will use to make that vision a reality. The update process began in the summer of 2016 and included the following steps.

- Project Initiation and Issue Identification
- Existing Conditions, Trends, and Opportunities Assessment
- Exploring Alternatives
- Preferred Plan and Key Goals
- Draft General Plan
- Draft Climate Action Plan
- Environmental Impact Report
- Adoption

### Outreach Activities

Public participation was an essential part of the General Plan update process. A variety of outreach activities took place throughout the planning process to provide a forum to discuss priorities and values, allow for the evaluation of different policy options, and bring a wide range of community members and perspectives into the conversation. Summaries of each activity were made available to members of the public and decision-makers and are part of the public record.

#### *Stakeholder Interviews*

The planning team conducted a series of interviews with stakeholders representing a range of local and regional interests. A total of 23 stakeholders participated, including real estate professionals, local developers, commercial property owners, service organization representatives, major employers, active community members, former City Council members, school district administrators, small business owners, and youth organizations. Stakeholders were given the opportunity to provide their viewpoints on issues of significance, Diamond Bar's future, general

planning concerns, and other topics of specific interest. The interviews provided the planning team with insight into issues of significance for each of the stakeholder groups.

### *Surveys*

Two online surveys were conducted over the course of the planning process.

The first survey occurred during the visioning phase of the project and was intended to explore community members' vision for the future of the City as well as uncover any important issues related to various aspects of life in Diamond Bar. The survey was available online in October 2016 in English, Korean, and Chinese, and was also administered in person at pop-up booths at four different community events (Barktober Fest, Quail Summit Elementary School Carnival, Eco Expo, and Diamond Bar High School Food Festival). The survey received a total of 501 responses.

The second survey took place between October 12 and November 12, 2017 and was focused on gathering community reactions to the three land use alternatives. The survey was available online in English, Chinese, and Korean, and printed versions were also provided at the Whispering Fountains of Diamond Bar senior housing complex, the Diamond Bar Center, the public library, and City Hall. Respondents also had the option of printing out the survey from the project website to complete by hand and return to City Hall. A total of 638 people responded to the survey.

### *Workshops*

The first community workshop was held on November 9, 2016 and used activities and discussion to collect information from community members regarding their visions for the future and their perspectives on major planning issues to be addressed during the update. Around 80 community members participated in the workshop, while a number of Planning Commissioners, City Council members, and General Plan Advisory Committee members observed the event. Translation services were provided for Mandarin, Korean, and American Sign Language.

The second community workshop took place on October 19, 2017 and focused on the three land use alternatives. Participants received a presentation on the alternatives and their potential impacts and took part in discussions about their preferences and concerns for each alternative. Approximately 130 community members attended the workshop, along with members of the Planning Commission, City Council, and GPAC who observed. Mandarin and Korean translation services were provided.

### *Pop Ups*

Over the course of the project, the City held a number of pop-up events to raise awareness about the planning process and gather comments from a large cross-section of Diamond Bar residents. During the visioning phase of the project, the City set up booths at four community events to promote the first public workshop and administer the first survey. During the alternatives phase, the City focused on popular destinations such as the high schools and local markets to promote the alternatives workshop and survey and receive feedback.

### *Newsletters*

The City used direct mailings to update community members on progress, announce upcoming workshops and surveys, and provide background information on the process. Two newsletters were mailed to all Diamond Bar addresses to announce the start of the project and introduce the alternatives. The newsletters were also available online through the project website. The City also made announcements through its monthly newsletter, DBConnection, and news releases through local outlets and the City's website.

### *Social Media Toolkit*

A social media tool kit was developed to provide key stakeholders with copy-ready text for incorporation into social media sites. The kit included graphics and content to easily convey project information. Key stakeholders were asked to choose the content that best resonated with their constituents and contacts list and copy and paste it to their social media platforms. The social media tool kit consisted of post for social media venues, a brief article, and a widget that could easily be pinned to websites and social media platforms. Stakeholders invited to participate included educational institutions/principals, homeowner associations, and civic and professional groups.

### *Website*

A project website was created to provide updates on the planning process, meeting materials and minutes, documents for public review, and additional background information on Diamond Bar and the General Plan update.

## Public Meetings

### *General Plan Advisory Committee*

A General Plan Advisory Committee (GPAC) was established by the City Council to serve in an advisory role to the Planning Commission and City Council on matters related to the General Plan update. The GPAC was convened to provide input on the project, reviewing work products and draft policies, receiving and considering public comments, and sharing perspectives based on their experiences and conversations with community members before making recommendations to the Planning Commission and City Council. The GPAC was made up of 15 volunteers from the community who met a total of 10 times over the course of the project. All GPAC meetings were open to the public and allowed for public comment, and were subject to the Brown Act.

### *Planning Commission and City Council*

The Planning Commission and City Council held three public joint study sessions to provide direction on the General Plan update. The first, held on August 10, 2016, covered the responsibilities of the GPAC and the identification of issues that the project should address. The second meeting, held on March 29, 2017, covered findings from community outreach and the existing conditions research. The third meeting, held on January 30, 2018, covered the land use alternatives and resulted in the selection of the Preferred Plan.

Upon completion of the Public Review Draft General Plan and Environmental Impact Report, the Planning Commission and City Council scheduled two joint study sessions prior to the formal adoption hearings toward the end of 2019.

## GENERAL PLAN ORGANIZATION

The proposed General Plan is organized by topic in eight chapters. Chapters 2 through 8 constitute the seven elements of the General Plan. The proposed General Plan differs from the seven 1995 General Plan elements in the following ways: it introduces three new optional elements – Community Character and Placemaking, Public Facilities and Services, and Community Health and Sustainability, incorporates the topic of Economic Development into the Land Use element, incorporates the Conservation and Open Space elements into the Resource Conservation element, and incorporates the Safety and Noise elements into the Public Safety element. Additionally, as housing elements are required to be updated more frequently on a State-mandated cycle, the Diamond Bar Housing Element is provided under a separate cover. The elements and goals of the proposed General Plan are summarized as follows.

- **Chapter 1: Introduction.** This chapter outlines the vision for Diamond Bar's future and guiding principles for its growth and development, provides a basic context for the General Plan Planning Area, and covers the General Plan's purpose, relationships to other plans, organization, and requirements for administration.
- **Chapter 2: Land Use and Economic Development.** This chapter describes the existing land use pattern and provides an explanation of the General Plan's approach to citywide growth. The goals and policies in this chapter provide the physical framework for land use and development in the City. In addition, this chapter provides an overview of the population and employment context in Diamond Bar, and outlines goals and policies to support economic development. The land use portion of this chapter is required by State law, while the economic development portion is an optional topic. Goals for this chapter include:
  - Managing growth and maintaining community character;
  - Promoting high-quality and sustainable development;
  - Preserving open space and natural resources; and
  - Attracting new development and supporting existing businesses to sustain a diverse economy and stable fiscal standing.
- **Chapter 3: Community Character and Placemaking.** This element provides policy direction on the desired character of Diamond Bar at a citywide scale, as well as an urban design framework for development occurring in the Town Center, Neighborhood Mixed Use, Transit-Oriented Mixed Use, and Community Core focus areas. This is an optional element not required by State law. Goals for this element include:
  - Fostering a distinctive community character;
  - Preserving open spaces and existing residential neighborhoods; and
  - Encouraging development into accessible, pedestrian-oriented mixed-use areas.
- **Chapter 4: Circulation.** This element includes policies and standards that seek to maintain safe and efficient circulation for all modes of travel. It identifies street improvements, and

addresses walking, biking, transit, and parking to support a multi-modal circulation system. Specific street improvements include traffic calming strategies for Diamond Bar Boulevard between Temple Avenue and Golden Springs Drive; new connections within mixed-use areas to provide for pedestrian and bicycle connections; construction of secondary access to Diamond Ranch High School; new Class IV Protected Bike Lanes along Diamond Bar Boulevard, Golden Springs Drive, Brea Canyon Road (North), Pathfinder Road, and Chino Hills Parkway; and improved crosswalks along Brea Canyon Road and Lemon Avenue. This element is required by State law. Goals for this element include:

- Improving the operating efficiency of Diamond Bar's transportation system and encouraging reduction in vehicle miles traveled (VMT);
- Emphasizing a Complete Streets concept that promotes pedestrian and bicycle comfort, connectivity, and accessibility and is compatible to adjacent land uses;
- Accommodating future transportation options in a way that ensures safety and access for all users and modes;
- Creating programs for funding transportation improvements;
- Maximizing the availability, efficiency, and effectiveness of public transit service;
- Providing adequate parking while promoting walkability, ride-sharing, and alternative transportation modes; and
- Minimizing quality of life impacts of goods movement while facilitating safe and efficient movement practices.

- **Chapter 5: Resource Conservation.** This element includes background information and policies relating to the conservation and preservation of open space resources, biological resources, water resources, air quality, and cultural resources. This element meets the State requirements of both an Open Space Element and a Conservation Element. Goals for this element include:
  - Preserving, enhancing, and restoring natural resources and scenic views;
  - Ensuring stewardship of natural resources;
  - Improving regional air quality; and
  - Protecting historic, cultural, and archaeological resources.
- **Chapter 6: Public Facilities and Services.** This element contains background information, goals, and policies related to schools, community facilities and libraries, parks and recreation, water supply and demand, and public utilities. This is an optional element not required by State law. Goals for this element include:
  - Providing high quality parks and recreational services;
  - Developing a system of interconnected parks, open spaces, and regional hiking trails;
  - Providing all residents with access to high quality local education facilities and learning opportunities;
  - Providing high-quality, sustainable, and efficient public facilities and services; and
  - Providing high-quality telecommunications service to all residents, businesses, and visitors.

- **Chapter 7: Public Safety.** This element provides an overview of the public safety risks in Diamond Bar related to seismic and geologic hazards, flood hazards, hazardous materials and operations, airport hazards, fire hazards, and noise, as well as corresponding mitigating policies. A Safety Element and a Noise Element are required by State law. Goals for this element include:
  - Effectively coordinating responses to emergencies and natural disasters;
  - Maintaining safety services that are responsive to citizen' needs;
  - Implementing and updating Diamond Bar's Local Hazard Mitigation Plan; and
  - Maintaining high levels of health and safety.
- **Chapter 8: Community Health and Sustainability.** This element outlines public health concerns related to the General Plan, and includes goals and policies to improve public health through environmental justice, active living, healthy food, social connections, and sustainable living. This is an optional element not required by State law. Goals for this element include:
  - Supporting healthy and active lifestyles for all residents by integrating opportunities for active transportation and physical activity;
  - Providing equal access to health services, medical facilities, and other public services;
  - Promoting a healthy and equitable food system;
  - Promoting health equity and environmental justice by involving all interested parties;
  - Enhancing sustainability by reducing greenhouse gas emissions, protecting and fostering open spaces, and promoting energy efficiency;
  - Encouraging waste reduction and diversion practices; and
  - Increasing the community's resiliency and capacity to resist and recover from climate change impacts.

## LAND USE FRAMEWORK

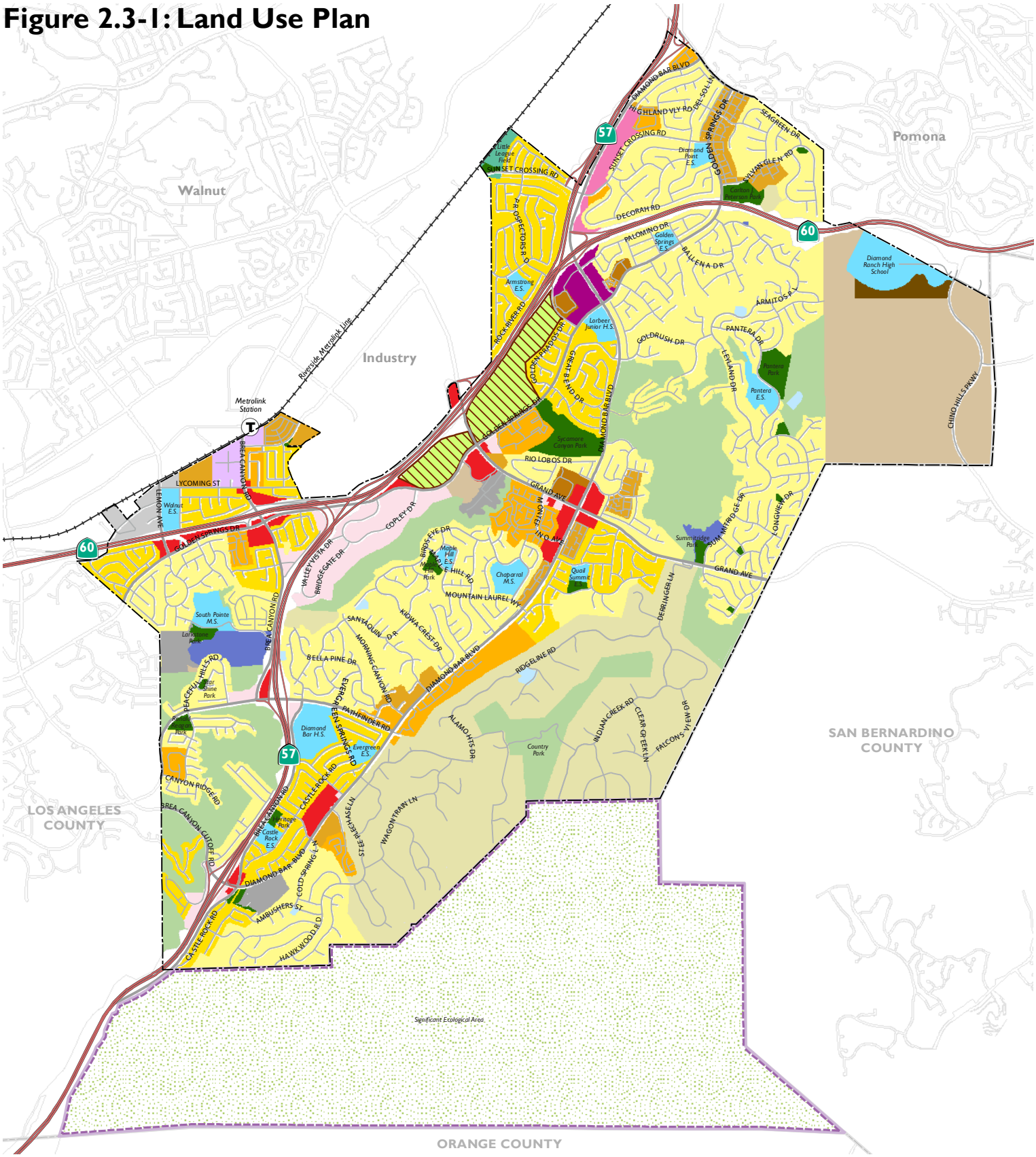
The land use framework of the proposed General Plan is depicted on the proposed General Plan Land Use Diagram (Figure 2.3-1), which is a graphic representation of the land use themes and policies in the proposed General Plan. It designates the proposed general location, distribution, and extent of land uses. The classifications are meant to be broad enough to give the City flexibility in implementation, but clear enough to provide sufficient direction to carry out the goals of the proposed General Plan. The diagram is to be used and interpreted only in conjunction with the text and other figures contained in the proposed General Plan. The legend of the proposed General Plan Land Use Map includes the land use classifications described below.

Overall, the Proposed Project retains the existing land use framework of the 1995 General Plan, with some targeted changes. The Proposed Project provides for four focus areas where major land use changes are planned to take place as part of a strategy to provide walkable mixed-use activity centers (Figure 2.3-2). These focus areas provide opportunities for infill development that can incorporate a range of housing, employment, and recreational uses to meet the needs of families, young people, senior citizens, and residents of all incomes. These focus areas were designed in

response to community priorities including a desire for expanded access to entertainment and community gathering places, and the need to accommodate the City's growing and diverse population. New Land Use designations are proposed for each of these focus areas to facilitate their development, as described under Land Use Classifications, below.

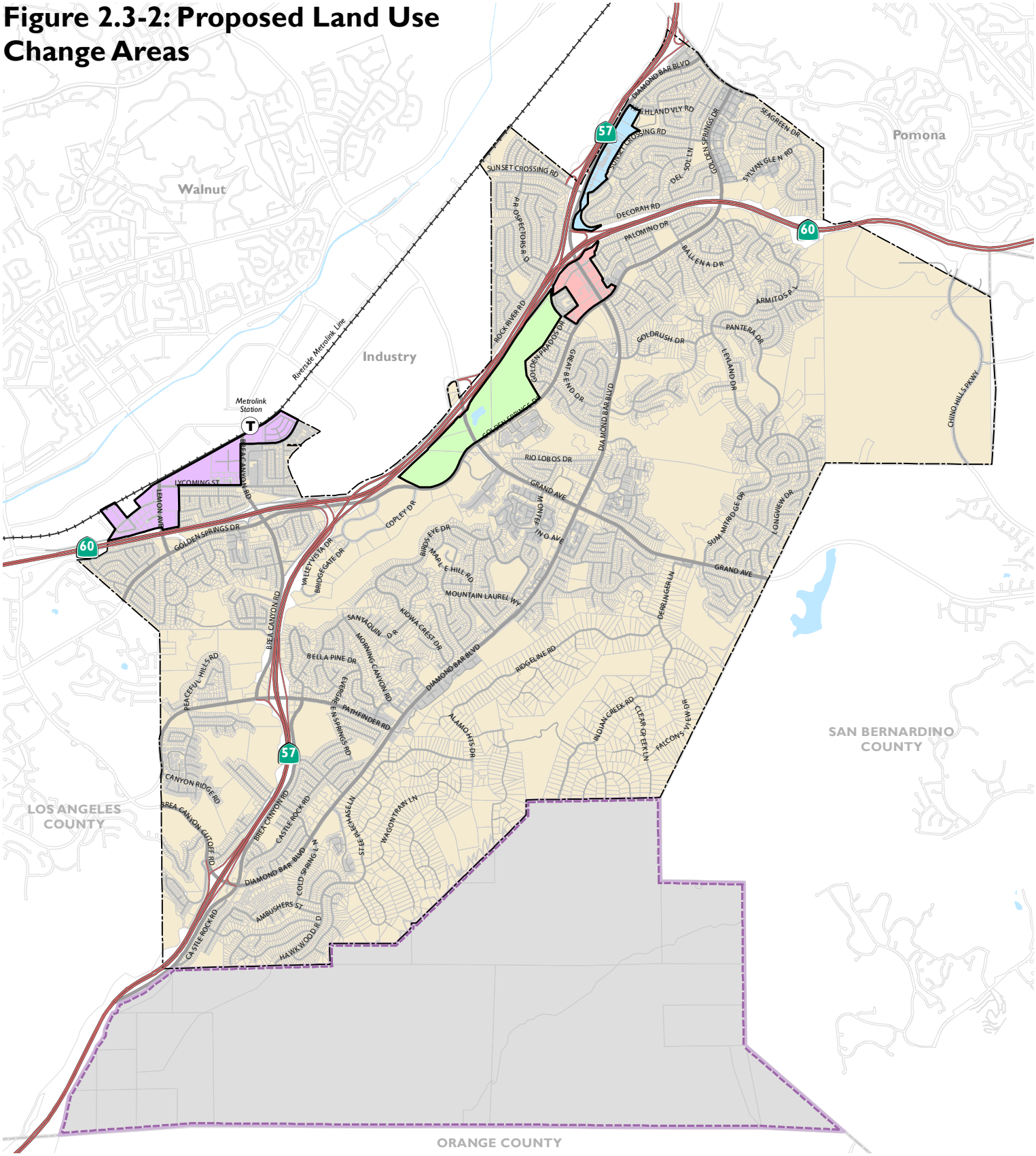
- The Town Center focus area is proposed along Diamond Bar Boulevard, between SR-60 and Golden Springs Drive, to build on the success of recent commercial redevelopment in that area. The Town Center would serve as a center of activity for residents of Diamond Bar, providing entertainment and retail opportunities and community gathering spaces in a pleasant, walkable environment.
- The Neighborhood Mixed Use focus area is envisioned as a combination of residential and ancillary neighborhood-serving retail and service uses to promote revitalization of the segment of North Diamond Bar Boulevard between the SR-60 interchange and Highland Valley Road. The neighborhood has potential to benefit from its proximity to Mt. San Antonio College and Cal Poly Pomona.
- The Transit-Oriented Mixed Use focus area leverages underutilized sites adjacent to the Metrolink station to provide for higher-density housing, offices, and supporting commercial uses close to regional transit. The focus area would allow for growth in employment opportunities in addition to contributing to housing availability in the City, and would be a key location to emphasize multi-modal transportation options tied to land use.
- The Community Core focus area covers the existing Diamond Bar Golf Course, which is currently operated by Los Angeles County. Should the County choose to discontinue operation of the golf course or to reduce the size of the golf course, the Community Core would be the City's preferred approach for reuse of the site. The Community Core is envisioned as a master-planned mixed-use, pedestrian-oriented community and regional destination. The majority of the northern portion is envisioned to support a park or consolidated golf course along with additional community or civic uses. The southern portion is envisioned to accommodate a mix of uses emphasizing destination and specialty retail, dining, and entertainment, including opportunities for residential, hospitality, and community and civic uses. This location would benefit greatly from proximity to the freeways and nearby commercial uses.

# Figure 2.3-1: Land Use Plan




*Source: City of Diamond Bar 2019; Dyett & Bhatia, 2019*

# Figure 2.3-2: Proposed Land Use Change Areas




**Change Areas**

- 1
- 2
- 3
- 4

- Highways
- Ramps
- Major Roads
- Local Roads
- Railroads
- Water Features
- City of Diamond Bar
- Sphere of Influence
- County Boundary

0 0.25 0.5 1 MILES

*Source: City of Diamond Bar 2019; Dyett & Bhatia, 2019*

## Land Use Classifications

The following land use designations shown on the Proposed Project Land Use Diagram would apply in the Planning Area. These designations are meant to be broad enough to give the City flexibility in implementing the Proposed Project; however, they are also meant to be clear enough to provide sufficient direction regarding the expected type and location of land uses planned in the City, as well as describe the relative similarities and differences between uses. The City's Zoning Ordinance contains more detailed provisions and standards. More than one zoning district may be consistent with a single General Plan land use designation.

The Proposed Project introduces six new land use designations and a Community Core overlay. The Neighborhood Mixed Use, Town Center Mixed Use, and Transit Oriented Mixed Use designations and the Community Core Overlay are described above. The new Office designation and existing General Commercial designation incorporate land designated as Professional Office and Commercial/Office under the 1995 General Plan Land Use Element, given that there are no material differences between the two designations. The Proposed Project does not include a Fire land use designation, and instead applies the General Commercial designation to the entire parcel containing the Town Centre Village and Los Angeles County Fire Department located at Grand Avenue and Diamond Bar Boulevard. The Proposed Project does not propose the removal or construction of any Fire Department facilities. The Proposed Project also applies specific land use designations to parcels within the five Planning Areas designated under the 1995 General Plan in accordance with the intended uses in each area. In observance of Los Angeles County's designation of the SOI as Significant Ecological Area 15, the new Significant Ecological Area designation is applied to this area. The Proposed Project would retain allowable density ranges specified for land use designations under the 1995 General Plan and 2013 Land Use Element Update.[1] Proposed Project land use changes are shown in Table 2.3-1.

## Residential

- **Rural Residential.** Allows for residential development at densities of 1.0 dwelling unit per gross acre (1 du/ac), with lower density for sites with slopes greater than 25 percent, in accordance with the slope density standard.
- **Low Density Residential.** Allows for single-family detached residential development reaching a maximum of 3.0 dwelling units per gross acre (3.0 du/ac).
- **Low-Medium Residential.** Allows for single-family detached residential development reaching a maximum of 5.0 dwelling units per gross acre (5.0 du/ac).
- **Medium Density Residential.** Allows for townhome, condominium, apartment, mobile home, and other multi-family residential development reaching a maximum of 12.0 dwelling units per gross acre (12.0 du/ac).

[1] The Land Use Element was updated for the sole purpose of adding the High Density Residential-30 designation to implement the Fourth and Fifth Cycle Housing Elements as certified by the California Department of Housing and Community Development (HCD).

- **Medium High Residential.** Allows for townhome, condominium, apartment, and other multi-family residential development reaching a maximum of 16.0 dwelling units per gross acre (16.0 du/ac).
- **High Density Residential.** Allows for high-density condominium, apartment and other high-density residential development reaching a maximum of 20.0 dwelling units per gross acre (20.0 du/ac).
- **High Density Residential-30**. Allows for high-density condominium, apartment, and other high-density residential development with a minimum net density of 20.0 dwelling units per acre (20.0 du/ac) and a maximum net density of 30.0 dwelling units per acre (30.0 du/ac). This applies to Planning Area 5, which was established under a General Plan Amendment and Zone Change to implement the Fourth and Fifth Cycle Housing Elements and was designated RH-30. This land use designation was introduced in the 2013 General Plan Land Use Element Update.

### Commercial, Office, and Industrial

- **General Commercial.** Allows regional, freeway-oriented and/or community retail and service commercial uses. Development is to maintain a floor area ratio (FAR) between 0.25 and 1.0.
- **Office.** Allows for office-based working environments including general, professional, and administrative offices, and supporting commercial, retail, and service uses. Development is to maintain an FAR between 0.25 and 1.0. This land use designation is new and incorporates land designated Commercial/Office and Professional Office under the 1995 General Plan Land Use Element given that there are no material differences between the two designations.
- **Light Industrial.** Allows light industrial uses such as manufacturing, distribution, research and development, business support services, and commercial uses requiring more land area than is available under the General Commercial or Office designations. Development is to maintain an FAR between 0.25 and 1.00.

### Mixed Use

- **Town Center Mixed Use.** Allows and encourages a mix of uses with an emphasis on community-serving and destination retail, dining, and entertainment uses. Offices and professional services, and residential uses are also permitted. Maximum FAR is 1.5, including residential uses, and a maximum residential density of 20.0 dwelling units per acre (20.0 du/ac) is permitted. This land use designation is new.
- **Neighborhood Mixed Use.** Allows a range of housing types and commercial uses, with a maximum FAR of 1.25, including residential uses, and a maximum residential density of 30.0 dwelling units per acre (30.0 du/ac). General Plan policies further delineate permitted

and desired mix of uses and housing types based on parcel size and project location. This land use designation is new.

- **Transit-Oriented Mixed Use.** Allows high density residential live/work units, office, retail, commercial, and service uses, with a maximum FAR of 1.5 combined for residential and non-residential uses. Residential uses, where provided, should be at a density ranging from 20.0 to 30.0 dwelling units per acre (20.0 - 30.0 du/ac) of gross site area. Existing light industrial uses shall be permitted to remain as conforming uses in accordance with the Light Industrial land use designation and associated zoning regulations. This land use designation is new.
- **Community Core Overlay.** The underlying Golf Course designation permits continued operation of the present golf course use. Should the golf course cease operation, this overlay designation would require a master plan for the entire golf course property to ensure the orderly and cohesive implementation of its reuse. This land use designation is new.

### Other

- **Planning Area.** Designed to conserve open space resources and is to be applied to properties where creative approaches are needed to integrate future development with existing natural resources. All proposed development within these designated areas shall require the formation of a Specific Plan pursuant to the provisions of Government Code Section 65450.
- **Specific Plan.** This designation is intended to encourage the innovative use of land resources and development of a variety of housing and other development types, provide a means to coordinate the public and private provision of services and facilities, and address the unique needs of certain lands. It designates large-scale development areas in which residential, commercial, recreational, public facility, and other land uses may be permitted, or large properties (in excess of 10 acres) that are proposed to be annexed into the City, where a specific plan pursuant to the provisions of Government Code Section 65450 shall be required that will protect unique biological and open space resources, create fiscal benefits for the City and enhance its infrastructure, and minimize future adverse impacts to both the human and natural environment of the City and region.
- **Golf Course.** Identifies the Diamond Bar Country Club and Golf Course.
- **Park.** Existing and future public parks.
- **Open Space.** Provides recreational opportunities, preservation of scenic and environmental values, protection of resources (water reclamation and conservation), protection of public safety, and preservation of native plant and animal life, habitats, and ecosystems. This designation includes lands which may have been restricted to open space use by map restriction, deed (dedication conditions, covenant, and/or restriction), by an Open Space Easement pursuant to California Government Code Section 51070 et seq. This designation carries with it a maximum development potential of one single-family unit per

existing parcel, unless construction was previously restricted or prohibited on such properties by the County of Los Angeles.

- **Private Recreation.** Identifies major private recreation facilities. May be applied to lands required to be set aside for recreational use which have not been dedicated to or accepted by a public agency; no development may take place on these lands other than open space uses specifically permitted by the applicable Planned Unit Development and/or deed restrictions.
- **Public Facility.** Identifies land for publicly-owned facilities and institutions serving the needs of the general community, such as schools and educational facilities; government facilities, including public safety facilities; public utilities; and other facilities of a public or quasi-public nature. These uses maintain development standards which do not exceed that of the most restrictive adjacent designation. This land use designation is new.
- **Water.** Identifies publicly-owned water facilities.
- **School.** Identifies school facilities.
- **Significant Ecological Area.** Applied to the SOI in observance of Los Angeles County's designation of this area as Significant Ecological Area 15. The area covered by this designation is outside of the City's jurisdiction. This land use designation is new.

**Table 2.3-1: Land Use Designation Changes**

| *Location* | *1995 Designation* | *Proposed Designation* | *Description of Change* |
|---|---|---|---|
| Brea Canyon Road and Lycoming Street (Change Area 1) | Light Industrial | Transit Oriented Mixed Use | Allow a mix of high-density residential, commercial, office, and industrial uses |
| Walnut Elementary School (Change Area 1) | Light Industrial | School | Designate as School to accurately reflect existing uses |
| Diamond Bar Boulevard between Golden Springs Drive SR 60 (Change Area 2) | General Commercial | Town Center Mixed Use | Allow a mix of commercial, office, and residential use |
| North Diamond Bar Boulevard between Highland Valley and SR-60 Offramps (Change Area 3) | Commercial/Office | Neighborhood Mixed Use | Allow a range of housing types and commercial uses, including residential uses |
| Golf Course (Change Area 4) | Golf Course | Golf Course, Community Core Overlay | Allow continued operation of the present golf course use. Should golf course cease operation, require master plan to ensure cohesive implementation of its reuse |
| Planning Area 2 | Planning Area 2/Specific Plan | Open Space | Designate as Open Space to preserve natural resources and provide recreational opportunities |
| Vantage residential development (Planning Area 3) | Planning Area 3/Specific Plan | Specific Plan | Designate large-scale development area in which residential, commercial, recreational, public facility, and other land uses may be permitted where a specific plan is proposed. Parts of Planning Area 3 have been developed under the Diamond Bar Village Specific Plan |
| Target (Planning Area 3) | Planning Area 3/Specific Plan | General Commercial | Designate as General Commercial to accurately reflect existing uses |
| Golden Springs Drive and Copley Drive (Planning Area 3) | Planning Area 3/Specific Plan | Office | Allow for office-based working environments and supporting commercial, retail, and service uses |

**Table 2.3-1: Land Use Designation Changes**

| *Location* | *1995 Designation* | *Proposed Designation* | *Description of Change* |
|---|---|---|---|
| Planning Area 4 at Brea Canyon Road | Planning Area 4/Specific Plan | Public Facility | Designate for publicly-owned facilities and institutions serving the needs of the general community |
| South Pointe residential community (Planning Area 4) | Planning Area 4/Specific Plan | Specific Plan | Parts of Planning Area 4 have been developed under the South Pointe West Specific Plan as the South Pointe residential community and Larkstone Park. |
| Brea Canyon Road to Larkstone Park (Planning Area 4) | Planning Area 4/Specific Plan | Public Facility | Designate for publicly-owned facilities and institutions serving the needs of the general community |
| Larkstone Park | Planning Area 4/Specific Plan | Park | Designate as Park to accurately reflect existing uses |
| Diamond Canyon Park | Specific Plan | Park | Designate as Park to accurately reflect existing uses |
| Summitridge Park – North | Park | Public Facility | Designate for publicly-owned facilities and institutions serving the needs of the general community |
| Quail Summit Elementary School – South | School | Park | Designate as Park to accurately reflect existing and future uses |
| Golden Prados Drive and Golden Springs Drive | Low Density Residential | Low-Medium Residential | Designate as Low-Medium Residential to accurately reflect existing densities in this area |
| South Brea Canyon Road at Castle Rock | Low Density Residential | Low-Medium Residential | Designate as Low-Medium Residential to accurately reflect existing densities in this area |
| Golden Springs Drive and South Lemon Avenue – West | Low-Medium Residential | Low Density Residential | Designate as Low Density Residential to accurately reflect existing densities in this area |
| Bain Avenue – Southeast | Low-Medium Residential | Low Density Residential | Designate as Low Density Residential to accurately reflect existing densities in this area |
| Brea Canyon Road at Eastbound SR-60 Offramp | Professional Office | General Commercial | Allow for regional, freeway-oriented, and community retail and service commercial uses |
| Brea Canyon Road and Pathfinder Road – East | Professional Office | General Commercial | Allow for regional, freeway-oriented, and community retail and service commercial uses |

**Table 2.3-1: Land Use Designation Changes**

| *Location* | *1995 Designation* | *Proposed Designation* | *Description of Change* |
|---|---|---|---|
| Grand Avenue and Diamond Bar Boulevard – Southeast | Professional Office | General Commercial | Allow for regional, freeway-oriented, and community retail and service commercial uses |
| Montefino Avenue and Diamond Bar Boulevard | Commercial/Office | General Commercial | Allow for regional, freeway-oriented, and community retail and service commercial uses |
| Fire Department Station 21 on Grand Avenue | Fire | Public Facility | Consolidate public facility designations |
| Grand Avenue East of Fire Department | General Commercial | Office | Allow for office-based working environments and supporting commercial, retail, and service uses |
| Grand Avenue West of Fire Department | Professional Office | Office | Allow for office-based working environments and supporting commercial, retail, and service uses |
| Brea Canyon Cutoff Road and Diamond Bar Boulevard – West | Professional Office | Office | Allow for office-based working environments and supporting commercial, retail, and service uses |
| Golden Springs Drive and Grand Avenue – Northeast | Commercial/Office | Office | Allow for office-based working environments and supporting commercial, retail, and service uses |
| Golden Springs Drive and Grand Avenue – Southeast | Professional Office | Office | Allow for office-based working environments and supporting commercial, retail, and service uses |
| Golden Springs Drive and Copley Drive | Professional Office | Office | Allow for office-based working environments and supporting commercial, retail, and service uses |
| Route 57 and Route 60 – Southwest | Commercial/Office | Office | Allow for office-based working environments and supporting commercial, retail, and service uses |
| Brea Canyon Road and Via Sorella | Commercial/Office | Office | Allow for office-based working environments and supporting commercial, retail, and service uses |
| Brea Canyon Road and Pathfinder Road – West | Professional Office | Office | Allow for office-based working environments and supporting commercial, retail, and service uses |

**Table 2.3-1: Land Use Designation Changes**

| *Location* | *1995 Designation* | *Proposed Designation* | *Description of Change* |
|---|---|---|---|
| Route 57 and Pathfinder Road – East | Commercial/Office | Office | Allow for office-based working environments and supporting commercial, retail, and service uses |

*Source: Dyett & Bhatia, 2019.*

## BUILDOUT

Buildout refers to the estimated amount of new development and corresponding growth in population and employment that is projected to take place under the Proposed Project through the horizon year of 2040. Buildout estimates should not be considered a prediction for growth, as the actual amount of development that will occur through 2040 is based on many factors outside of the City's control, including changes in regional real estate and labor markets and the decisions of individual property owners. Therefore, buildout estimates represent one potential set of outcomes rather than definitive figures. Additionally, the designation of a site for a specific land use in the Proposed Project does not guarantee that a site will be developed or redeveloped at the assumed density during the planning period, as future development will rely primarily on each property owner's initiative. Outside of City limits and the SOI, lands remain under the development control of Los Angeles County unless annexed.

For this EIR, buildout projections for 2040 were based on multiple factors as described below.

### Methodology

Buildout is calculated by summing existing development, development that is planned, permitted, or under construction (known as "pipeline development"), and an estimated amount of potential new development in the Planning Area. New development is generally expected to occur in the change areas or in areas identified as "opportunity sites" (sites most likely to develop given parcel size, environmental constraints, and current zoning), as well as on a portion of vacant properties in the City's neighborhoods. The methodology used to calculate buildout for this analysis is summarized below.

#### *Existing Development*

The buildout estimated the existing number of residential units and non-residential square feet "to stay" in 2040. The term "to stay" refers to existing development that is not assumed to redevelop by 2040. All development not located within a change area or opportunity site was assumed "to stay." Estimates of existing development (to stay) were derived from the City's geographic information system (GIS) database as of 2018. The database contains detailed information about land use, the number of residential units on each parcel, and the amount of non-residential square feet on each parcel.

In addition, existing development (to stay) also includes projects currently under construction, approved, or under review by the City's Planning Division as of May 2019. While it is possible that some of these projects may not be constructed, using totals from approved and planned projects

provides the most accurate buildout estimate for vacant parcels. All pipeline projects had been constructed as of May 2019.

*Future Development*

To estimate buildout for the planning horizon, assumptions were made about the density of development in each proposed land use designation, as well as the percentage of parcels that would actually develop depending on location and land use designation. Not all parcels identified as vacant or opportunity sites were assumed to fully develop by the planning horizon year of 2040 in order to reflect more realistic development patterns. The buildout estimate assumes 75 percent development of identified opportunity sites and assumed maximum allowable density under the Proposed Project (as discussed on page 2-18). Future development projected in the City considers potential development on opportunity sites, in the Proposed Project change areas, and on vacant sites designated as residential in the Proposed Project. The buildout estimate represents a reasonable case scenario for purposes of impact analysis in this EIR.

## Residential Buildout

The residential buildout population takes into consideration the population estimated for 2016, as well as additional population associated with housing units projected to be built through the planning horizon. The population projection assumes a standard residential vacancy rate of 5 percent and 3.097 population per occupied unit based on the 2016 population per occupied unit of 3.16 with the percent change projected through 2040 from Southern California Associated Governments (SCAG). Table 2.3-3 describes the projected population at buildout of the Proposed Project and potential residential development resulting from application of land uses shown on the Proposed Project Land Use Diagram (Figure 2.3-1), according to analysis undertaken for the Proposed Project.

**Table 2.3-2: Projected Residential Buildout and Population (2040)**

| | *Existing (2016)* | *Future Development* | *2040 Total* |
|---|---|---|---|
| **Housing Units** | **18,913** | **3,264** | **22,177** |
| Single-Family Residential | 13,252 | 142 | 13,394 |
| Multi-Family Residential | 5,661 | 3,122 | 8,783 |
| **Households** | **18,308** | **3,226** | **22,533** |
| **Population** | **57,853** | **8,832** | **66,685** |

*Source: CA Department of Finance, 1/1/2015; Dyett and Bhatia, 2017; Los Angeles County Assessor, 2014; the 2015 Q2 California Employment Development Department.*

### Non-Residential Buildout

The total number of future jobs was calculated based on jobs-per-square-foot assumptions for retail/restaurant, hotel, and office jobs. Table 2.3-3 describes projected non-residential development in terms of square feet and potential jobs.

**Table 2.3-3: Projected Residential Buildout and Population (2040)**

| | *Existing (2016)* | *Future Development* | *2040 Total* |
|---|---|---|---|
| **Non-Residential (sq ft)** | **5,564,484** | **1,617,583** | **7,182,066** |
| Retail | 586,659 | 607,283 | 1,193,942 |
| Office | 2,406,803 | 519,892 | 2,926,694 |
| Industrial | 1,052,869 | (203,001) | 849,868 |
| Other | 1,518,153 | 693,409 | 2,211,562 |
| **Jobs** | **14,702** | **7,042** | **21,744** |
| Retail | 1,467 | 1,613 | 3,079 |
| Office | 7,334 | 4,102 | 11,436 |
| Industrial | 2,106 | (406) | 1,700 |
| Other | 3,795 | 1,734 | 5,529 |

*Source: CA Department of Finance, 1/1/2015; Dyett and Bhatia, 2017; Los Angeles County Assessor, 2014; the 2015 Q2 California Employment Development Department.*

## 2.4 Climate Action Plan

### PLANNING PROCESS

The proposed CAP reflects the City's commitment to the core values presented in the proposed General Plan, and links elements of the plan with the goal of GHG reduction. The CAP was prepared in 2019 by City staff and consultants, using public input from the General Plan update process and referencing CEQA Guidelines, the California Air Resources Board (CARB) 2017 Scoping Plan, and State GHG targets established by EO S-3-05 and AB 32. Drafting of the proposed CAP involved the development of an emissions inventory describing direct GHG emissions from sources within the city, as well as indirect emissions associated with the consumption of energy generated outside of the city, using modeling tools, activity data, and emissions factors. Forecasts were conducted for GHG emissions through 2040 to determine whether, with State and federal actions and the policies of the proposed General Plan, additional action would be required in order to ensure that the City meets GHG reduction targets.

## ORGANIZATION

The proposed CAP includes the following four chapters:

1. **Introduction.** This chapter describes the scope and purpose of the proposed CAP, provides an overview of climate change and GHGs, introduces the California GHG reduction legal framework and State and federal standards on GHG emissions, and describes the planning process and how the plan is intended to be used.
1. **Emissions Inventory.** This chapter identifies the major sources and the overall magnitude of GHG emissions in Diamond Bar, pursuant to Sections 15183.5(b)(1)(A) and 15183.5(b)(1)(C) of the state CEQA Guidelines.
2. **Greenhouse Gas Reduction Targets and Forecasts**. This chapter describes the GHG reduction targets provided by State law, provides a baseline forecast of GHG emissions, and models forecasts of future GHG emissions through 2040. The chapter also quantifies GHG reductions from (1) State actions and (2) the updated General Plan policies and actions, and applies these reductions to the emissions forecast.
3. **Monitoring Progress and Potential Additional Measures.** This chapter describes steps to monitor progress, as well as potential additional measures that can be taken in the future should the City so desire.

## PROPOSED CAP MEASURES

### Monitoring Progress

The proposed CAP forecast analysis shows that projected GHG emissions in 2030 and in 2040 will be well below the standards established in CARB's 2017 Scoping Plan. Thus, additional GHG reduction actions are not needed for Diamond Bar to have and maintain a Qualified GHG Reduction Strategy. Therefore, the proposed CAP provides a framework for the City of Diamond Bar to monitor progress toward GHG emissions and continue to meet emissions targets. Monitoring would enable the City to make timely adjustments to existing policies, replace ineffective actions, and/or add new policies as changes in technology, federal and State programs, or other circumstances warrant. The monitoring framework consists of the following two steps:

- **Monitoring and Reporting.** The City will periodically monitor and report on progress towards achieving the emissions targets, potentially every five years, unless otherwise required more frequently by State law. The monitoring report will include information on the status of the federal and State level emissions reductions measures identified in Chapter 3 of the CAP, as well as any new efforts that may emerge in the reporting year. The report will be presented to the City Council at a public meeting during which interested parties may comment on the report.
- **Updating GHG Inventory and the CAP.** The City will update the GHG inventory periodically. For continuity, the inventory updates will tally emissions from the same sectors analyzed in Chapter 2 of this CAP. If an updated inventory reveals that Diamond Bar is not making adequate progress toward meeting the GHG target, or that new technologies and programs emerge that warrant inclusion in the CAP, the City will adjust the CAP by modifying, adding, and/or replacing policies in the General Plan or elsewhere, or by incorporating additional measure(s) outlined in Section 4.2 of the CAP.

### Optional Measures to Further Reduce Emissions

Additional measures are offered as a menu of choices should the City decide to more aggressively target GHG emissions at a future date. Measures are optional, and could be undertaken independently or collectively.

- **Measure A:** Promote Installation of Residential Photovoltaic (PV) Systems.
- **Measure B:** Promote Installation of Commercial PV Systems.
- **Measure C:** Encourage Residential Energy Efficiency Retrofits.
- **Measure D:** Encourage Commercial Efficiency Retrofits.
- **Measure E:** Promote Switching from Natural Gas to Clean Electricity.
- **Measure F:** Promote an Increase in the Amount of Zero-Emissions Vehicle Travel.
- **Measure G:** Establish a Zero-Waste Framework.
- **Measure H:** Promote and Maximize Utility Clean Energy Offerings.

## 2.5 Proposed Project Implementation

The City would use a variety of regulatory mechanisms and administrative procedures to implement the Proposed Project. Under California law, Diamond Bar is required to ensure that its Zoning Ordinance is consistent with the General Plan. In fact, the consistency requirement is the keystone of General Plan implementation. Without a consistency requirement, there is no assurance that proposed General Plan policies broadly related to land use would be implemented.

### Zoning Ordinance

The City's Zoning Ordinance translates General Plan policies into specific use regulations, development standards, and performance criteria that govern development on individual properties. The General Plan establishes the policy framework, while the Zoning Ordinance prescribes standards, rules, and procedures for development. The Zoning Map provides more detail regarding the desired location of specific uses than the General Plan Land Use Diagram. As noted above, the current Zoning Ordinance will be revised to implement the new land use provisions of the Proposed Project, if the Proposed Project is adopted.

### Specific Plans

The proposed General Plan states that existing specific plans, including the Diamond Bar Village Specific Plan, the South Pointe West Specific Plan, and the Site D Specific Plan, are required to be consistent with General Plan and are therefore incorporated by reference.

### Other Plans and Regulatory Items

Other plans and regulatory items specified in the proposed General Plan that will require updates to comply with the proposed General Plan include the Parks and Recreation Master Plan, Neighborhood Traffic Management Program, Sewer System Management Plan, Economic Development Action Plan, and City of Diamond Bar Design Guidelines. In addition, the proposed

General Plan calls for the development or potential development of several plans and regulatory items as follows:

- Curbside Management Guidelines
- Recreational Trails and Bicycle Route Master Plan
- City street design standards
- Design guidelines for designated truck routes
- Landscape Manual
- Regional Transportation Plan/Sustainable Communities Strategy
- Recycled water expansion plan in collaboration with Walnut Valley Water District
- Drainage Master Plan in collaboration with Los Angeles County Flood Control District
- Hazard Mitigation Plan in collaboration with Los Angeles County Fire Department
- Communications infrastructure network improvement and expansion plan
- Planting requirements and species guidelines.

# 3 Environmental Settings and Impacts

## Overview

Chapter 3 includes information related to existing conditions for each issue area, method of analysis, summary of impacts, and detailed analyses of the type and magnitude of individual and/or cumulative environmental impacts, and, as applicable, mitigation measures. Sections 3.1 through 3.13 analyze the potential environmental impacts that may occur as a result of implementation of the Proposed Project, as described in Chapter 2. The environmental issues subject to detailed analysis in the following sections include those that were identified by the City as potentially significant:

3.1 Aesthetics
3.2 Air Quality
3.3 Biological Resources
3.4 Cultural, Historic, and Tribal Cultural Resources
3.5 Energy, Climate Change, and Greenhouse Gases
3.6 Geology, Soils, Seismicity, and Paleontology
3.7 Hazards, Hazardous Materials, and Wildfire
3.8 Hydrology and Water Quality
3.9 Land Use and Housing
3.10 Noise
3.11 Public Facilities and Recreation
3.12 Transportation
3.13 Utilities and Service Systems

These assessments do not satisfy the need for project-level CEQA analysis for individual projects. Consistent with Section 15168 of CEQA Guidelines, this program EIR evaluates the broad policy direction of the planning documents, but does not examine the potential site-specific impacts of individual projects that may be proposed in the future that are consistent with the plan. Program EIRs play a key role in a "tiered" CEQA analysis. Individual projects under the Proposed Project will require project-level analysis at the time they are proposed based on the details of those projects and the existing conditions at the time such projects are pursued.

Environmental topics that were determined not to be potentially significant are addressed in Chapter 5 (Section 5.5).

# Impacts Considered

According to the CEQA Guidelines, the following general types of environmental impacts must be considered in this program EIR:

- **Direct or primary impacts,** which are caused by the project and occur at the same time and place as the project.
- **Indirect or secondary impacts,** which are caused by the project and occur later in time or farther removed in distance, but are still reasonably foreseeable. Indirect or secondary impacts may include growth-inducing impacts and other impacts related to induced changes in the pattern of land use, population density, or growth rate, and related impacts on air and water and other natural systems, including ecosystems. Indirect or secondary impacts may also include cumulative impacts.
- **Short-term impacts,** which are those of a limited duration, such as the impacts that would occur during the construction phase of a project.
- **Long-term impacts,** which are those of greater duration, including those that would endure for the life of a project and beyond.
- **Significant unavoidable impacts,** which cannot be mitigated to a level that is less than significant.
- **Irreversible environmental changes,** which may include current or future irretrievable commitments to using non-renewable resources, or growth-inducing impacts that commit future generations to similar irretrievable commitments of resources. Such changes are addressed in Chapter 5: CEQA Required Conclusions.
- **Cumulative impacts,** which include two or more individual impacts that when considered together are considerable or which compound or increase other adverse environmental effects. The individual impacts may be changes resulting from a single project or a program of projects. The cumulative effect from several projects is the change in the environment that results from the incremental effect of the Proposed Project when added to other closely related past, present, and reasonably foreseeable future projects. Cumulative impacts can result from individually minor, but collectively significant, projects taking place over a period of time. Cumulative impacts are addressed in Chapter 5: CEQA Required Conclusions.

# Organization

Each section of this chapter is formatted to include a summary of existing conditions, including regulatory context; the criteria for determination of significance for each impact; evaluation of potential project impacts; a mitigation framework, if applicable; and a conclusion of significance after mitigation for impacts identified as significant.

The Proposed Project incorporates several goals, policies and programs that require the Proposed Project to be implemented in a manner that avoids or reduces impacts. Such goals, policies and programs are documented within each Impact Analysis section within this chapter.

## PHYSICAL SETTING

This subsection provides relevant information about the existing physical environment related to the particular environmental topic. In accordance with Section 15125 of the CEQA Guidelines, the discussion of the physical environment describes existing conditions within the planning area at the time the NOP was filed on May 31, 2018, unless otherwise noted. CEQA Guidelines require that special emphasis be placed on environmental resources that are rare or unique to the region and that would be affected by the Proposed Project. The existing conditions serve as the baseline for the analysis of potential program-level environmental impacts that would result from implementation of the proposed Plan.

## REGULATORY SETTING

This subsection describes federal, State, regional, and local plans, policies, regulations, and laws that may apply to the environmental topic under evaluation.

## RELEVANT PROPOSED GOALS, POLICIES, AND IMPLEMENTATION PROGRAMS

If applicable, relevant Proposed Project goals, policies, and implementation programs that would reduce potential impacts are summarized and are referenced under individual impact discussions in the Impact Analysis.

## IMPACT ANALYSIS

This subsection focuses on an analysis of the potential environmental impacts of the Proposed Project described in Chapter 2: Project Description, of this EIR. The impact analysis in this EIR assumes implementation of the proposed Plan through 2040 and does not include an analysis of interim development phases; the potential impacts of such projects can only be known when they are proposed at some point in the future. All potential direct and indirect impacts in Chapter 3 are evaluated in relation to applicable City, State, and federal standards. Consistent with CEQA requirements for General Plan EIRs, the programmatic environmental analysis examines construction and operational impacts of entire General Plan buildout rather than examining individual projects that may occur. Thresholds of significance based on Appendix G of the CEQA Guidelines are used to identify the potential environmental impacts of the Proposed Project; the methods used to conduct the impact analysis are summarized; and the impacts analyzed in the respective sub-section are summarized. Following this is a more in-depth analysis of the potential environmental impacts, divided by impact significance criterion, presented in the following format:

**Impact 3.X-X** **The impact statement briefly summarizes the findings of the impact discussion based on the identified threshold of significance. The level of significance is included at the end of the impact statement. Levels of significance listed in this EIR (as described below) are no impact, less than significant, less than significant with mitigation, or significant and unavoidable.**

The impact discussion is contained in the paragraphs following the impact statement. The analysis compares implementation of the Proposed Project to existing conditions. In addition, the effects of policies in the Proposed Project that will reduce the impacts are discussed.

*Mitigation Measures*

If the impact is determined to be less than significant, no mitigation measures are required. Where a significant impact is identified, any feasible mitigation measures that could reduce an impact to less than significant is provided. Where no mitigation measures have been identified that could reduce an impact to less than significant, no mitigation measures are listed.

As stated in CEQA Guidelines Section 15370, mitigation includes:

1. Avoiding the impact altogether by not taking a certain action or parts of an action.
2. Minimizing impacts by limiting the degree or magnitude of the action and its implementation.
3. Rectifying the impact by repairing, rehabilitating, or restoring the impacted environment.
4. Reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action.
5. Compensating for the impact by replacing or providing substitute resources or environments.

In general, subsequent projects that qualify for an exemption pursuant to CEQA are not subject to the mitigation measures identified in this document. For example, the installation of a residential swimming pool, which is Categorically Exempt under CEQA Guidelines Section 15303, would not be subject to archaeological monitoring unless evidence exists that would necessitate an exception to that exemption.

# Determining Level of Significance

For each potential environmental impact identified in this EIR, a statement of the level of significance of the impact is provided. Impacts are assessed as one of the following categories:

- The term “no impact” is used when the environmental resource being discussed would not be adversely affected by implementation of the Proposed Project. It means no change from existing conditions. This impact level does not need mitigation.
- A “less than significant” impact would cause a minor change in the physical environment, but the impact would not meet or exceed the significance threshold. This impact level does not require mitigation, even if feasible, under CEQA.
- An impact that is “less than significant with mitigation” would have a substantial adverse effect on the physical environment but can be reduced to a less than significant level with mitigation. Under CEQA, mitigation measures must be provided, where feasible, to reduce the magnitude of significant or potentially significant impacts.

- An impact that is "significant and unavoidable" would cause a substantial adverse change in the environment, and no known feasible mitigation measures are available to reduce the impact to a less than significant level. Under CEQA, a project with significant and unavoidable impacts may be approved, but the lead agency (in this case, the City) must prepare a "statement of overriding considerations" in accordance with Section 15093 of the CEQA Guidelines, explaining how the benefits of the project outweigh the potential for significant impacts.

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# 3.1 Aesthetics

This section assesses potential local and regional impacts on aesthetics from future development under the Proposed Project, including those related to scenic vistas, scenic resources, visual character, and light and glare. The section provides context regarding the Planning Area's existing visual character and scenic resources, as well as relevant federal, State, and local regulations and programs.

There was one comment on the Notice of Preparation (NOP) regarding topics covered in this section. Hills for Everyone requested that the EIR address how the Proposed Project will align with the community's design, address design guidelines, handle tree removal and aesthetic impacts, maintain scenic vistas and resources, reduce night lighting in wild areas, and retain visual character and charm of the existing community. Three additional comments on the NOP mentioned tree protection and removal; however, this topic is covered more fully in Section 3.3: Biological Resources.

## Environmental Setting

### PHYSICAL SETTING

#### Visual Character Overview

Diamond Bar's commercial and residential development is perched upon a landscape of rolling hills and valleys. Similar to other bedroom communities in the area, most residential streets in Diamond Bar are curvilinear. Street patterns in Diamond Bar are predominantly determined by topography, with streets conforming to the contours of the terrain. In particularly steep areas such as in The Country Estates, development is concentrated only on the peaks of the hills and along ridgelines. Street patterns in flatter residential areas also conform to the slope of the terrain, but streets and a larger number of homes are clustered together owing to the relative flatness of the topography.

Due to the distinctive street patterns of individual neighborhoods, similarity of housing typologies, and the lack of connections to other neighborhoods, the neighborhood unit contributes significantly to the identification and feeling of place in Diamond Bar.

As Diamond Bar is primarily residential, commercial uses are limited to small clusters and are concentrated around intersections of greater street hierarchy. Land uses tend to be separated, and are easiest to access via automobile. Shopping centers and office parks are suburban in character, meaning buildings tend to be set far back from the street, are primarily auto-oriented, and consist

of almost exclusively commercial land uses. Commercial facilities are predominantly located on four- to six-lane arterial streets, spanning about 100 feet across. Storefronts generally face towards inner parking lots rather than the street. Heights in commercial areas are limited to 35 feet, though most retail facilities are one story tall. Owing to these characteristics—a dispersed system of shopping clusters oriented towards customers arriving via automobile—Diamond Bar lacks a traditional "downtown."'

City placemaking and iconography tell the story of Diamond Bar's origins as a ranch. The Windmill, the oldest community landmark, is situated in front of the Diamond Bar Towne Center. Recent streetscape improvements near the intersection of Diamond Bar Boulevard and Grand Avenue—including native landscaping, diamond-patterned pedestrian crossings, and decorative ranch-style rail and post features—provide visual reminders of the city's early history. City entry points near the intersections of Longview Drive and Grand Avenue, Diamond Bar Boulevard and Temple Avenue, and Golden Springs Drive and Calbourne Drive are marked with large and visually attractive entry monuments welcoming visitors to Diamond Bar. A city entry landmark, featuring cattle sculptures and a stylized recreation of the original Diamond Bar Ranch gateway, is located at Diamond Canyon Park, near the intersection of Diamond Bar Boulevard and Brea Canyon Road. These features are part of a unified streetscape design theme intended to be established throughout Diamond Bar. City entry points at Brea Canyon Cutoff Road and Grand at Golden Springs will be improved over time with features that follow the current streetscape theme and palette.

South of Diamond Bar within the Sphere of Influence, land is devoted exclusively to vacant areas and parks and open spaces. This land is designated as a Significant Ecological Area and contains rare riparian, valley grassland, coastal sage scrub and walnut woodland ecosystems. Trails located in this area may reach elevations between 600 and 1,400 feet and offer panoramic views of surrounding open space, the City of Diamond Bar, and surrounding counties.

## Scenic Resources and Vistas

### *Open Spaces and Vacant Natural Areas*

Both publicly-owned and privately-owned natural areas and open spaces, including ridges and hillsides, are some of the most defining and integral components of the city's form and structure. Some of the Planning Area's open space is available for recreational use, including open space that accommodates trails such as the Summitridge Trail. Parts of the Sphere of Influence, including trails within Tonner Canyon and the Firestone Scout Reservation, are also open space that is available for recreational use. Views of open space from various points within the Planning Area range from the distant San Gabriel mountain range, to the steep vegetated landforms of the ridges and hillsides dominated by natural and naturalized plant communities.

### *Scenic Corridors*

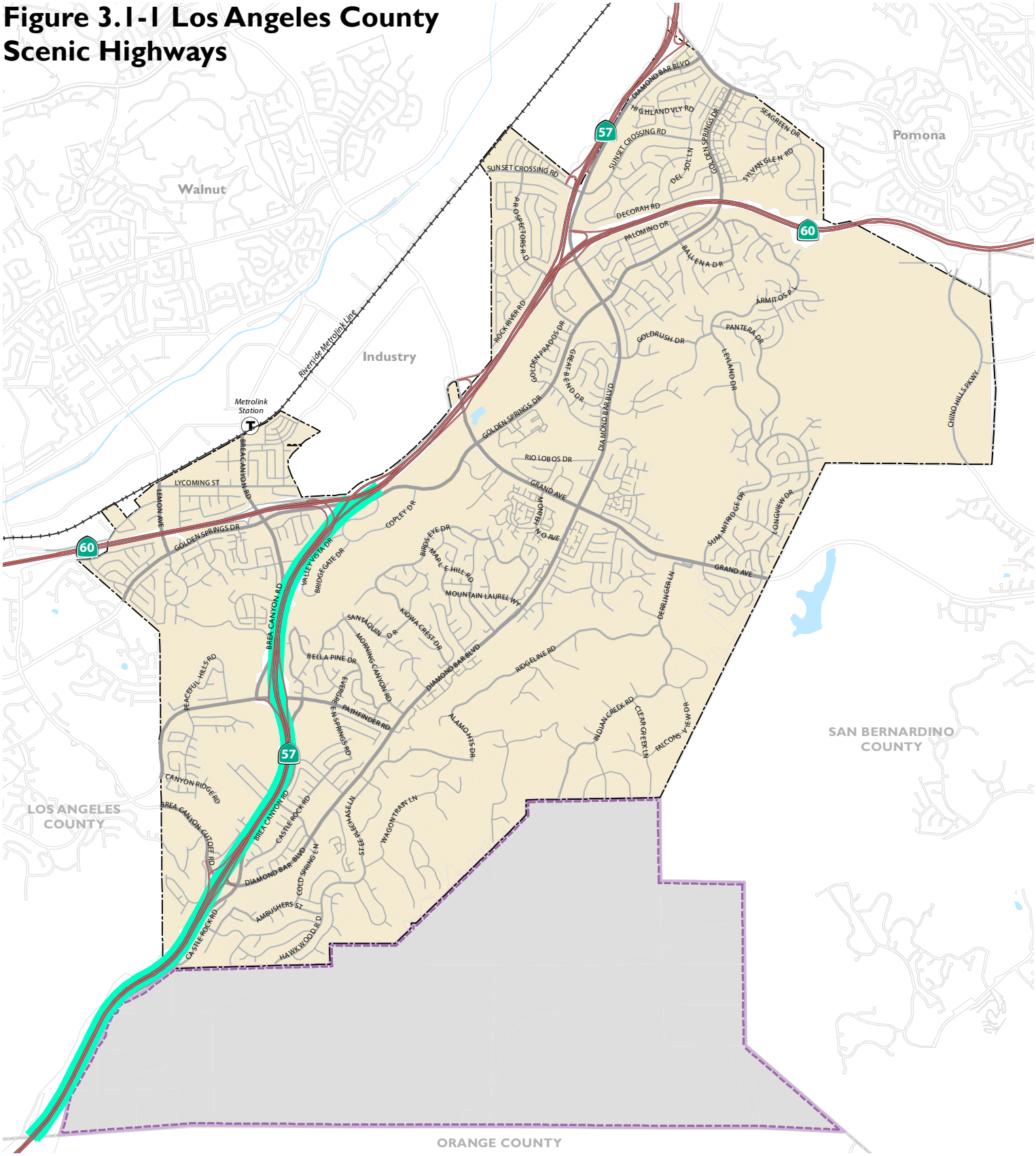
Diamond Bar's circulation network offers dramatic views of natural scenery. Views of the distant San Gabriel range and of local hillsides are offered from myriad roadways and trails within the Planning Area, including from Grand Avenue east of South Diamond Bar Boulevard and from North Diamond Bar Boulevard north of SR-60.

While there are no State or County Scenic Highways in the vicinity of the Planning Area, the southeasternmost portion of the SR-57 within Diamond Bar is included on the Caltrans list of eligible scenic highways (California Department of Transportation, 2011) as shown on Figure 3.1-1. SR-57 features views of the San Gabriel range. The application to nominate eligible scenic highways for official designation requires the preparation of a visual assessment and Scenic Highway Proposal, which has not yet been completed.

## Light and Glare

Light and glare sources within the Planning Area are primarily associated with residential, commercial, and industrial land uses. In commercial and industrial areas, signage and cars in parking lots may produce light. The light and glare that exist in these developed areas of the city are typical for an urban setting.

# Figure 3.1-1 Los Angeles County Scenic Highways




*Source: City of Diamond Bar 2019; Dyett & Bhatia, 2019*

# REGULATORY SETTING

## State Regulations

### *California Scenic Highways Program*

Recognizing the value of scenic areas and the value of views from roads in such areas, the California State Legislature established the California Scenic Highway Program in 1963. This legislation sees scenic highways as "a vital part of the all-encompassing effort…to protect and enhance California's beauty, amenity and quality of life." Under this program, a number of State highways have been designated as eligible for inclusion as scenic routes. An eligible highway may change to an officially designated highway when the local jurisdiction adopts a scenic corridor protection program, applies to the California Department of Transportation for scenic highway approval, and receives notification from Caltrans that the highway has been designated as a Scenic Highway. Part of State Route 57 in Diamond Bar is included on the Caltrans list of eligible scenic highways.

## Local Regulations

### *Diamond Bar Municipal Code (DBMC) Sections 22.16.050 (Exterior Lighting) and 22.30.070 (Off-Street Parking and Loading Standards)*

DBMC Section 22.16.050 limits exterior lighting levels and requires shielding to reduce light spillage (glare) from nonresidential properties so that the light sources are not directly visible from any point five feet or more beyond parcel boundaries of such properties.

Section 22.30.070 prohibits parking lot lighting spillover beyond property lines and requires lighting fixtures in parking areas to have 90-degree horizontal cut-off flat lenses.

### *DBMC Section 22.16.130 (View Protection)*

DBMC Section 22.16.130 addresses the protection of views belonging to existing residential uses. Views are defined as “a vista of significant features, including mountains, ridges, hillside terrain, canyons, geologic features, and community amenities (e.g., parks, landmarks, permanent open space),” noting that the term does not mean an unobstructed panorama of these features. View protection measures alluded to in this section of the City Code include creating view corridors and reducing heights of new development.

### *Diamond Bar City Code Chapter 22.22 (Hillside Management)*

Chapter 22.22 addresses the management of hillside development in Diamond Bar, including the protection of views and view corridors to and from hillside areas. This Chapter ensures development on or near topographic features relates to surrounding topography, and will not disrupt scenic views due to the design or its location.

### *City of Diamond Bar Citywide Design Guidelines*

Pursuant to Section 22.16.130 of the City Diamond Bar City Code, when reviewing projects with potential view blockage impacts, the council, commission, or director shall refer to the view protection guidelines in the "city-wide design guidelines".

These guidelines are intended to provide design professionals, property owners, residents, staff, and decision makers with a clear and common understanding of the City's expectations for the planning, design, and review of development proposals. The guidelines contain view protection provisions that address the definition of important view elements, and building siting, building design, bulk and massing, and landscaping as it relates to view protection.

### *Los Angeles County General Plan*

The Los Angeles County General Plan applies to unincorporated areas in Los Angeles County, including the SOI. The Los Angeles County General Plan Land Use Element outlines the County's Special Management Areas, or areas requiring additional development regulations to prevent the loss of life and property, and to protect the natural environment and important resources. Scenic Resources in the unincorporated areas of the County are regulated by Hillside Management Area (HMA) policies as well as the corresponding HMA Ordinance, which is discussed below.

In addition to HMAs, the General Plan protects ridgelines, scenic viewsheds, and areas along scenic highways. Scenic resources are addressed in greater detail in the Conservation and Natural Resources Element, which seeks to guide the long-term conservation of natural resources and preservation of available open space areas. Specific Scenic Resources policies include protecting ridgelines from incompatible development, encouraging development with a visual relationship to surrounding terrain and vegetation, and prohibiting outdoor advertising and billboards along scenic routes, corridors and other scenic areas.

### *Los Angeles County Code of Ordinances*

The Los Angeles County Code of Ordinances applies to unincorporated areas in Los Angeles County, including the SOI. The Los Angeles County Code of Ordinances addresses development regulations that pertain to Special Management Areas, including Hillside Management Areas and Significant Ecological Areas. The Los Angeles County Code of Ordinances applies to all unincorporated land within the Planning Area.

#### Hillside Management Ordinance

The HMA Ordinance, which was adopted by the Los Angeles County Board of Supervisors on October 6, 2015, allows clustering development at the base of the slope, limits grading, and ensures that the drainage configuration remains as natural as possible and will not adversely impact offsite property. The County defines HMAs as mountainous or foothill terrain with a natural slope of 25 percent or greater. A significant portion of Diamond Bar's Sphere of Influence is an HMA, as are hillsides within the City, as indicated on Figure 3.1-2.

### Hillside Design Guidelines

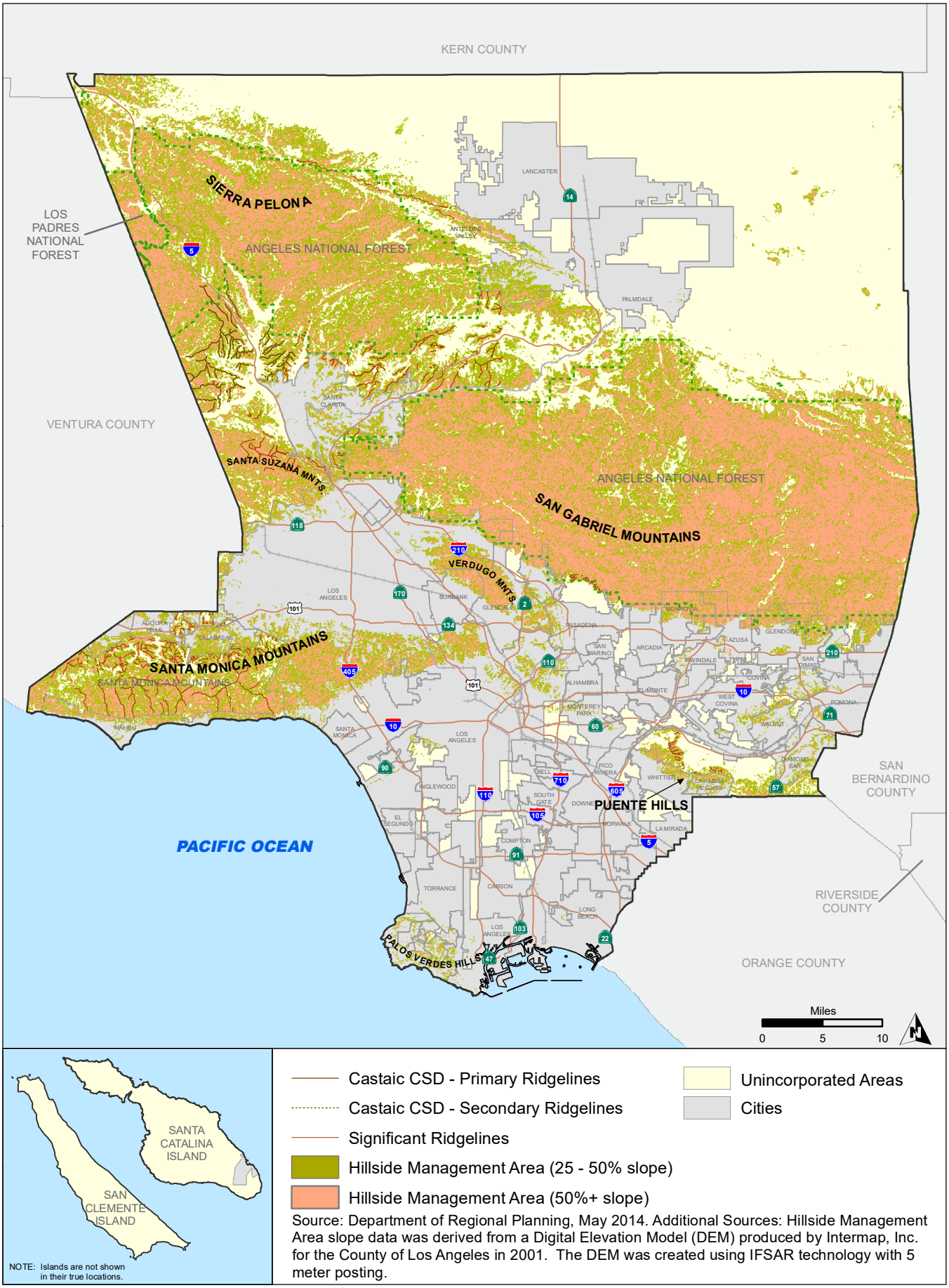
Hillside Design Guidelines apply to all development in HMAs in Los Angeles County, unless exempted under the Ordinance's provisions. In hillside areas with less than 25% slope, use of the Guidelines is optional but encouraged.

The Guidelines include specific and measurable design techniques that can be applied to residential, commercial, industrial, and other types of projects. The Guidelines seek to minimize hillside alteration, conserve ridgeline silhouettes, determine traffic circulation and building placement by topography, and incorporate trails where appropriate.

### Significant Ecological Areas Ordinance Update

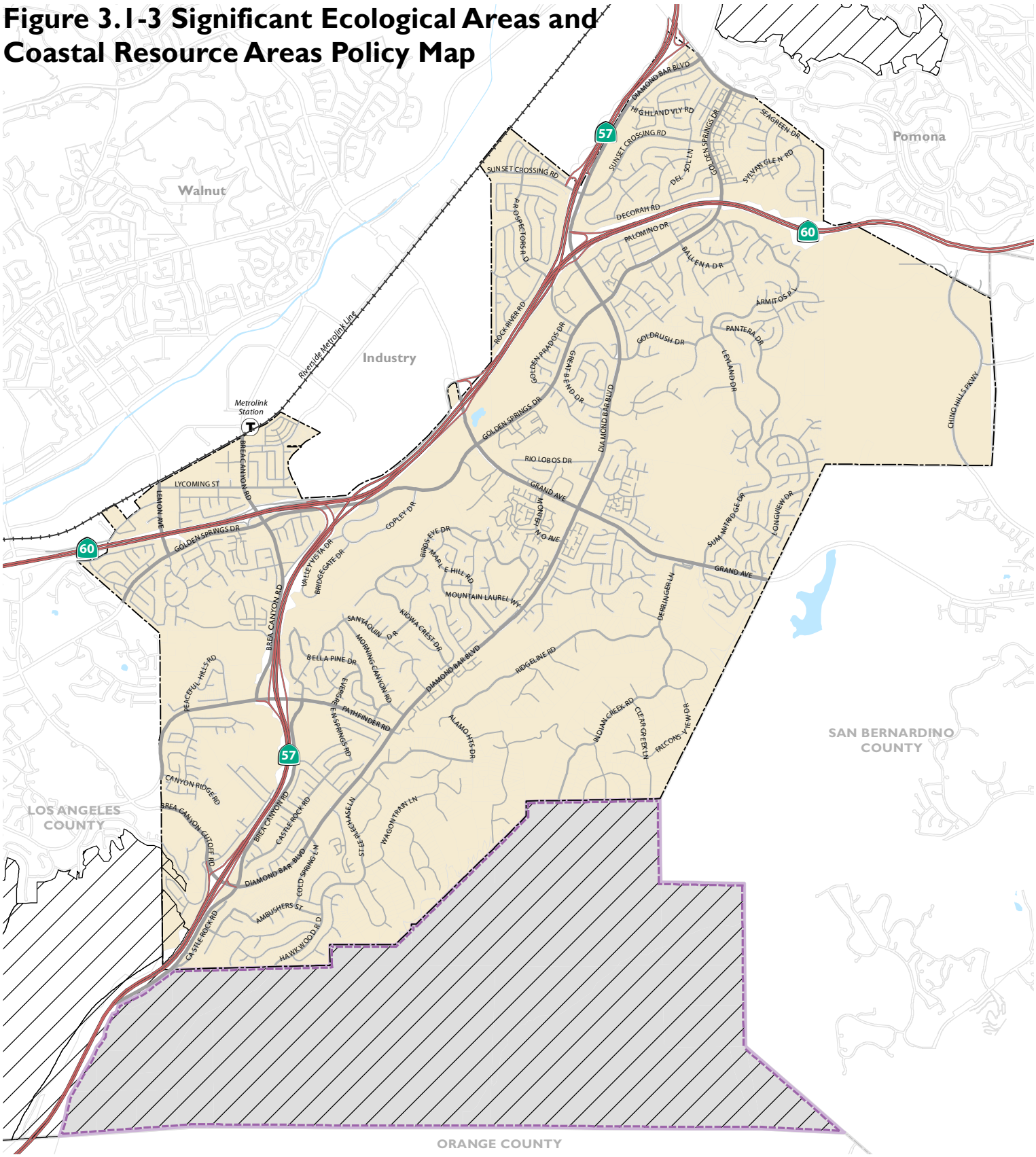
The County is also in the midst of updating its Significant Ecological Areas Ordinance (as of May of 2019). Significant Ecological Areas (SEAs) include land that is identified to hold important biological resources representing the wide-ranging biodiversity of the County, based on the criteria for SEA designation established by the General Plan and as mapped in the SEA Policy Map (Figure 3.1-3). As shown on this map, all of Diamond Bar's Sphere of Influence is considered an SEA. The SEA Ordinance establishes regulations to conserve the unique biological and physical diversity of the natural communities within Significant Ecological Areas (SEA) by requiring development to be designed to avoid and minimize impacts on SEA Resources. The regulation of development in SEAs also seeks to preserve scenic resources.

# Figure 3.1-2 Los Angeles County Hillside Management Areas and Ridgeline Management Map




*Source: Dyett & Bhatia, 2019*

# Figure 3.1-3 Significant Ecological Areas and Coastal Resource Areas Policy Map




Significant Ecological Area
Highways
Ramps
Major Roads
Local Roads
Railroads
Water Features
City of Diamond Bar
Sphere of Influence
County Boundary

0 0.375 0.75 1.5
MILES

*Source: City of Diamond Bar 2019; Dyett & Bhatia, 2019*

# Impact Analysis

## SIGNIFICANCE CRITERIA

For the purposes of this EIR, a significant adverse impact would occur if implementation of the Proposed Project would:

**Criterion 1:** **Have a substantial adverse effect on a scenic vista;**

**Criterion 2:** **Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway;**

**Criterion 3:** **In a non-urbanized area, substantially degrade the existing visual character or quality of public views of the site and its surroundings, or in an urbanized area, conflict with applicable zoning and other regulations governing scenic quality; or**

**Criterion 4:** **Create a new source of substantial light or glare that would adversely affect day or nighttime views in the area.**

## METHODOLOGY AND ASSUMPTIONS

Aesthetics and visual resources are generally subjective by nature, and therefore the level of the Proposed Project's visual impact is difficult to quantify. As such, this analysis was conducted qualitatively, assessing potential implications of implementation of the proposed General Plan update on the existing visual character and scenic quality of the Planning Area. The proposed CAP does not include any land use changes or other measures that would affect scenic vistas, scenic corridors, or light and glare, and would therefore have no impact in any of the impact topics discussed below.

## IMPACTS

### Impact 3.1-1 Implementation of the Proposed Project would not have a substantial adverse effect on a scenic vista. (*Less than Significant*)

Scenic vistas in the Planning Area consist of those afforded from the circulation network as well as of and from open spaces, local hillsides and ridges, and distant views of the San Gabriel Mountain Range. The proposed General Plan would continue to regulate development in these areas, and contains policies to ensure that opportunities to enjoy scenic views are either preserved or enhanced. Thus, as discussed below, substantial adverse effects are not expected to occur.

The proposed General Plan introduces land use changes throughout the city. In the majority of cases, the land use change sites are located in or near already developed areas and coincide with areas designated for development under the existing General Plan. By focusing development in infill areas, the proposed General Plan relieves pressure to develop in open space and agricultural

areas while filling visual gaps in existing neighborhoods. This allows for the preservation of open space views and the enhancement of urban views. There are some land use changes in the hillsides and vacant natural areas, but these land use changes support the preservation of open spaces by designating areas formerly designated as Planning Areas or Low Density Residential as Open Space.

As stated below, the Proposed Project also includes several policies pertaining to preserving the unique visual qualities of the Planning Area's natural environment, including open space, hillsides, and vegetation. There are also policies to preserve these natural features, and consequently their scenic qualities. Policies include context-specific design of new development and limiting development in hillside areas. Individual development projects will still be subject to development and planning review, and must therefore conform to zoning and other ordinances regarding aesthetic qualities such as lighting, signage, landscaping, and building setbacks.

Due to the focus on infill development in the proposed General Plan, and policies that ensure that new development will have minimal impact on open spaces and other scenic resources, the Proposed Project will have a less than significant impact on the city's scenic vistas.

*Proposed General Plan Policies that Address the Impact*

<u>Land Use & Economic Development</u>

LU-G-1. Maintain a balanced mix of land uses, including employment, residential, retail, and open space, including open space devoted to the preservation of natural resources, to support a vibrant community and Diamond Bar's quality of life.

LU-G-2. Encourage compact growth and prioritize infill development to preserve existing large blocks of open space within the City and Sphere of Influence including Tonner Canyon and the Tres Hermanos Ranch; enhance community character, optimize city infrastructure investments, provide pedestrian- and bicycle-friendly neighborhoods, and enhance economic vitality.

LU-G-28. Preserve open space, ridgelines, and hillsides to protect the visual character of the city, provide for public outdoor recreation, conserve natural resources, support groundwater recharge, protect existing and planned wildlife corridors, and ensure public safety.

LU-P-2. Allow clustering or transferring of all or part of the development potential of a site to a portion of the site to protect significant environmental resources such as vegetated habitats, sensitive species, wildlife movement corridors, water features, and geological features within proposed developments as open space if the developer takes action to preserve the open space in perpetuity.

LU-P-8. Require that new residential development be compatible with the prevailing character of the surrounding neighborhood in terms of building scale, density, massing, and design. Where the General Plan designates higher densities, require adequate transitions to existing development.

LU-I-55. Preserve publicly-owned, undeveloped hillsides, as well as privately-owned hillsides with an Open Space General Plan designation, as natural open space in perpetuity. On privately-owned property which has a residential land use designation, preserve hillsides as natural open space through Diamond Bar's Hillside Management Ordinance by allowing residential development only at the permitted densities and where development would not detract from the protection and overall perception of the hillsides as natural topographic and ecological features, or negatively impact public safety or welfare.

LU-I-56. Ensure that development on privately-owned, residentially designated land in hillside areas is compatible with surrounding natural areas by requiring that development:

c. Minimizes—as articulated by the landform grading criteria of the Hillside Management Ordinance—excavation, grading, and earthwork to retain natural vegetation and topography;
d. Preserves existing vistas of significant hillside features such as ridgelines, particularly from public places;
e. Does not create unsafe conditions;
f. Incorporates and is sensitive to natural contours and land forms in its site design, including hydrological features;
g. Preserves natural watersheds, including existing vegetation within undeveloped hillside areas to the maximum extent feasible, including mature trees and native plant materials;
h. Permits fuel modification as part of the Fire District's approved fuel modification program;
i. Utilizes planting palettes consisting of drought tolerant, fire resistant, plants with colors similar to those of native materials in the surrounding area; and
j. Groups plants within swale areas to more closely reflect natural conditions within landform graded slopes.

<u>Community Character & Placemaking</u>

CC-G-1. Foster and maintain a distinctive city identity that values the community's "country living" character by preserving the city's open spaces, physical features, and environmental resources, and focusing new development into accessible, pedestrian-oriented areas integrated with existing neighborhoods, augmented with parks, and connected by an attractive and safe street network.

CC-G-4. Preserve the scale and character of existing residential neighborhoods and ensure sensitive transitions between densities and uses.

CC-P-12. Develop and enforce private slope maintenance standards for properties with rear descending slopes that face public streets, with special emphasis on those along Grand Avenue, Diamond Bar Boulevard, Golden Springs Drive, Pathfinder Road, and the freeways.

CC-P-30. Ensure that infill residential development is designed to be sensitive to the scale, character, and identity of adjacent existing development.

CC-P-35. Ensure the protection of views of hillsides and ridges from public streets, parks, trails, and community facilities by requiring a visual impact analysis for new development that identifies potential impacts to visual resources as well as feasible measures to mitigate any potential impacts.

Resource Conservation

RC-G-1. Create and maintain a balanced open space system that will preserve scenic beauty and community identity, protect important biological resources, provide open space for outdoor recreation and the enjoyment of nature, conserve natural resources, and ensure public health and safety.

RC-G-2. Seek to link the various elements of the open space network through the development of an integrated system of trails and greenways.

RC-G-3. Preserve as open space ridgelines, hilltops, and prominent slopes for aesthetic, biological and natural resource conservation, and safety purposes.

RC-P-1. Obtain and designate open space land through acquisition techniques such as:

a. Requiring the incorporation of open space and recreational areas into the design of new development projects, preserving and enhancing as open space significant stands of vegetation, natural landforms, and any areas of special ecological significance through site design approaches such as clustering and ecological planning.
b. Allowing clustering or transferring of all or part of the development potential of a site to a portion of the site to preserve significant environmental resources such as natural and native habitats (oak woodland, coastal sage scrub, etc.), natural creeks, artesian springs, vernal pools, seeps, riverines, wetlands, riparian habitats, wildlife corridors and linkages, and natural geological features within proposed developments as open space.
c. Allowing for acquisition of open space lands through the entitlement process through the transfer of densities among land uses of like designation.
d. Collaborating with land trusts and other conservation groups to acquire open space land through, but not limited to, conservation easements.

RC-P-5. Link parks, open spaces, and regional hiking trails with a trail network where feasible, acknowledging topographical constraints and other barriers. Incorporate existing trails and bicycle and pedestrian infrastructure, working with willing landowners to prioritize land acquisition where necessary. Where possible, incorporate landscaping and enhance natural features to create greenways along the trail network.

RC-P-7. Minimize visual and environmental impacts to ridgelines, hilltops, and slopes through regulations that minimize grading, ensure that development conforms to natural topography, and maximize safety, correlating development intensity with the steepness of terrain. Landform grading criteria and maximum allowable densities shall be based upon the slope density formula as set forth in the Development Code.

RC-P-8. Work with other jurisdictions and conservation organizations to protect prominent ridges, slopes, and hilltops in and adjacent to the city and its Sphere of Influence.

*Such features include, but are not limited to, areas identified by Los Angeles County as Significant Ecological Areas; Tonner Canyon; the hills within Tres Hermanos Ranch; and the hillsides along SR-57, between Diamond Bar and Brea.*

*Mitigation Measures*

None required.

### Impact 3.1-2 Implementation of the Proposed Project would not substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway. (*No Impact*)

As is discussed in the settings section, no adopted State scenic highway is located in Diamond Bar. The portion of SR-57 adjacent to the western boundary of Diamond Bar's SOI and from the Diamond Bar city limits to SR-57's confluence with SR-60 is, however, eligible for official scenic highway status. Along this portion of SR-57 within the Planning Area, the proposed General Plan's land use changes are minimal, given that these portions of the highway are adjacent to developed areas. Landscaped areas and/ or right of way directly adjacent to the freeway on either side also serve to ensure that development does not block views along SR-57. Given that no adopted State scenic highways are located within the Planning Area, and that the adjacent land uses are undergoing minimal changes or development as a part of the proposed General Plan, there is no impact.

*Mitigation Measures*

None required.

### Impact 3.1-3 Implementation of the Proposed Project would not, in a non-urbanized area, substantially degrade the existing visual character or quality of public views of the site and its surroundings, or in an urbanized area, conflict with applicable zoning and other regulations governing scenic quality. (*Less than Significant*)

CEQA Guidelines Section 15387 defines an urbanized area as a central city or a group of contiguous cities with a population of 50,000 or more, together with adjacent densely populated areas having a population density of at least 1,000 persons per square mile. The Planning Area consists of the City of Diamond Bar, which can be understood as an urbanized area, as well as Diamond Bar's Sphere of Influence, which can be understood as a non-urbanized area. Zoning and other regulations governing scenic quality applicable to the City of Diamond Bar include Diamond Bar Code of Ordinances provisions relating to hillside management, development review, and subdivision design, and the Diamond Bar Citywide Design Guidelines. Policies in the proposed General Plan are intended to complement and further the intent of these provisions regulating scenic quality and resources, and any development occurring under the proposed General Plan would be subject to regulations in the Diamond Bar Code of Ordinances. Scenic quality-related impacts associated with the Project would thus be less than significant.

No land use changes are proposed as part of the General Plan update in the non-urbanized Sphere of Influence. In addition, the Los Angeles County General Plan and Code of Ordinances contain provisions that would protect ridgelines and hillsides and scenic resources through the designation of Hillside Management Areas and Significant Ecological Areas. The proposed General Plan would therefore not substantially degrade the existing visual character or quality of public views of the Sphere of Influence and its surroundings.

*Proposed General Plan Policies that Address the Impact*

Goals LU-G-1, LU-G-2, LU-G-28, CC-G-1, CC-G-4, RC-G-1, RC-G-2, RC-G-3, and Policies LU-P-2, LU-P-8, LU-P-55, LU-P-56, CC-P-12, CC-P-30, CC-P-35, RC-P-1, RC-P-5, RC-P-7, and RC-P-8 as discussed under Impact 3.1-1.

*Mitigation Measures*

None required.

### Impact 3.1-4 Implementation of the Proposed Project would not create a new source of substantial light or glare that would adversely affect day or nighttime views in the area. (*Less than Significant*)

New development resulting from implementation of the proposed General Plan would necessitate the use of additional light fixtures and would contribute to existing conditions of light and glare. New light sources may include residential and non-residential interior and exterior lighting, parking lot lighting, commercial signage lighting, and lamps for streetscape and public recreational areas. Most new development resulting from the Proposed Project would take place in or near developed and urbanized areas, where moderate light and glare already exist, and would not be out of character with the urban environment. As described below, the proposed General Plan includes policies related to buffering between development and sensitive habitats, and between new development and existing uses. Finally, the Diamond Bar Municipal Code contains provisions that would limit light and glare for new non-residential and residential development. With these measures in place, this impact is considered less than significant.

*Proposed General Plan Policies that Address the Impact*

RC-P-11. Require that all development, including roads and trails, proposed adjacent to riparian and other biologically sensitive habitats avoid significant impacts that would undermine the healthy natural functioning of those areas. Require that new development proposed in such locations be designed to:

- Minimize to the greatest extent possible or eliminate impacts on environmentally sensitive areas;
- Protect the visual seclusion of forage areas from road intrusion by providing vegetative buffering;
- Provide wildlife movement linkages to water, food, shelter, and nesting sites;
- Allow wildlife and migration access by use of tunnels or other practical means;
- Provide vegetation that can be used by wildlife for cover along roadsides;
- Avoid intrusion of night lighting into identified areas through properly designed lighting systems;
- Avoid impacts to wetlands, natural springs and seeps and maintain access for wildlife or when natural water areas are removed or blocked provide a locally suitable and equal replacement; and
- To the greatest extent possible, prevent street water runoff from flowing into waterways

*Mitigation Measures*

None required.

# 3.2 Air Quality

This section assesses potential local and regional impacts on air quality from future development under the Proposed Project, including those related to air quality plans and standards, criteria pollutants, sensitive receptors, and objectionable odors. The section provides context regarding air quality standards and local air quality, as well as relevant federal, State, and local regulations and programs. This section focuses on criteria air pollutants and toxic air contaminants; greenhouse gases (GHGs) are evaluated in Section 3.5: Energy, Climate Change, and Greenhouse Gases. Calculations and supporting documentation is provided in Appendix B *Air Quality Assumptions and Calculations.*

There were numerous comments on the Notice of Preparation (NOP) regarding topics covered in this section. Those comments include the following topics specific to Air Quality.

- One comment stated that impacts from the existing and future TOD development on air quality needs to be addressed. In response, the emissions impacts from the Transit-Oriented Development (TOD) have been included in the air quality analysis; however are not directly identified. TOD tends to reduce mobile source emissions which, in general, are the greatest criteria pollutant emitters. Therefore, in general, TODs tend to reduce air quality pollutant emissions.
- One comment stated that the EIR needs to address increased traffic on Grand Ave./Golden Springs with respect to air quality emissions. In response, the air quality analysis takes into account the increase in mobile source emissions throughout the planning area on both a regional and local level. On the regional level, mobile source emissions are not identified based on impacts due to individual intersections. However, localized impacts from carbon monoxide emissions associated with individual intersections are discussed under Impact 3.2-3 in this EIR.
- One comment asked how will the EIR account for and mitigate air quality impacts with the adjacent City of Industry's projects being exempt from an EIR? In response, under CEQA, the Proposed Project is not required to mitigate for actions of other nearby projects. Therefore, any mitigation, plans or policies identified in this EIR and associated Climate Action Plan would be implemented to directly reduce impacts from the City's anticipated development. While there may be co-benefits that will reduce impacts from growth in neighboring cities, the extent of those benefits are not discussed in this EIR.
- One comment stated that the EIR should study the impacts of losing open space associated with Tres Hermanos Ranch with respect to air quality and health. Health impacts associated with the loss of open space are directly related to the development that replaces it. While site-specific emissions are not identified in this EIR, these impacts are discussed as part of the overall project impacts in this analysis.

- A member of Hills for Everyone (HFE) requested that the EIR:
  - *Address if and how the Air Quality Management Plan has been met.* A discussion of the current status of the Air Quality Management Plan is included in the Regulatory Section of this chapter.
  - *Inventory the emissions of NOx, PM10, and PM25.* An emissions inventory for NOx, PM10, and PM2.5 are included under Impacts 3.2-2 and 3.2-3 in this EIR.
  - *Address dust and diesel impacts.* Fugitive dust impacts are discussed under Impact 3.2-2 below. Diesel impacts are discussed under Impact 3.2-3 in this EIR.
  - *Evaluate acute and chronic impacts on the community.* Discussions of acute and chronic health impacts are included under Impacts 3.2-2 and 3.2-3 in this EIR.
- A member of HFE encouraged the City of Diamond Bar to complete a Health Risk Assessment based on its proximity to major freeways.
- SCAQMD has requested a copy of the DEIR upon completion, including raw modeling files. SCAQMD's request is noted and a copy of the DEIR and associated files will be provided.
- SCAQMD provides guidance for conducting the air quality analysis as well as potential mitigation measures and SCAQMD Rules and regulations that the Proposed Project could be subject to. The guidance provided by SCAQMD was used in the preparation of the EIR section as indicated in the methodology section below.

# Environmental Setting

## PHYSICAL SETTING

### Climate and Meteorology

The Project Site is located within the South Coast Air Basin (Air Basin). The Air Basin covers approximately 6,745 square miles and is bounded by the Pacific Ocean to the west and south and the San Gabriel, San Bernardino, and San Jacinto Mountains to the north and east. The Air Basin includes all of Orange County; the non-desert portions of Los Angeles, Riverside, and San Bernardino Counties; and the San Gorgonio Pass area in Riverside County.

The Air Basin has some of the worst air pollution in the country. The air pollution problems are a consequence of the combination of emissions from the nation's second largest urban area, meteorological conditions unfavorable to the dispersion of those emissions, and mountainous terrain surrounding the Air Basin that traps pollutants, as they are pushed inland with the sea breeze. Southern California also has abundant sunshine, which drives the photochemical reactions that form pollutants such as ozone ($O_3$) and a significant portion of particulate matter with an aerodynamic diameter less than or equal to 2.5 micrometers (PM2.5) (SCAQMD, 2017a).

The Air Basin lies in the semi-permanent high-pressure zone of the eastern Pacific Ocean. The usually mild climatological pattern is interrupted by periods of hot weather, winter storms, or "Santa Ana" winds. The extent and severity of pollutant concentrations in the Air Basin is a function of the area's natural physical characteristics (weather and topography) and human influences

(development patterns and lifestyle). Factors such as wind, sunlight, temperature, humidity, rainfall, and topography all affect the accumulation and dispersion of pollutants throughout the Air Basin, making it an area of high pollution potential. The Air Basin's meteorological conditions, in combination with regional topography, are conducive to the formation and retention of ozone, which is a secondary pollutant that forms through photochemical reactions in the atmosphere. Thus, the greatest air pollution impacts throughout the Air Basin typically occur from June through September. This condition is generally attributed to the emissions occurring in the Air Basin, light winds, and shallow vertical atmospheric mixing. These factors reduce the potential for pollutant dispersion causing elevated air pollutant levels. Pollutant concentrations in the Air Basin vary with location, season, and time of day. Concentrations of ozone, for example, tend to be lower along the coast, higher in the near inland valleys, and lower in the far inland areas of the Air Basin and adjacent desert.

## Pollutants of Concern

### *Criteria Pollutants*

Elevated concentrations of certain air pollutants in the atmosphere have been recognized to cause notable health problems and consequential damage to the environment either directly or in reaction with other pollutants. In the United States, such pollutants have been identified and are regulated as part of the overall endeavor to prevent further deterioration and facilitate improvement in air quality. The following pollutants are regulated by the United States Environmental Protection Agency (US EPA) and are subject to emissions control requirements adopted by federal, State and local regulatory agencies. These pollutants are referred to as "criteria air pollutants" as a result of the specific standards, or criteria, which have been adopted for them. The National Ambient Air Quality Standards (NAAQS) and California Ambient Air Quality Standards (CAAQS) for each of the monitored pollutants and their effects on health are discussed below.

**Ozone ($O_3$):** Ozone is a secondary pollutant formed by the chemical reaction of volatile organic compounds (VOCs) and nitrogen oxides ($NO_X$) in the presence of sunlight under certain meteorological conditions, such as high temperature and stagnation episodes. Ozone concentrations are generally highest during the summer months when direct sunlight, light wind, and warm temperature conditions are favorable.

According to the US EPA, ozone can cause the muscles in the airways to constrict potentially leading to wheezing and shortness of breath (US EPA, 2018a). Ozone can make it more difficult to breathe deeply and vigorously; cause shortness of breath and pain when taking a deep breath; cause coughing and sore or scratchy throat; inflame and damage the airways; aggravate lung diseases such as asthma, emphysema and chronic bronchitis; increase the frequency of asthma attacks; make the lungs more susceptible to infection; continue to damage the lungs even when the symptoms have disappeared; and cause chronic obstructive pulmonary disease (US EPA, 2018a).

Long-term exposure to ozone is linked to aggravation of asthma, and is likely to be one of many causes of asthma development. Long-term exposures to higher concentrations of ozone may also be linked to permanent lung damage, such as abnormal lung development in children (US EPA, 2018a). Inhalation of ozone causes inflammation and irritation of the tissues lining human airways,

causing and worsening a variety of symptoms, and exposure to ozone can reduce the volume of air that the lungs breathe in and cause shortness of breath (CARB, ND1).

The US EPA states that people most at risk from breathing air containing ozone include people with asthma, children, older adults, and people who are active outdoors, especially outdoor workers (US EPA, 2018a). Children are at greatest risk from exposure to ozone because their lungs are still developing and they are more likely to be active outdoors when ozone levels are high, which increases their exposure (US EPA, 2018a). Studies show that children are no more or less likely to suffer harmful effects than adults; however, children and teens may be more susceptible to ozone and other pollutants because they spend nearly twice as much time outdoors and engaged in vigorous activities compared to adults (CARB, ND1). Children breathe more rapidly than adults and inhale more pollution per pound of their body weight than adults and are less likely than adults to notice their own symptoms and avoid harmful exposures (CARB, ND1). Further research may be able to better distinguish between health effects in children and adults (CARB, ND1).

**Volatile Organic Compounds (VOCs):** VOCs are organic chemical compounds of carbon and are not "criteria" air pollutants themselves; however, in combination with NOx in the presence of sunlight they form ozone, and are regulated to prevent the formation of ozone (US EPA, 2017a). Some VOCs are highly reactive and play a critical role in the formation of ozone. Potential health effects of ozone exposure are discussed above. Other VOCs can result in adverse health effects from direct exposure, and are classified by the State of California as Toxic Air Contaminants (TACs) or Hazardous Air Pollutants (HAPS) by USEPA (CARB, 2016). The health effects of VOCs, as TACs/HAPs, are discussed more thoroughly below.

VOCs are typically formed from combustion of fuels and/or released through evaporation of organic liquids. Fuel combustion can occur in internal combustion sources, such as motor vehicle usage, landscape and other portable equipment, and stationary generators, or external combustion, such as for water and space heating. Evaporation sources include fueling operations, consumer products (e.g., cleaning solutions), and architectural coatings (CARB, 2016).

**Nitrogen Dioxide ($NO_2$) and Nitrogen Oxides ($NO_X$):** $NO_X$ is a term that refers to a group of compounds containing nitrogen and oxygen. As mentioned above, NOx combines with VOCs in the presence of sunlight to form ozone. The health effects associated with the formation of ozone are discussed above under Ozone. The primary compounds of air quality concern include $NO_2$ and nitric oxide (NO). Ambient air quality standards have been promulgated for $NO_2$, which is a reddish-brown, reactive gas (CARB, ND2).

The principal form of $NO_X$ produced by combustion is NO, but NO reacts quickly in the atmosphere to form $NO_2$, creating the mixture of NO and $NO_2$ referred to as $NO_X$. Major sources of $NO_X$ include emissions from cars, trucks and buses, power plants, and off-road equipment. The terms $NO_X$ and $NO_2$ are sometimes used interchangeably. However, the term $NO_X$ is typically used when discussing emissions, usually from combustion-related activities, and the term $NO_2$ is typically used when discussing ambient air quality standards. Where $NO_X$ emissions are discussed in the context of the thresholds of significance or impact analyses, the discussions are based on the conservative assumption that all $NO_X$ emissions would oxidize in the atmosphere to form $NO_2$.

Short-term exposures to $NO_2$ can potentially aggravate respiratory diseases, particularly asthma, leading to respiratory symptoms (such as coughing, wheezing or difficulty breathing), hospital

admissions and visits to emergency rooms while longer exposures to elevated concentrations of $NO_2$ may contribute to the development of asthma and potentially increase susceptibility to respiratory infections (US EPA, 2016a). Controlled human exposure studies that show that $NO_2$ exposure can intensify responses to allergens in allergic asthmatics (CARB, ND2).

In addition, epidemiological studies have demonstrated associations between $NO_2$ exposure and premature death, cardiopulmonary effects, decreased lung function growth in children, respiratory symptoms, emergency room visits for asthma, and intensified allergic responses (CARB, ND2). Infants and children are particularly at risk from exposure to $NO_2$ because they have disproportionately higher exposure to $NO_2$ than adults due to their greater breathing rate for their body weight and their typically greater outdoor exposure duration while in adults, the greatest risk is to people who have chronic respiratory diseases, such as asthma and chronic obstructive pulmonary disease (CARB, ND2).

Much of the information on distribution in air, human exposure and dose, and health effects is specifically for $NO_2$ and there is only limited information for NO and $NO_X$, as well as large uncertainty in relating health effects to NO or $NO_X$ exposure (CARB, ND2).

**Carbon Monoxide (CO):** CO is primarily emitted from combustion processes and motor vehicles due to the incomplete combustion of fuel, such as natural gas, gasoline, or wood, with the majority of outdoor CO emissions from mobile sources (CARB, ND3).

Breathing air with a high concentration of CO reduces the amount of oxygen that can be transported in the blood stream to critical organs like the heart and brain and at very high levels, which are possible indoors or in other enclosed environments, CO can cause dizziness, confusion, unconsciousness and death (US EPA, 2016b). Very high levels of CO are not likely to occur outdoors; however, when CO levels are elevated outdoors, they can be of particular concern for people with some types of heart disease since these people already have a reduced ability for getting oxygenated blood to their hearts and are especially vulnerable to the effects of CO when exercising or under increased stress (US EPA, 2016b). In these situations, short-term exposure to elevated CO may result in reduced oxygen to the heart accompanied by chest pain also known as angina (US EPA, 2016b).

The most common effects of CO exposure are fatigue, headaches, confusion, and dizziness due to inadequate oxygen delivery to the brain (CARB, ND3). For people with cardiovascular disease, short-term CO exposure can further reduce their body's already compromised ability to respond to the increased oxygen demands of exercise, exertion, or stress; inadequate oxygen delivery to the heart muscle leads to chest pain and decreased exercise tolerance (CARB, ND3). Unborn babies, infants, elderly people, and people with anemia or with a history of heart or respiratory disease are most likely to experience health effects with exposure to elevated levels of CO (CARB, ND3).

**Sulfur Dioxide ($SO_2$):** The largest source of $SO_2$ emissions in the atmosphere is the burning of fossil fuels by power plants and other industrial facilities while smaller sources of $SO_2$ emission include industrial processes such as extracting metal from ore; natural sources such as volcanoes; and locomotives, ships and other vehicle and heavy equipment that burn fuel with a high sulfur content (US EPA, 2018b). In 2006, California phased-in the ultra-low-sulfur diesel regulation limiting vehicle diesel fuel to a sulfur content not exceeding 15 parts per million, down from the previous

requirement of 500 parts per million, substantially reducing emissions of sulfur from diesel combustion (CARB, 2004).

Short-term exposures to $SO_2$ can harm the human respiratory system and make breathing difficult (US EPA, 2018b). Health effects at levels near the State one-hour standard are those of asthma exacerbation, including bronchoconstriction accompanied by symptoms of respiratory irritation such as wheezing, shortness of breath and chest tightness, especially during exercise or physical activity and exposure at elevated levels of $SO_2$ (above 1 parts per million (ppm)) results in increased incidence of pulmonary symptoms and disease, decreased pulmonary function, and increased risk of mortality (CARB, ND4). Children, the elderly, and people with asthma, cardiovascular disease, or chronic lung disease (such as bronchitis or emphysema) are most likely to experience the adverse effects of $SO_2$ (CARB, ND4; US EPA, 2018b).

**Particulate Matter (PM10 and PM2.5):** Particulate matter air pollution is a mixture of solid particles and liquid droplets found in the air (US EPA, 2018c). Some particles, such as dust, dirt, soot, or smoke, are large or dark enough to be seen with the naked eye while other particles are so small that they can only be detected using an electron microscope (US EPA, 2018c). Particles are defined by their diameter for air quality regulatory purposes: inhalable particles with diameters that are generally 10 micrometers and smaller (PM10); inhalable particles with diameters that are 2.5 micrometers or less (PM2.5) (US EPA, 2018c). Thus, PM2.5 comprises a portion or a subset of PM10.

Sources of PM10 emissions include dust from construction sites, landfills and agriculture, wildfires and brush/waste burning, industrial sources, and wind-blown dust from open lands (CARB, 2017). Sources of PM2.5 emissions include combustion of gasoline, oil, diesel fuel, or wood (CARB, 2017). PM10 and PM2.5 may be either directly emitted from sources (primary particles) or formed in the atmosphere through chemical reactions of gases (secondary particles) such as $SO_2$, $NO_X$, and certain organic compounds (CARB, 2017).

Both PM10 and PM2.5 can be inhaled, with some depositing throughout the airways; PM10 is more likely to deposit on the surfaces of the larger airways of the upper region of the lung, while PM2.5 is more likely to travel into and deposit on the surface of the deeper parts of the lung, which can induce tissue damage, and lung inflammation (CARB, 2017). Short-term (up to 24 hours' duration) exposure to PM10 has been associated primarily with worsening of respiratory diseases, including asthma and chronic obstructive pulmonary disease, leading to hospitalization and emergency department visits (CARB, 2017). The effects of long-term (months or years) exposure to PM10 are less clear, although studies suggest a link between long-term PM10 exposure and respiratory mortality. The International Agency for Research on Cancer published a review in 2015 that concluded that particulate matter in outdoor air pollution causes lung cancer (CARB, 2017).

Short-term exposure to PM2.5 has been associated with premature mortality, increased hospital admissions for heart or lung causes, acute and chronic bronchitis, asthma attacks, emergency room visits, respiratory symptoms, and restricted activity days. Long-term exposure to PM2.5 has been linked to premature death, particularly in people who have chronic heart or lung diseases, and reduced lung function growth in children (CARB, 2017). According to CARB, populations most likely to experience adverse health effects with exposure to PM10 and PM2.5 include older adults with chronic heart or lung disease, children, and asthmatics. Children and infants are more susceptible to harm from inhaling pollutants such as PM10 and PM2.5 compared to healthy adults

because they inhale more air per pound of body weight than do adults, spend more time outdoors, and have developing immune systems (CARB, 2017).

**Lead (Pb):** Major sources of lead emissions include ore and metals processing, piston-engine aircraft operating on leaded aviation fuel, waste incinerators, utilities, and lead-acid battery manufacturers (US EPA, 2017b). In the past, leaded gasoline was a major source of lead emissions; however, the removal of lead from gasoline has resulted in a decrease of lead in the air by 98 percent between 1980 and 2014 (US EPA, 2017b).

Lead can adversely affect the nervous system, kidney function, immune system, reproductive and developmental systems and the cardiovascular system, and affects the oxygen carrying capacity of blood (US EPA, 2017b). The lead effects most commonly encountered in current populations are neurological effects in children, such as behavioral problems and reduced intelligence, anemia, and liver or kidney damage (CARB, ND5). Excessive lead exposure in adults can cause reproductive problems in men and women, high blood pressure, kidney disease, digestive problems, nerve disorders, memory and concentration problems, and muscle and joint pain (CARB, ND5).[1]

### *Air Toxics*

#### Toxic Air Contaminants

TACs, or HAPs as defined by the US EPA, are defined as those contaminants that are known or suspected to cause serious health problems, but do not have a corresponding ambient air quality standard (US EPA, 2018c). For consistency within this document they are referred to as TACs. TACs are also defined as an air pollutant that may increase a person's risk of developing cancer and/or other serious health effects. TACs are emitted by a variety of industrial processes such as petroleum refining, electric utility and chrome plating operations, commercial operations such as gasoline stations and dry cleaners, and motor vehicle exhaust. TACs may exist as PM10 and PM2.5 or as vapors (gases) (US EPA, 2018c). TACs include metals, other particles, gases absorbed by particles, and certain vapors from fuels and other sources. The emission of a TAC does not automatically create a health hazard. Other factors, such as the amount of the TAC, its toxicity, how it is released into the air, the weather, and the terrain, all influence whether the emission could be hazardous to human health. Emissions of TACs into the air can be damaging to human health and to the environment. Human exposure to TACs at sufficient concentrations and durations can result in cancer, poisoning, and rapid onset of sickness, such as nausea or difficulty in breathing. Other less measurable effects include immunological, neurological, reproductive, developmental, and respiratory problems. TACs deposited onto soil or into lakes and streams affect ecological systems and eventually human health through consumption of contaminated food. The carcinogenic potential of TACs is a particular public health concern because many scientists currently believe that there is no "safe" level of exposure to carcinogens. Any exposure to a carcinogen poses some risk of contracting cancer (US EPA, 2018c).

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[1] While the SCAQMD CEQA Air Quality Handbook contains numerical indicators of significance for lead, project construction and operation would not include sources of lead emissions and would not exceed the numerical indicators for lead. Unleaded fuel and unleaded paints have virtually eliminated lead emissions from commercial land use projects that may occur under the Proposed Project. As a result, lead emissions are not further evaluated in this Draft EIR.

The public's exposure to TACs is a significant public health issue in California. The Air Toxics "Hotspots" Information and Assessment Act is a State law requiring facilities to report emissions of TACs to air districts (CARB, ND6). The program is designated to quantify the amounts of potentially hazardous air pollutants released, the location of the release, the concentrations to which the public is exposed, and the resulting health risks. The State Air Toxics Program (Assembly Bill 2588) identified over 200 TACs, including the 188 TACs identified in the federal Clean Air Act (CAA) (CARB, ND6).

The US EPA has assessed this expansive list and identified 21 TACs as Mobile Source Air Toxics (MSATs) (US EPA, 2004). MSATs are compounds emitted from highway vehicles and non-road equipment. Some toxic compounds are present in fuel and are emitted to the air when the fuel evaporates or passes through the engine unburned. Other toxics are emitted from the incomplete combustion of fuels or as secondary combustion products. Metal air toxics also result from engine wear or from impurities in oil or gasoline. US EPA also extracted a subset of these 21 MSAT compounds that it now labels as the nine priority MSATs: 1,3-butaidene, acetaldehyde, acrolein, benzene, diesel particulate matter/diesel exhaust organic gases, ethylbenzene, naphthalene, and polycyclic organic matter (POM). While these nine MSATs are considered the priority transportation toxics, US EPA stresses that the lists are subject to change and may be adjusted in future rules (DOT, 2016).

Diesel Exhaust

According to the California Almanac of Emissions and Air Quality, the majority of the estimated health risks from TACs can be attributed to relatively few compounds, the most important being particulate matter from the exhaust of diesel-fueled engines, i.e., diesel particulate matter (DPM) (CARB, 2010a). DPM differs from other TACs in that it is not a single substance, but rather a complex mixture of hundreds of substances.

Diesel exhaust is composed of two phases, gas and particle, both of which contribute to health risks. The gas phase is composed of many of the urban hazardous air pollutants, such as acetaldehyde, acrolein, benzene, 1,3-butadiene, formaldehyde and polycyclic aromatic hydrocarbons. The particle phase is also composed of many different types of particles by size or composition. Fine and ultra-fine diesel particulates are of the greatest health concern, and may be composed of elemental carbon with adsorbed compounds such as organic compounds, sulfate, nitrate, metals and other trace elements. Diesel exhaust is emitted from a broad range of diesel engines; the on-road diesel engines of trucks, buses and cars and the off-road diesel engines that include locomotives, marine vessels and heavy-duty equipment. Although DPM is emitted by diesel-fueled internal combustion engines, the composition of the emissions varies depending on engine type, operating conditions, fuel composition, lubricating oil, and whether an emission control system is present.

The most common exposure to DPM is breathing air that contains diesel exhaust. The fine and ultra-fine particles are respirable (similar to PM2.5), which means that they can avoid many of the human respiratory system defense mechanisms and enter deeply into the lung. Exposure to DPM comes from both on-road and off-road engine exhaust that is either directly emitted from the engines or lingering in the atmosphere.

Diesel exhaust causes health effects from long-term chronic exposures. The type and severity of health effects depends upon several factors including the amount of chemical exposure and the duration of exposure. Individuals also react differently to different levels of exposure. There is limited information on exposure to only DPM, but there is enough evidence to indicate that inhalation exposure to diesel exhaust causes chronic health effects as well as having cancer-causing potential.

Because it is part of PM2.5, DPM also contributes to the same non-cancer health effects as PM2.5 exposure. These effects include premature death, hospitalizations and emergency department visits for exacerbated chronic heart and lung disease, including asthma, increased respiratory symptoms, and decreased lung function in children. Several studies suggest that exposure to DPM may also facilitate development of new allergies. Those most vulnerable to non-cancer health effects are children whose lungs are still developing and the elderly who often have chronic health problems (CARB, ND7).

#### Gasoline Exhaust

Similar to diesel exhaust, exhaust from gasoline-fueled engines is composed of two phases, gas and particle, both of which contribute to health risks. The gas phase is composed of the same hazardous air pollutants, such as acetaldehyde, acrolein, benzene, 1,3-butadiene, formaldehyde and polycyclic aromatic hydrocarbons. The particle phase is also composed of many different types of particles by size or composition. Fine and ultra-fine diesel particulates are of the greatest health concern, and may be composed of elemental carbon with adsorbed compounds such as organic compounds, sulfate, nitrate, metals and other trace elements. Gasoline exhaust is primarily emitted from light-duty passenger vehicles. The compounds in the gas and particles phases can cause health effects from short and long-term exposures.

#### Visibility Reducing Particles

Visibility-reducing particles are any particles in the atmosphere that obstruct the range of visibility by creating haze (CARB, ND8). These particles vary in shape, size and chemical composition, and come from a variety of natural and manmade sources including windblown metals, soil, dust, salt, and soot. Other haze-causing particles are formed in the air from gaseous pollutant (e.g., sulfates, nitrates, organic carbon particles) which are the major constituents of fine PM, such as PM2.5 and PM10, and are caused from the combustion of fuel. CARB's standard for visibility reducing particles is not based on health effects, but rather on welfare effects, such as reduced visibility and damage to materials, plants, forests, and ecosystems. The health impacts associated with PM2.5 and PM10 are discussed above under Particulate Matter.

## Existing Conditions

### *Regional Air Quality*

The Air Basin's meteorological conditions, in combination with regional topography, are conducive to the formation and retention of ozone. Pollutant concentrations in the Air Basin vary with location, season, and time of day.

Attainment Status

California Health and Safety Code section 39607(e) requires the California Air Resources Board (CARB) to establish and periodically review area attainment designation criteria. Local monitoring data collected by the ambient air quality monitoring stations are used to designate areas as nonattainment, maintenance, attainment, or unclassified for NAAQS and CAAQS. The four designations are further defined as:

- **Nonattainment.** Assigned to areas where monitored pollutant concentrations violate the standard in question.
- **Maintenance.** Assigned to areas where monitored pollutant concentrations exceeded the standard in question in the past but are no longer in violation of that standard.
- **Attainment.** Assigned to areas where pollutant concentrations meet the standard in question over a designated period of time.
- **Unclassified.** Assigned to areas where data are insufficient to determine whether a pollutant is violating the standard in question.

Table 3.2-1 provides a summary of the attainment status of the Los Angeles County portion of the Air Basin with respect to the federal and State standards.

**Table 3.2-1: Attainment Status**

| *Pollutant* | *Federal Standards* | *California Standards* |
|---|---|---|
| O3 (1-hour standard) | N/A[a] | Non-attainment |
| O3 (8-hour standard) | Non-attainment – Extreme | Non-attainment |
| CO | Attainment | Attainment |
| NO2 | Attainment | Attainment |
| SO2 | Attainment | Attainment |
| PM10 | Attainment | Non-attainment |
| PM2.5 | Non-attainment | Non-attainment |
| Lead | Non-attainment (Partial, Los Angeles County)[b] | Attainment |
| Visibility Reducing Particles | N/A | Unclassified |
| Sulfates | N/A | Attainment |
| Hydrogen Sulfide | N/A | Unclassified |
| Vinyl Chloride | N/A | N/A [c] |

Notes:

N/A = not applicable

a The NAAQS for 1-hour ozone was revoked on June 15, 2005, for all areas except Early Action Compact areas.

b Partial Nonattainment designation – Los Angeles County portion of the Air Basin only for near-source monitors.

c In 1990, CARB identified vinyl chloride as a toxic air contaminant and determined that it does not have an identifiable threshold. Therefore, CARB does not monitor or make status designations for this pollutant.

*Sources: US EPA, 2019; CARB, 2018.*

As shown in Table 3.2-1, the Los Angeles portion of the Air Basin (where the project is located) is designated under federal or State ambient air quality standards as nonattainment for ozone, PM10, PM2.5, and lead. It is noteworthy to mention that air quality in the Air Basin has improved substantially over the years, primarily due to the impacts of air quality control programs at the federal, State and local levels. The ozone and PM levels have fallen significantly compared to the worst years and are expected to continue to trend downward in the future despite increases in the economy and population in the Air Basin (SCAQMD, 2017a).

The State-only criteria air pollutants (sulfates, hydrogen sulfide, visibility reducing particles, and vinyl chloride) are shown in Table 3.2-1, Future development of land uses allowed under the Proposed Project would not use these pollutants during day-to-day operations or construction, and therefore, would not generate emissions of those pollutants (hydrogen sulfide, vinyl chloride, and lead. However, if such emissions would be generated, these emissions are accounted for as part of the pollutants estimated in this analysis (e.g., visibility reducing particles are associated with particulate matter emissions, and sulfates are associated with $SO_2$). Vinyl chloride is used in the process of making polyvinyl chloride (PVC) plastic and vinyl products, and is primarily emitted from industrial processes (CARB, ND9). Vinyl chloride would not be emitted directly during operations or during construction; therefore, there would be no project emissions of vinyl chloride. In addition, CARB determined there is not sufficient scientific evidence available to support the identification of a threshold exposure level for vinyl chloride, therefore, CARB does not monitor or make status designations for this pollutant (CARB, 2011).

#### Types of Sources

The major sources of air pollution in the Air Basin are divided into four major source classifications: point and area stationary sources, and on-road and off-road mobile sources. Point and area sources are the two major subcategories of stationary sources (SCAQMD, 2017a). Point sources are permitted facilities that contain one or more emission sources at an identified location (e.g., power plants, refineries, emergency generator exhaust stacks). Area sources consist of many small emission sources (e.g., residential water heaters, architectural coatings, consumer products, restaurant charbroilers and permitted sources such as large boilers) which are distributed across the region. Mobile sources consist of two main subcategories: On-road sources (such as cars and trucks) and off-road sources (such as heavy construction equipment).

### *Local Area Conditions*

#### Existing Ambient Air Quality in the Surrounding Area

In order to measure and establish ambient pollutant concentrations, SCAQMD maintains a network of air quality monitoring stations located throughout the Air Basin. The monitoring station most representative of the Project Site is the Pomona Monitoring Station, located at 924 N. Garey Avenue, Pomona. Since PM10 and PM2.5 data are not available at the Pomona station, the monitoring data collected at the station located at 840 Laurel Ave, Glendora was used for it being relatively close to and having similar surroundings as the Proposed Project. $SO_2$ is not monitored at a site near enough to the City of Diamond Bar to provide data relevant to local conditions. The most recent data available from SCAQMD for these two monitoring stations are from years 2016 to 2018 (SCAQMD, 2018, 2017b, 2016). The pollutant concentration data for ozone, $NO_2$, CO, PM10, and PM2.5 for these years are summarized in Table 3.2-2. As shown in Table 3.2-2, the

CAAQS and NAAQS were exceeded in the vicinity of the Planning Area for ozone and the CAAQS were exceeded for PM10 and PM2.5 between 2016 and 2018.

**Table 3.2-2: Ambient Air Quality in the Project Vicinity**

| *Pollutant/Standard* [a,b,c] | *2016* | *2017* | *2018* |
|---|---|---|---|
| **Ozone, $O_3$ (1-hour)** | | | |
| Maximum Concentration (ppm) | 0.127 | 0.147 | 0.112 |
| Days > CAAQS (0.09 ppm) | 20 | 18 | 7 |
| **Ozone, $O_3$ (8-hour)** | | | |
| Maximum Concentration (ppm) | 0.092 | 0.114 | 0.092 |
| Days > CAAQS (0.070 ppm) | 29 | 35 | 10 |
| Days > NAAQS (0.070 ppm) | 26 | 35 | 10 |
| **Nitrogen Dioxide, $NO_2$ (1-hour)** | | | |
| Maximum Concentration (ppm) | 0.068 | 0.081 | 0.068 |
| Days > CAAQS (0.18 ppm) | 0 | 0 | 0 |
| 98th Percentile Concentration (ppm) | 0.063 | 0.063 | 0.060 |
| Days > NAAQS (0.100 ppm) | 0 | 0 | 0 |
| **Nitrogen Dioxide, $NO_2$ (Annual)** | | | |
| Annual Arithmetic Mean (0.030 ppm) | 0.020 | 0.021 | 0.019 |
| **Carbon Monoxide, CO (1-hour)** | | | |
| Maximum Concentration (ppm) | 1.7 | 2.0 | 2.1 |
| Days > CAAQS (20 ppm) | 0 | 0 | 0 |
| Days > NAAQS (35 ppm) | 0 | 0 | 0 |
| **Carbon Monoxide, CO (8-hour)** | | | |
| Maximum Concentration (ppm) | 1.3 | 1.6 | 1.8 |
| Days > CAAQS (9.0 ppm) | 0 | 0 | 0 |
| Days > NAAQS (9 ppm) | 0 | 0 | 0 |
| **Respirable Particulate Matter, PM10 (24-hour)** | | | |
| Maximum Concentration (μg/m$^3$) | | | |
| Samples > CAAQS (50 μg/m$^3$) | 74 | 83 | 78 |
| Samples > NAAQS (150 μg/m$^3$) | 12 | 6 | 20 |
| **Respirable Particulate Matter, PM10 (Annual)** | 0 | 0 | 0 |
| Annual Arithmetic Mean (20 μg/m$^3$) [d] | 33.7 | 31.4 | 32.2 |
| **Fine Particulate Matter, PM2.5 (24-hour)** | | | |
| Maximum Concentration (μg/m$^3$) | | | |
| 98th Percentile Concentration (μg/m$^3$) | 32.17 | 24.9 | 30.20 |
| Samples > NAAQS (35 μg/m$^3$) | 29.01 | 21.2 | 25.9 |
| **Fine Particulate Matter, PM2.5 (Annual)** | 0 | 0 | 0 |
| Annual Arithmetic Mean (12 μg/m$^3$) [e] | 10.15 | 10.42 | 10.35 |

**Table 3.2-2: Ambient Air Quality in the Project Vicinity**

| *Pollutant/Standard* [a,b,c] | *2016* | *2017* | *2018* |
|---|---|---|---|

Note:

a ppm = parts per million; μg/m$^3$ = micrograms per cubic meter

b The monitoring station most representative of the City of Diamond Bar is the Pomona Monitoring Station, which is used to establish ambient ozone, $NO_2$, and CO, levels. Since PM10 and PM2.5 data are not available at the Pomona station, the monitoring data collected at the station Glendora monitoring station are used. The most recent data available from the SCAQMD for these two monitoring stations are from years 2016 to 2018.

c CAAQS are based on a not to exceed standard. NAAQS are based on a 3 year average of the annual 4$^{th}$ highest daily maximum 8 hour concentration.

d State annual average (AAM) PM10 standard is > 20 μg/m$^3$. Federal annual PM10 standard (AAM > 50 μg/m3) was revoked in 2006.

e Both Federal and State standards are annual average (AAM) > 12.0 μg/m$^3$.

*Sources: SCAQMD, 2018; SCAQMD, 2017b; SCAQ, 2016.*

Existing Health Risk in the Surrounding Area

In 2015, SCAQMD issued the Multiple Air Toxics Exposure Study (MATES IV) (SCAQMD, 2015a), which estimated long-term inhalation carcinogenic exposure risks from more than 30 air pollutants, including both gases and particulates, for the Air Basin. The monitoring study was accompanied by a computer modeling study in which SCAQMD estimated the risk of cancer from breathing toxic air pollution throughout the region based on emissions and weather data. The predictive study based on computer modeling concluded a background cancer risk of approximately 1,023 in one million. A population-weighted average risk was determined at approximately 997 in one million based on actual monitored data measured throughout the Air Basin.

These estimates used the cancer risk calculation methods adapted by the California Environmental Protection Agency, Office of Environmental Health Hazard Assessment (OEHHA) in 2015. These methods utilize higher estimates of cancer potency during early life exposures and use different assumptions for breathing rates and length of residential exposures (CalEPA, 2015). Under the updated OEHHA methodology, the relative reduction in the overall cancer risk from the MATES IV results compared to MATES III would be about 65 percent and 57 percent, respectively. Based on the online MATES IV Carcinogenic Risk Interactive Map, the background cancer risk estimate in the City of Diamond Bar ranges from approximately 607 in one million to 1,206 in one million (SCAQMD, 2015a).

According to the MATES IV, approximately 68 percent of the airborne carcinogenic risk in the Air Basin is attributed to DPM emissions, approximately 22 percent to other toxics associated with mobile sources (including benzene, butadiene, and formaldehyde), and approximately 10 percent is attributed to stationary sources (which include industries and certain other businesses, such as dry cleaners and chrome plating operations) (SCAQMD, 2015a). Generally, the risk from air toxics is lower near the coastline and increases inland, with higher risks concentrated near large diesel sources (e.g., freeways, airports, and ports).

Existing Local Emissions

The City of Diamond Bar is a mix of residential, commercial, retail, office, industrial, school recreational and open space land uses. Everyday operational activities at these residences and businesses result in the emission of air pollutants associated with vehicle trips, off-road equipment (such as forklifts), landscaping equipment, on-site combustion of natural gas for heating and cooking, and fugitive emissions of VOCs from the use of aerosol products and coatings and landscaping. However, data with respect to the exact activity level (i.e. utility consumptions, trip generation) at each business may not be obtainable, so existing emissions estimates are based on default values (provided by the existing utilities for Natural Gas consumption), vehicle miles traveled (VMT) (provided by Fehr & Peers), OFFRoad Mobile Emissions Source Emission Factors for offroad equipment, and the California Emissions Estimator (CalEEMod) for area source emissions. Table 3.2-3 presents the regional emissions from the existing development in the City of Diamond Bar.

**Table 3.2-3 Existing Diamond Bar Emissions (lbs/day)**

| *Source* | *VOC* | *NOX* | *CO* | *SO2* | *PM10* | *PM2.5* |
|---|---|---|---|---|---|---|
| **Existing Regional Emissions** | | | | | | |
| Area (Consumer Products, Landscaping) | 832 | 205 | 1,662 | 1 | 24 | 24 |
| Energy (Natural Gas) | 24 | 207 | 110 | 1 | 16 | 16 |
| Motor Vehicles | 303 | 2,743 | 6,749 | 14 | 1,121 | 318 |
| **Total Regional Existing Emissions** | **1,158** | **3,155** | **8,521** | **17** | **1,161** | **358** |
| **Existing Localized Emissions** | | | | | | |
| Area (Consumer Products, Landscaping) | 832 | 205 | 1,662 | 1 | 24 | 24 |
| Energy (Natural Gas) | 24 | 207 | 110 | 1 | 16 | 16 |
| Motor Vehicles | 303 | 2,743 | 6,749 | 14 | 1,121 | 318 |
| **Total Localized Existing Emissions** | **856** | **412** | **1,772** | **3** | **40** | **40** |

Note:
[a] Totals may not add up exactly due to rounding in the modeling calculations. Detailed emissions calculations are provided in Appendix B.

*Source: ESA, 2019.*

## Sensitive Populations and Receptors

Certain population groups, such as children, elderly, and acutely and chronically ill persons (especially those with cardio-respiratory diseases), are considered more sensitive to the potential effects of air pollution than others. SCAQMD defines sensitive receptors as any residence (including private homes, condominiums, apartments, and other living quarters), schools, preschools, daycare centers and health facilities such as hospitals or retirement and nursing homes. It also includes long-term care hospitals, hospices, prisons, and dormitories or similar live-in housing.

Because the Proposed Project is a planning document that does not include exact locations, sizes, or land use type for any individual projects that will occur within the City under the General Plan, there are no specific sensitive locations identified with respect to the Proposed Project. As a conservative estimate of impacts, sensitive receptors are anticipated to be located directly adjacent to new development.

## REGULATORY SETTING

### Federal Regulations

The 1963 federal CAA was the first federal legislation regarding air pollution control and has been amended numerous times in subsequent years, with the most recent amendments occurring in 1990. At the federal level, US EPA is responsible for implementation of certain portions of the CAA including mobile source requirements.

The CAA establishes federal air quality standards and specifies future dates for achieving compliance. The CAA also mandates that the State submit and implement a State Implementation Plan (SIP) for areas not meeting these standards. SIPs must include pollution control measures that demonstrate how the NAAQS will be met. The 1990 amendments to the CAA identify specific emission reduction goals for areas not meeting the NAAQS. These amendments require both a demonstration of reasonable further progress toward attainment and incorporation of additional sanctions for failure to attain or to meet interim milestones. The sections of the CAA that are most applicable to the Proposed Project include Title I (Nonattainment Provisions).

Title I requirements are implemented for the purpose of attaining NAAQS for the following criteria air pollutants: $O_3$; $NO_2$; CO; $SO_2$; PM10; and lead. The NAAQS were amended in July 1997 to include an 8-hour standard for $O_3$ and to adopt a NAAQS for PM2.5. The NAAQS were also amended in September 2006 to include an established methodology for calculating PM2.5 as well as revoking the annual PM10 threshold. Table 3.2-4 shows the NAAQS currently in effect for each criteria air pollutant.

**Table 3.2-4: Ambient Air Quality Standards**

| *Pollutant* | *Average Time* | *California Standards[a]* | | *National Standards[b]* | | |
|---|---|---|---|---|---|---|
| | | *Concentration[c]* | *Method[d]* | *Primary[c,e]* | *Secondary[c,f]* | *Method[g]* |
| $O_3$[h] | 1 Hour | 0.09 ppm (180 µg/m3) | Ultraviolet Photometry | — | Same as Primary Standard | Ultraviolet Photometry |
| | 8 Hour | 0.070 ppm (137 µg/m3) | | 0.070 ppm (137 µg/m3) | | |
| $NO_2$[i] | 1 Hour | 0.18 ppm (339 µg/m3) | Gas Phase Chemi-luminescence | 100 ppb (188 µg/m3) | None | Gas Phase Chemi-luminescence |
| | Annual Arithmetic Mean | 0.030 ppm (57 µg/m3) | | 53 ppb (100 µg/m3) | Same as Primary Standard | |
| CO | 1 Hour | 20 ppm (23 mg/m3) | Non-Dispersive Infrared Photometry (NDIR) | 35 ppm (40 mg/m3) | None | Non-Dispersive Infrared Photometry (NDIR) |
| | 8 Hour | 9.0 ppm (10mg/m3) | | 9 ppm (10 mg/m3) | | |
| | 8 Hour (Lake Tahoe) | 6 ppm (7 mg/m3) | | — | — | |
| $SO_2$[j] | 1 Hour | 0.25 ppm (655 µg/m3) | Ultraviolet Fluorescence | 75 ppb (196 µg/m3) | — | Ultraviolet Fluorescence; Spectrophotometry (Pararosaniline Method) |
| | 3 Hour | — | | — | 0.5 ppm (1300 µg/m3) | |
| | 24 Hour | 0.04 ppm (105 µg/m3) | | 0.14 ppm (for certain areas)[j] | — | |
| | Annual Arithmetic Mean | — | | 0.030 ppm (for certain areas)[j] | — | |

**Table 3.2-4: Ambient Air Quality Standards**

| *Pollutant* | *Average Time* | *California Standards[a]* | | *National Standards[b]* | | |
|---|---|---|---|---|---|---|
| | | *Concentration[c]* | *Method[d]* | *Primary[c,e]* | *Secondary[c,f]* | *Method[g]* |
| PM10[k] | 24 Hour | 50 µg/m3 | Gravimetric or Beta Attenuation | 150 µg/m3 | Same as Primary Standard | Inertial Separation and Gravimetric Analysis |
| | Annual Arithmetic Mean | 20 µg/m3 | | — | | |
| PM2.5[k] | 24 Hour | No Separate State Standard | | 35 µg/m3 | Same as Primary Standard | Inertial Separation and Gravimetric Analysis |
| | Annual Arithmetic Mean | 12 µg/m3 | Gravimetric or Beta Attenuation | 12.0 µg/m3 [k] | 15 µg/m3 | |
| Lead[l,m] | 30 Day Average | 1.5 µg/m3 | Atomic Absorption | — | — | High Volume Sampler and Atomic Absorption |
| | Calendar Quarter | — | | 1.5 µg/m3 (for certain areas)[m] | Same as Primary Standard | |
| | Rolling 3-Month Average | -- | | 0.15 µg/m3 | | |
| Visibility Reducing Particles[n] | 8 Hour | Extinction coefficient of 0.23 per kilometer — visibility of ten miles or more (0.07 — 30 miles or more for Lake Tahoe) due to particles when relative humidity is less than 70 percent. Method: Beta Attenuation and Transmittance through Filter Tape. | | No Federal Standards | | |
| Sulfates ($SO_4$) | 24 Hour | 25 µg/m3 | Ion Chromatography | | | |
| Hydrogen Sulfide | 1 Hour | 0.03 ppm (42 µg/m3) | Ultraviolet Fluorescence | | | |
| Vinyl Chloride[l] | 24 Hour | 0.01 ppm (26 µg/m3) | Gas Chromatography | | | |

Notes:

a California standards for ozone, carbon monoxide (except 8-hour Lake Tahoe), sulfur dioxide (1 and 24 hour), nitrogen dioxide, and particulate matter (PM10, PM2.5, and visibility reducing particles), are values that are not to be exceeded. All others are not to be equaled or exceeded. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.

b National standards (other than ozone, particulate matter, and those based on annual arithmetic mean) are not to be exceeded more than once a year. The ozone standard is attained when the fourth highest 8-hour concentration measured at each site in a year, averaged over three years, is equal to or less than the standard. For PM10, the 24-hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 micrograms/per cubic meter ($\mu g/m^3$) is equal to or less than one. For PM2.5, the 24-hour standard is attained when 98 percent of the daily concentrations, averaged over three years, are equal to or less than the standard.

c Concentration expressed first in units in which it was promulgated. Equivalent units given in parentheses are based upon a reference temperature of 25°C and a reference pressure of 760 torr. Most measurements of air quality are to be corrected to a reference temperature of 25°C and a reference pressure of 760 torr; ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.

d Any equivalent procedure which can be shown to the satisfaction of the California Air Resources Board to give equivalent results at or near the level of the air quality standard may be used.

e National Primary Standards: The levels of air quality necessary, with an adequate margin of safety to protect the public health.

f National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.

g Reference method as described by the US EPA. An "equivalent method" of measurement may be used but must have a "consistent relationship to the reference method" and must be approved by the US EPA.

h On October 1, 2015, the national 8-hour ozone primary and secondary standards were lowered from 0.075 to 0.070 ppm.

i To attain the 1-hour national standard, the 3-year average of the annual 98th percentile of the 1-hour daily maximum concentrations at each site must not exceed 100 ppb.

j On June 2, 2010, a new 1-hour $SO_2$ standard was established and the existing 24-hour and annual primary standards were revoked. To attain the 1-hour national standard, the 3-year average of the annual 99th percentile of the 1-hour daily maximum concentrations at each site must not exceed 75 ppb. The 1971 $SO_2$ national standards (24-hour and annual) remain in effect until one year after an area is designated for the 2010 standard, except that in areas designated non-attainment for the 1971 standards, the 1971 standards remain in effect until implementation plans to attain or maintain the 2010 standards are approved.

k On December 14, 2012, the national annual PM2.5 primary standard was lowered from 15 $\mu g/m^3$ to 12.0 $\mu g/m^3$.

l The California Air Resources Board has identified lead and vinyl chloride as 'toxic air contaminants' with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.

m The national standard for lead was revised on October 15, 2008 to a rolling 3-month average. The 1978 lead standard (1.5 µg/m3 as a quarterly average) remains in effect until one year after an area is designated for the 2008 standard, except that in areas designated non-attainment for the 1978 standard, the 1978 standard remains in effect until implementation plans to attain or maintain the 2008 standard are approved.

n In 1989, the California Air Resources Board converted both the general statewide 10-mile visibility standard and the Lake Tahoe 30-mile visibility standard to instrumental equivalents, which are "extinction of 0.23

**Table 3.2-4: Ambient Air Quality Standards**

| Pollutant | Average Time | California Standards[a] | | National Standards[b] | | |
|---|---|---|---|---|---|---|
| | | Concentration[c] | Method[d] | Primary[c,e] | Secondary[c,f] | Method[g] |
| per kilometer" and "extinction of 0.07 per kilometer" for the statewide and Lake Tahoe Air Basin standards, respectively. | | | | | | |

*Source: CARB, 2019.*

## State Regulations

### *California Clean Air Act*

The California Clean Air Act (CCAA), signed into law in 1988, requires all areas of the State to achieve and maintain the CAAQS by the earliest practical date. The CAAQS are established to protect the health of the most sensitive groups and apply to the same criteria air pollutants as the federal Clean Air Act and also includes State-identified criteria air pollutants, which are sulfates, visibility-reducing particles, hydrogen sulfide, and vinyl chloride (CARB, ND10). Table 3.2-4, provided above, shows the CAAQS currently in effect for each of the federally identified criteria air pollutants, as well as, state recognized pollutants, such as sulfates, visibility-reducing particles, hydrogen sulfide, and vinyl chloride.

### *Mobile Source Regulations*

Mobile sources are a significant contributor to the air pollution in California. CARB has established exhaust emission standards for automobiles, which are more stringent than the federal emissions standards.

Through its Mobile Sources Program, CARB has developed programs and policies to reduce emissions from on-road heavy-duty diesel vehicles. Specifically, the On-Road Heavy-Duty Diesel Vehicle Regulation requires diesel trucks and buses that operate in the State to be upgraded to reduce emissions. By January 1, 2023, nearly all vehicles must have engines certified to 2010 model year engines or equivalent.

The Innovative Clean Transit Program (ICT) sets emissions reduction standards for new public transit vehicles and requires major transit agencies to only purchase zero emission buses after 2029. The Solid Waste Collection Vehicle Regulation requires solid waste collection vehicles and heavy diesel-fueled on-road single engine cranes to be upgraded. The Rule for On-Road Heavy-Duty Diesel-Fueled Public and Utility Fleets requires fleets to install emission control devices on vehicles or purchase vehicles that run on alternative fuels or use advanced technologies to achieve emissions requirements by specified implementation dates. CARB also established an In-Use Off-Road Diesel-Fueled Fleets Regulation to impose limits on idling and require fleets to retrofit or replace older engines.

### *California Air Resources Board On-Road and Off-Road Vehicle Rules*

In 2004, CARB adopted an Airborne Toxic Control Measure (ATCM) to limit heavy-duty diesel motor vehicle idling in order to reduce public exposure to diesel PM and other TACs. The measure applies to diesel-fueled commercial vehicles with gross vehicle weight ratings greater than 10,000

pounds that are licensed to operate on highways, regardless of where they are registered. This measure does not allow diesel-fueled commercial vehicles to idle for more than 5 minutes at any given time.

In 2008, CARB approved the Truck and Bus Regulation to reduce $NO_X$, PM10, and PM2.5 emissions from existing diesel vehicles operating in California. The requirements were amended in December 2010 and apply to nearly all diesel fueled trucks and busses with a gross vehicle weight rating greater than 14,000 pounds. For the largest trucks in the fleet (i.e., those with a gross vehicle weight rating greater than 26,000 pounds), there are two methods to comply with the requirements. The first method is for the fleet owner to retrofit or replace engines, starting with the oldest engine model year, to meet 2010 engine standards, or better. This is phased over eight years, starting in 2015 and would be fully implemented by 2023, meaning that all trucks operating in the State subject to this option would need to meet or exceed the 2010 engine emission standards for $NO_X$ and PM by 2023. The second option, if chosen, requires fleet owners, starting in 2012, to retrofit a portion of their fleet with diesel particulate filters achieving at least 85 percent removal efficiency, so that by January 1, 2016, their entire fleet is equipped with diesel particulate filters. However, diesel particulate filters do not typically lower $NO_X$ emissions. Thus, fleet owners choosing the second method must still comply with the 2010 engine emission standards for their trucks and busses by 2020. Beginning January 1, 2020, this requirement will be enforced by the California Department of Motor Vehicles (DMV). In 2017, Senate Bill 1 (SB1), the Road Repair and Accountability Act of 2017, authorized the DMV to check that vehicles are compliant with, or exempt from CARB's Truck and Bus Regulation. If a vehicle is not compliant with the rule, DMV will no longer register that vehicle starting January 1, 2020.

In addition to limiting exhaust from idling trucks, CARB promulgated emission standards for off-road diesel construction equipment of greater than 25 horsepower such as bulldozers, loaders, backhoes and forklifts, as well as many other self-propelled off-road diesel vehicles. The regulation aims to reduce emissions by installation of diesel soot filters and encouraging the retirement, replacement, or repower of older, dirtier engines with newer emission-controlled models. Implementation is staggered based on fleet size (which is the total of all off-road horsepower under common ownership or control), with the largest fleets to begin compliance by January 1, 2014. Each fleet must demonstrate compliance through one of two methods. The first option is to calculate and maintain fleet average emissions targets, which encourages the retirement or repowering of older equipment and rewards the introduction of newer cleaner units into the fleet. The second option is to meet the Best Available Control Technology (BACT) requirements by turning over or installing Verified Diesel Emission Control Strategies (e.g., engine retrofits) on a certain percentage of its total fleet horsepower. The compliance schedule requires that BACT turn overs or retrofits be fully implemented by 2023 in all equipment in large and medium fleets and across 100 percent of small fleets by 2028.

### *Sustainable Communities and Climate Protection Act of 2008 (SB 375)*

SB 375 directs CARB to set regional targets for reducing greenhouse gas emissions from cars and light trucks (OPR, 2011). As part of the transportation planning process, each region's Metropolitan Planning Organization (MPO) is responsible for preparing a Sustainable Communities Strategies (SCS) that integrates transportation, land-use, and housing policies to plan for achievement of the emissions target for their region. Specifically, SB 375 focuses on reducing VMT and encouraging more compact, complete, and efficient communities. Further, SB 375 established CEQA

streamlining and relevant exemptions for projects that are determined to be consistent with the land use assumptions and other relevant policies of an adopted SCS.

## Regional Regulations

### *South Coast Air Quality Management District*

SCAQMD has jurisdiction over air quality planning for all of Orange County, Los Angeles County except for the Antelope Valley, the non-desert portion of western San Bernardino County, and the western and Coachella Valley portions of Riverside County. The Air Basin is a subregion within SCAQMD jurisdiction. While air quality in the Air Basin has improved, the Air Basin requires continued diligence to meet the air quality standards.

### *Air Quality Management Plan*

SCAQMD has adopted a series of Air Quality Management Plans (AQMPs) to meet the CAAQS and NAAQS, the 2012 and the 2016 AQMPs. While the 2016 AQMP is the most recent and was adopted by SCAQMD and CARB, it has not received US EPA approval for inclusion in the SIP. Therefore, until such time as the 2016 AQMP is approved by the US EPA, the 2012 AQMP remains the applicable AQMP; however, this analysis considers both the 2012 and 2016 AQMPs as appropriate.

The 2012 AQMP includes a comprehensive strategy aimed at controlling pollution from all sources, including stationary sources, and on-road and off-road mobile sources. It highlights the significant amount of emission reductions needed and the urgent need to identify additional strategies, especially in the area of mobile sources, to meet all federal criteria air pollutant standards within the timeframes allowed under the CAA (SCAQMD, 2013).

The key undertaking of the 2012 AQMP is to bring the Air Basin into attainment with the NAAQS for the 24-hour PM2.5 standard. It also intensifies the scope and pace of continued air quality improvement efforts toward meeting the 2024 8-hour $O_3$ standard deadline with new measures designed to reduce reliance on the CAA Section 182(e)(5) long-term measures for $NO_X$ and VOC reductions. SCAQMD expects exposure reductions to be achieved through implementation of new and advanced control technologies as well as improvement of existing technologies.

In 2017, the SCAQMD Governing Board adopted the 2016 AQMP (SCAQMD, 2017a) and CARB approved the 2016 AQMP. Key elements of the 2016 AQMP include implementing fair-share emissions reductions strategies at the federal, state, and local levels; establishing partnerships, funding, and incentives to accelerate deployment of zero and near-zero-emissions technologies; and taking credit from co-benefits from GHG, energy, transportation and other planning efforts (SCAQMD, 2017a). The strategies included in the 2016 AQMP are intended to demonstrate attainment of the NAAQS for the national non-attainment pollutants ozone and PM2.5 (SCAQMD, 2017a).

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

SCAQMD's CEQA guidelines are voluntary initiatives recommended for consideration by local planning agencies. The *CEQA Air Quality Handbook* (Handbook) published by SCAQMD provides local governments with guidance for analyzing and mitigating project-specific air quality impacts (SCAQMD, 1993). SCAQMD is currently updating some of the information and methods in the Handbook, such as the screening tables for determining the air quality significance of a project and the on-road mobile source emission factors. While this process is underway, SCAQMD recommends using other approved models to calculate emissions from land use projects, such as CalEEMod (SCAQMD, 2019).

The SCAQMD *Guidance Document for Addressing Air Quality Issues in General Plans and Local Planning* considers impacts on air quality sensitive receptors from TAC-emitting facilities (SCAQMD, 2005). SCAQMD's siting distance recommendations are the same as those provided by CARB (e.g., a 500-foot siting distance for air quality sensitive receptors proposed in proximity to freeways and high-traffic roads, and the same siting criteria for distribution centers and dry cleaning facilities).

The SCAQMD Final Localized Significance Threshold Methodology and Final Methodology to Calculate Particulate Matter (PM) 2.5 and PM2.5 Significance Thresholds provides guidance when evaluating the localized effects of emissions in the CEQA evaluation (SCAQMD, 2006; SCAQMD, 2008). These guidance documents were promulgated by the SCAQMD Governing Board as a tool to assist lead agencies to analyze localized impacts associated with project-specific level proposed projects. The guidance documents establish mass emission rate "look up tables" as significance thresholds for projects that are five acres or less. For projects that are larger than five acres, such as the Proposed Project, it is recommended that project-specific air quality dispersion modeling is completed to determine localized air quality (see the discussion on Air Dispersion Modeling, below, for more details).

### *South Coast Air Quality Management District Rules and Regulations*

Several SCAQMD rules, adopted to implement portions of the 2012 and 2016 AQMPs, may apply to the Proposed Project. The Proposed Project may be subject to the following SCAQMD rules and regulations:

**Regulation IV – Prohibitions:** This regulation sets forth the restrictions for visible emissions, odor nuisance, fugitive dust, various air emissions, fuel contaminants, start-up/shutdown exemptions and breakdown events. The following is a list of rules which apply to the Proposed Project:

- ***Rule 401 – Visible Emissions***: Rule 401 states that a person shall not discharge into the atmosphere from any single source of emission whatsoever any air contaminant for a period or periods aggregating more than three minutes in any one hour which is as dark or darker in shade as that designated No. 1 on the Ringelmann Chart or of such opacity as to obscure an observer's view.
- ***Rule 402 – Nuisance:*** Rule 402 states that a person shall not discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health or safety of any such persons or the public,

or which cause, or have a natural tendency to cause, injury or damage to business or property.

- ***Rule 403 – Fugitive Dust:*** Rule 403 requires projects to prevent, reduce or mitigate fugitive dust emissions from a site. Rule 403 restricts visible fugitive dust to a project property line, restricts the net PM10 emissions to less than 50 micrograms per cubic meter (µg/m3) and restricts the tracking out of bulk materials onto public roads. Additionally, projects must utilize one or more of the best available control measures, which may include adding freeboard to haul vehicles, covering loose material on haul vehicles, watering, using chemical stabilizers and/or ceasing all activities.

**Regulation XI – Source Specific Standards:** Regulation XI sets emissions standards for specific sources. The following is a list of rules which may apply to the Proposed Project:

- ***Rule 1113 – Architectural Coatings:*** This rule requires manufacturers, distributors, and end users of architectural and industrial maintenance coatings to reduce VOC emissions from the use of these coatings, primarily by placing limits on the VOC content of various coating categories.
- ***Rule 1138 – Control of Emissions from Restaurant Operations:*** This rule specifies PM and VOC emissions and odor control requirements for commercial cooking operations that use chain-driven charbroilers to cook meat.
- ***Rule 1146.2 – Emissions of Oxides of Nitrogen from Large Water Heaters and Small Boilers and Process Heaters:*** This rule requires manufacturers, distributors, retailers, refurbishers, installers, and operators of new and existing units to reduce $NO_X$ emissions from natural gas-fired water heaters, boilers, and process heaters as defined in this rule.
- ***Rule 1186 – PM10 Emissions from Paved and Unpaved Roads, and Livestock Operations:*** This rule applies to owners and operators of paved and unpaved roads and livestock operations. The rule is intended to reduce PM10 emissions by requiring the cleanup of material deposited onto paved roads, use of certified street sweeping equipment, and treatment of high-use unpaved roads (see also Rule 403).

**Regulation XIII – New Source Review (NSR):** Regulation XIII sets requirements for preconstruction review required under both federal and state statutes for new and modified sources located in areas that do not meet the Clean Air Act standards ("non-attainment" areas). NSR applies to both individual permits and entire facilities. Any permit that has a net increase in emissions is required to apply BACT. Facilities with a net increase in emissions are required to offset the emission increase by use of Emission Reduction Credits (ERCs). The regulation provides for the application, eligibility, registration, use and transfer of ERCs. For low emitting facilities, SCAQMD maintains an internal bank that can be used to provide the required offsets. In addition, certain facilities are subject to provisions that require public notice and modeling analysis to determine the downwind impact prior to permit issuance.

**Regulation XIV – Toxics and Other Non-Criteria Air Pollutants:** Regulation XIV sets requirements for new permit units, relocations, or modifications to existing permit units which emit toxic air contaminants or other non-criteria air pollutants. The following is a list of rules which may apply to the Proposed Project:

- ***Rule 1401 – New Source Review of Toxic Air Contaminants:*** Rule 1401 regulates new or modified facilities to limit cancer and non-cancer health risks from facilities located within the SCAQMD jurisdiction.
- ***Rule 1402 – Control of Toxic Air Contaminants from Existing Sources:*** Rule 1402 regulates facilities that are already operating in order to limit cancer and non-cancer health risks. Rule 1402 incorporates the requirements and methodology of the AB 2588 Air Toxics "Hot Spots" program.
- ***Rule 1403 – Asbestos Emissions from Demolition/Renovation Activities:*** Rule 1403 requires owners and operators of any demolition or renovation activity and the associated disturbance of asbestos-containing materials, any asbestos storage facility, or any active waste disposal site to implement work practice requirements to limit asbestos emissions from building demolition and renovation activities, including the removal and associated disturbance of asbestos-containing materials (see Section 3.8 Hazards and Hazardous Materials).
- ***Rule 1470 – Requirements for Stationary Diesel-Fueled Internal Combustion and Other Compression Ignition Engines:*** Rule 1470 applies to stationary compression ignition (CI) engine greater than 50 brake horsepower and sets limits on emissions and operating hours. In general, new stationary emergency standby diesel-fueled engines greater than 50 brake horsepower are not permitted to operate more than 50 hours per year for maintenance and testing.

*SCAG Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS)*

The Southern California Association of Governments (SCAG) is the MPO for the region in which the City of Diamond Bar is located. In 2016, SCAG adopted the 2016 Regional Transportation Plan/Sustainable Communities Strategy: A Plan for Mobility, Accessibility, Sustainability and a High Quality of Life (RTP/SCS), which is an update to the previous 2012 RTP/SCS (SCAG, 2016).

The 2016 RTP/SCS considers the role of transportation in the broader context of economic, environmental, and quality-of-life goals for the future, identifying regional transportation strategies to address mobility needs. The 2016 RTP/SCS describes how the region can attain the GHG emission-reduction targets set by CARB by achieving an 8 percent reduction in passenger vehicle GHG emissions on a per capita basis by 2020, 18 percent reduction by 2035, and 21 percent reduction by 2040 compared to the 2005 level. Although the focus of the 2016 RTP/SCS is on GHG emission-reduction, compliance with and implementation of 2016 RTP/SCS policies and strategies would also have co-benefits of reducing per capita criteria air pollutant and TAC emissions associated with reduced per capita VMT. Improved air quality with implementation of the 2016 RTP/SCS policies would decrease reactive organic gases (ROG) (i.e., VOCs) by 8 percent, CO by 9 percent, NOx by 9 percent, and PM2.5 by 5 percent (SCAG, 2016).

SCAG's 2016 RTP/SCS builds on the land use policies that were incorporated into the 2012 RTP/SCS, and provides specific strategies for successful implementation. These strategies include

development of "complete communities," defined as mixed-use districts that concentrate housing, employment, and a mix of retail and services in close proximity to each other; encouraging employment development around current and planned transit stations and neighborhood commercial centers; encouraging the implementation of a "complete streets" policy that meets the needs of all users of the streets, roads and highways including bicyclists, children, persons with disabilities, motorists, electric vehicles, movers of commercial goods, pedestrians, users of public transportation, and seniors; and supporting alternative fueled vehicles. The 2016 RTP/SCS overall land use pattern reinforces the trend of focusing new housing and employment in infill areas well served by transit.

In addition, the 2016 RTP/SCS includes goals and strategies to promote active transportation and improve transportation demand management (TDM). The 2016 RTP/SCS strategies support local planning and projects that serve short trips, increase access to transit, expand understanding and consideration of public health in the development of local plans and projects, and support improvements in sidewalk quality, local bike networks, and neighborhood mobility areas. The 2016 RTP/SCS proposes to better align active transportation investments with land use and transportation strategies, increase competitiveness of local agencies for federal and state funding, and to expand the potential for all people to use active transportation.

In 2016, CARB accepted SCAG's quantification of GHG emission reductions from the 2016 RTP/SCS and the determination that the 2016 RTP/SCS would, if implemented, achieve the 2020 and 2035 GHG emission reduction targets established by CARB (SCAG, 2016).

## Local Regulations

### *City of Diamond Bar Building Code*

The City of Diamond Bar has not yet adopted a sustainability plan or GHG reduction plan; however, the proposed Climate Action Plan, if adopted, will serve as the City's Qualified GHG Reduction Strategy. Further, the City has adopted latest edition of the California Green Building Standards Code (CALGreen). CALGreen, which applies to all new buildings (residential and non-residential), increases energy efficiency and reduces waste. Green building standards also have the co-benefit of reducing criteria pollutant emissions through the increase in energy efficiencies. CALGreen mandates green building requirements throughout California. Diamond Bar's adoption of CALGreen includes local, more restrictive amendments deemed necessary to account for local climatic, geological and topographical conditions.

### *Los Angeles County General Plan, Air Quality Element*

The Air Quality Element of the Los Angeles County General Plan (County of Los Angeles, 2015) outlines goals and policies in the General Plan that will improve air quality and reduce greenhouse gas emissions.

### *Los Angeles County Renewable Energy Ordinance*

The Renewable Energy Ordinance (REO) became effective on January 12, 2017. The REO updates the County's planning and zoning code for the review and permitting of solar and wind energy projects. The ordinance helps California meet its goals for renewable energy generation and greenhouse gas reduction, while minimizing environmental and community impacts.

*Los Angeles County Green Building Standards*

As stated, the California Green Building Standards are applicable statewide. Los Angeles County adopted CALGreen under Title 31 of the Los Angeles County Code.

# Impact Analysis

## SIGNIFICANCE CRITERIA

For the purposes of this EIR, a significant adverse impact would occur if implementation of the Proposed Project would:

**Criterion 1:** **Conflict with or obstruct implementation of the applicable air quality plan;**

**Criterion 2:** **Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard;**

**Criterion 3:** **Expose sensitive receptors to substantial pollutant concentrations; or**

**Criterion 4:** **Result in other emissions (such as those leading to odors adversely affecting a substantial number of people).**

## METHODOLOGY AND ASSUMPTIONS

### Construction

*Regional*

Construction of the growth anticipated by the Proposed Project would have the potential to temporarily emit criteria air pollutant emissions through the use of heavy-duty construction equipment, such as excavators, cranes, and forklifts, and through vehicle trips generated from workers and haul trucks traveling to and from project sites. In addition, fugitive dust emissions would result from demolition and various soil-handling activities. As previously described, construction emissions of VOC, $NO_X$, CO, $SO_2$, PM10 and PM2.5 are included in this analysis. Construction emissions can vary substantially from day-to-day, depending on the intensity and specific type of construction activity. The maximum daily regional emissions are predicted values for the worst-case day and do not represent the emissions that would actually occur during every day of construction.

The Proposed Project is a planning-level document, and, as such, there are no specific projects, project construction dates, or specific construction plans identified. Therefore, quantification of emissions associated with buildout cannot be specifically determined at this time. However, the type and size of total anticipated growth is known. Construction emissions are based on the type and amount of off-road construction equipment and the size of the project. Therefore, since CalEEMod provides default construction scenarios based on size and land use type, a reasonable

worst case annual construction scenario was analyzed to provide an idea of daily emissions that could occur due to construction under the Proposed Project.[2]

Construction was estimated to begin in January of 2020 and continue throughout 2040. Construction emissions were forecast based on an expectation that a maximum of 10 percent of the total new development could be developed in any year (i.e., 20 years of development at an even annual rate equals 5 percent per year; therefore, conservatively assume a maximum year of twice as much development at 10 percent). Emission calculations assumed construction in 2020 as a conservative peak emissions year. In a year later, construction emissions would be less because cleaner construction equipment and vehicle fleet mix are expected as a result of State regulations that require cleaner construction equipment to be phased-in for heavy-duty equipment (CARB, 2010b). Thus, construction emissions occurring in later years would be less than the impacts disclosed herein.

Construction activities would include demolition, site preparation, excavation/grading, building construction, paving, and architectural coating. CalEEMod defaults were used to determine construction equipment based on the type of construction. Modeling assumed 12 single-family residential units, 377 multi-family residential units, 182,058 square feet of non-residential buildings, and 1.23 acres of parks could be developed in any one year, or 10% of the total growth anticipated. The modeling also assumes that 20,300 square feet of existing light industrial uses would be demolished in a given year. The modeling assumes project development would be infill development (i.e., within existing development). Project construction assumed earthmoving (i.e., excavation and grading) cut and fill of soil would be balanced onsite, to minimize soil import or export by haul trucks. Heavy-duty equipment, vendor supply trucks and concrete trucks would be used during construction of foundations, parking structures, and buildings. Landscaping and architectural coating would occur during the finishing activities.

Daily regional criteria air pollutant emissions for the different phases of construction were forecast based on construction activities, on-road and off-road mobile sources, and fugitive dust emission factors associated with the specific construction activity. Off-road mobile source emissions would result from the use of heavy-duty construction equipment such as bulldozers, loaders, and cranes. These off-road mobile sources emit VOC, $NO_X$, CO, $SO_2$, PM10 and PM2.5. The emissions were estimated using CalEEMod (Version 2016.3.2) software, an emissions inventory software program recommended by the SCAQMD. CalEEMod is based on outputs from the OFFROAD model and EMission FACtor (EMFAC) model, which are emissions estimation models developed by CARB and used to calculate emissions from construction activities, heavy-duty off-road equipment, and on-road vehicles. Activities parameters, such as number of equipment and equipment usage hours were provided by the future applicant.

Fugitive dust emissions (using PM10 as a surrogate) during construction activities were estimated in CalEEMod, which are based on the methods described in the US EPA AP-42 Compilation of Air Pollutant Emission Factors. During the application of architectural coatings, evaporation of solvents contained in surface coatings result in VOC emissions. CalEEMod was used to calculate

[2] Note that CalEEMod estimates daily emissions based on the size and type of the development (determined as 10% of total buildout per year and broken down into smaller "projects), the number of days that would be needed to complete the activity (CalEEMod default) and the amount of equipment and employees that would be needed to accomplish construction (CalEEMod default).

VOC emissions based on the building surface area and the default VOC content provided by the air district or CARB's statewide limits. Asphalt paving of parking areas are another source of VOC emissions. CalEEMod was used to calculate VOC off-gassing emissions based on the parking lot size and SCAQMD default emission factors.

On-road mobile sources during construction also have the potential to generate temporary criteria air pollutant emissions through worker vehicles and haul trucks traveling to and from project sites during construction. Mobile source emissions were calculated using VMT data provided in Chapter 3.12: Transportation, which takes into account mode and trip lengths. CalEEMod default vehicle trips and trip lengths were used. However, traffic reduction policies within the General Plan Circulation element, which the regional travel demand model is not sensitive to (such as connectivity in neighborhoods, presence of bicycle and pedestrian facilities, and transportation demand management measures), are not reflected in these estimates. Therefore, estimated mobile source emissions are conservatively higher.

Emission factors for passenger vehicles and heavy-duty trucks used the regional emission factors generated from the EMFAC model 2017 (EMFAC2017), because although EMFAC2017 has not been approved by the US EPA, EMFAC2017 "represents [California Air Resources Board's] current understanding of motor vehicle travel activities and their associated emission levels." Although CARB restricts idling times to no more than 5 minutes at any one location, it was conservatively assumed that truck idling activities would total 15 minutes per trip, representing three separate 5-minute idling occurrences: check-in to the Project Site or queuing at the site boundary upon arrival, on-site idling during loading/unloading, and check-out of the Project Site or queuing at the site boundary upon departure.

*Local*

The localized effects from the on-site portion of daily construction emissions are evaluated at nearby sensitive receptor locations potentially impacted by implementation of the growth anticipated by the Proposed Project consistent with the SCAQMD's Localized Significance Thresholds (LST) methodology, which provides guidance on analyzing localized emissions for comparison to state and federal ambient air quality standards (AAQS). LSTs are only applicable to the following criteria pollutants: NOx, CO, PM10, and PM2.5. LSTs represent the maximum emissions from a project that are not expected to cause or contribute to an exceedance of the most stringent applicable AAQS, and are developed based on the ambient concentrations of that pollutant for each source receptor area (SRA) and distance to the nearest sensitive receptor. For PM10 and PM2.5, LSTs were derived based on requirements in SCAQMD Rule 403, Fugitive Dust.

Construction emissions are based on the daily operation of construction equipment, which is determined by CalEEMod based on size of the development and the area to be disturbed during construction. Based on the anticipated 10 percent development per year, the modeling assumed a total of 5 individual development projects could occur on any given day, therefore the localized analysis was conducted based on the default acreages assigned in CalEEMod for the potential development of each land use type. Single-family and multi-family residential development assumed approximately 5 and 13 acres of development, respectively, whereas non-residential development assumed approximately 2 acres of development. For conservative purposes, the localized analysis assumed the nearest sensitive receptors would be within 25 meters of

construction activities. Therefore, the LST analysis uses the mass-rate look-up tables at 25 meters for 5 acres for residential projects and 2 acres for non-residential projects located within SRA 10.

## Operational

### *Regional*

Operation of development allowed by the proposed General Plan would generate criteria air pollutant emissions from vehicle trips throughout the City, energy sources, such as natural gas combustion, and area sources, such as operation of landscaping equipment and use of consumer products, including solvents used in non-industrial applications which emit VOCs during their product use, such as cleaning supplies, kitchen aerosols, cosmetics and toiletries. Operational impacts were assessed for the full Proposed Project buildout year of 2040, as well as, the existing uses. Daily maximum criteria air pollutant emissions were compared with the SCAQMD operational thresholds to determine the operational impacts of the Proposed Project.

VMT data, which takes into account mode and trip lengths, was developed for the transportation analysis presented in Chapter 3.12: Transportation. Emissions from motor vehicles are dependent on vehicle type. Thus, the emissions were calculated using a representative motor vehicle fleet mix for the Proposed Project based on EMFAC2017 and default fuel type. CARB's EMFAC2017 was used to generate emissions factors for operational mobile sources based on fuel type and vehicle class. However, traffic reduction policies within the General Plan Circulation element, which the regional travel demand model is not sensitive to (such as connectivity in neighborhoods, presence of bicycle and pedestrian facilities, and transportation demand management measures), are not reflected in these estimates. Therefore, estimated mobile source emissions are conservatively higher.

The operational area emissions from the Proposed Project were estimated using the CalEEMod software. Area source emissions are based on hearth emissions, architectural coatings, landscaping equipment, and consumer product usage rates provided in CalEEMod. CalEEMod default values were used for area source emissions except that wood stoves and wood fireplaces were removed from the emissions calculations as they are not permitted within SCAQMD's jurisdiction.

Natural gas consumption values used in the GHG inventories for the Climate Action Plan were used for determining energy emissions. Emissions were calculated outside of CalEEMod using CalEEMod emission factors. Natural gas consumption for buildout was adjusted to take into account the 2019 Title 24 standards which will be in place prior to beginning construction.

### *Local*

#### LST

The localized effects from the on-site portion of daily operational emissions are dependent on the exact size, nature, and location of an individual land use type, combined with reductions in localized impacts from the removal of existing land use types as applicable (i.e. conversion of light industrial uses). Because no specific development projects are identified under the General Plan Update, the location of development projects, and the exact nature of the potential development are unknown, determining localized impacts from operational activities at this time is speculative. Therefore, the analysis of localized impacts is discussed qualitatively in this analysis.

Intersection Hotspot Analysis

Operation of the Proposed Project has the potential to generate traffic congestion and increase delay times at intersections within the local study area. The pollutant of primary concern when assessing the Proposed Project's impacts at local intersections is CO because an elevated concentration of CO tends to accumulate near areas of heavy traffic congestion and where average vehicle speeds are low. Tailpipe emissions are of concern when assessing localized impacts of CO along paved roads.

An adverse concentration of CO, known as a "hotspot," would occur if there was an exceedance of the NAAQS or CAAQS. SCAQMD does not currently have guidance for conducting intersection hot spot analysis. However, Caltrans has guidance for evaluating CO hot spots in their Transportation Project-Level Carbon Monoxide Protocol (CO Protocol) (Caltrans, 1997). Detailed guidance discussing which modeling programs to use, calculating emission rates, receiver placement, calculating 1-hour and 8-hour concentrations, and utilizing background concentrations are provided in the Caltrans' CO Protocol.

The potential for the Project to cause or contribute to CO hotspots is evaluated by comparing project intersections (both intersection geometry and traffic volumes) with prior studies conducted by SCAQMD in support of their AQMPs and considering existing background CO concentrations.

*Toxic Air Contaminants Impacts (Construction and Operations)*

Construction and operational activities have the potential to result in health risk impacts (cancer, or other acute or chronic conditions) related to TACs exposure from airborne emissions, specifically the emissions of diesel particulate matter. Health risk is a cumulative localized impact based exposure of nearby sensitive receptors to specific construction activities as well as on location to the construction and operational activities that emit TACs. Because there are no specific development projects identified under the General Plan Update, the location of the development projects, and the exact nature of the development are unknown, determining health risk as this time is speculative. Therefore, the analysis of health risk is discussed qualitatively in this analysis.

*Climate Action Plan*

The proposed CAP, once adopted, will serve as a Qualified GHG Reduction Strategy, enabling streamlined environmental review of future development projects, in accordance with CEQA. The future emissions inventory for the City of Diamond Bar incorporates reductions from State actions, General Plan land use and circulation system, and additional General Plan policies. This analysis shows that projected GHG emissions in 2030 and in 2040 will be well below the standards established in the 2017 CARB Scoping Plan. Thus, additional GHG reduction actions are not required for City of Diamond Bar to have and maintain a Qualified GHG Reduction Strategy. The proposed CAP does not contain additional specific measures to reduce GHG emissions and energy use from future development, nor does it incorporate land use changes. Therefore, impacts on air quality from the proposed CAP are considered less than significant and are not discussed further.

## IMPACTS

### Impact 3.2-1 Implementation of the Proposed Project would not conflict with or obstruct implementation of the applicable air quality plan. (*Less than Significant*)

The following analysis addresses the Proposed Project's consistency with applicable plans and policies that govern air quality. In particular, the analysis addresses consistency with SCAQMD's AQMP, which, as discussed above, is an air quality plan that includes strategies for achieving attainment of applicable ozone, PM10, and PM2.5 standards.

As discussed above, SCAQMD has adopted a series of AQMPs to lead the Air Basin into compliance with several criteria air pollutant standards and other federal requirements, while taking into account construction and operational emissions associated with population and economic growth projections provided by SCAG's 2016 RTP/SCS (SCAG, 2016). SCAQMD recommends that, when determining whether a project is consistent with the relevant AQMPs, the lead agency should assess whether the project would directly obstruct implementation of the plans by impeding SCAQMD's efforts to achieve attainment with respect to any criteria air pollutant for which it is currently not in attainment of the NAAQS and CAAQS (e.g., ozone, PM10, and PM2.5) and whether it is consistent with the demographic and economic assumptions (typically land use related, such as employment and population/residential units) upon which the plan is based. SCAQMD guidance indicates that projects whose growth is included in the projections used in the formulation of the AQMP are considered to be consistent with the plan and would not interfere with its attainment.

SCAQMD thresholds for construction and operational emissions are designed for the analysis of individual projects and not for long-term planning documents, such as the City of Diamond Bar's General Plan Update, which will be implemented over a 20-year period. Emissions are dependent on the exact size, nature, and location of an individual land use type, combined with reductions in localized impacts from the removal of existing land use types, as applicable (i.e. conversion of light industrial uses). Emissions associated with the operation of individual projects, could exceed project-specific thresholds established by SCAQMD.

CEQA requires that general plans be evaluated for consistency with the AQMP. Because the AQMP strategy is based on projections from local general plans, only new or amended general plan elements, specific plans, or individual projects under the general plan need to undergo a consistency review. Projects considered consistent with the local general plan are consistent with the air quality-related regional plan. Indicators of consistency include:

- Control Strategies: Whether implementation of a project would increase the frequency or severity of existing air quality violations; would cause or contribute to new violations; or would delay the timely attainment of AAQS or interim emissions reductions within the AQMP.
- Growth Projections: Whether implementation of the project would exceed growth assumptions within the AQMP, which in part, bases its strategy on growth forecasts from local general plans.

*Construction*

Control Strategies

The Air Basin is designated nonattainment for O3 and PM2.5 under the CAAQS and NAAQS, nonattainment for lead (Los Angeles County only) under the NAAQS, and nonattainment for PM10 under the CAAQS. The Proposed Project involves long-term growth associated with buildout of the City of Diamond Bar, therefore the emissions of criteria pollutants associated with future developments under the Proposed Project could exceed SCAQMD thresholds for criteria pollutants. Future development projects under the City's General Plan Update would be required to comply with CARB's requirements to minimize short-term emissions from on-road and off-road diesel equipment, including the ATCM to limit heavy-duty diesel motor vehicle idling to no more than 5 minutes at any given time, and with SCAQMD's regulations such as Rule 403 for controlling fugitive dust and Rule 1113 for controlling VOC emissions from architectural coatings. Furthermore, as applicable to the type of growth, individual projects under Proposed General Plan would comply with fleet rules to reduce on-road truck emissions (i.e., 13 CCR, Section 2025 (CARB Truck and Bus regulation)). Compliance with these measures and requirements would be consistent with and meet or exceed the AQMP requirements for control strategies intended to reduce emissions from construction equipment and activities. Therefore, the construction anticipated by the Proposed Project would be consistent with the AQMP under the first indicator.

Growth Projections

The Proposed Project would result in an increase in short-term employment compared to existing conditions. Although the construction anticipated by the Proposed Project will generate construction workers, it would not necessarily create new construction jobs, construction-related jobs generated by the Proposed Project would likely be filled by employees within the construction industry within the City of Diamond Bar and the greater Los Angeles County region. Construction industry jobs generally have no regular place of business, as construction workers commute to job sites throughout a given region, which may change several times a year. Moreover, these jobs would be temporary in nature. Therefore, the construction jobs generated by the Proposed Project would not conflict with the long-term employment or population projections upon which the AQMPs are based.

*Operation*

Control Strategies

Future development under the Proposed Project would be required to comply with CARB motor vehicle standards, SCAQMD regulations for stationary sources and architectural coatings, Title 24 energy efficiency standards, and, to the extent applicable, to the 2016 RTP/SCS.

As discussed above, the AQMP includes land use and transportation strategies from the 2016 RTP/SCS that are intended to reduce VMT and resulting regional mobile source emissions. The applicable land use strategies include: planning for growth around livable corridors; providing more options for short trips/neighborhood mobility areas; supporting zero emission vehicles & expanding vehicle charging stations; supporting local sustainability planning. The applicable transportation strategies include: managing through the Transportation Demand Management (TDM) Program and the Transportation System Management (TSM) Plan including advanced

ramp metering, and expansion and integration of the traffic synchronization network; promoting active transportation. The majority of the transportation strategies are to be implemented by cities, counties, and other regional agencies such as SCAG and SCAQMD, although some can be furthered by individual development projects.

The location, design, and land uses of the growth anticipated by the Proposed Project would implement land use and transportation strategies related to reducing vehicle trips for residents and employees of the City by increasing commercial and residential density near public transit with the new land use designations such as Town Center Mixed-Use, Neighborhood Mixed-Use, and Transit-Oriented Mixed-Use. The City of Diamond Bar is served by Foothill Transit and the Orange County Transportation Authority (OCTA). The City of Diamond Bar is also served by the Metrolink Riverside Line along the northwestern boundary of the City, which runs from Downtown Riverside to Union Station in Downtown Los Angeles and provides service Monday to Friday. Transit facilities in the City of Diamond Bar consist of bus stops for Foothill Transit buses along Diamond Bar Boulevard, Golden Springs Drive, and other roads. OCTA bus stops are on Brea Canyon Road. The Metrolink station can be accessed via Brea Canyon Road. A significant portion of the bus stops and station in the City have a bench or a shaded bus shelter. The availability of public transportation and the focus on increasing density relative to the existing public transportation, enables the Proposed Project to potentially reduce vehicle trips, VMT, and associated transportation-related emissions per capita, compared to the existing conditions. Therefore, the City's General Plan Update would result in a less than significant impact associated with air quality. The Proposed Project would be consistent with the AQMP under the first indicator.

Growth Projections

The Emissions inventory for the South Coast Air Basin is formed, in part, by existing city and county general plans. The AQMP is based on population, employment and VMT forecasts by SCAG. A project might be in conflict with the AQMP if the development is greater than that anticipated in the local general plan and SCAG's growth projections. Future development in the City of Diamond Bar that is consistent with the City's General Plan Update would increase vehicle trips and VMT that would result in emissions of ozone precursors and particulate matter. Individual projects under the City's General Plan Update would be required to undergo subsequent environmental review pursuant to CEQA, and would be required to demonstrate compliance with the AQMP. Individual projects would also be required to demonstrate compliance with SCAQMD rules and regulations governing air quality.

The City of Diamond Bar continues to coordinate with SCAQMD and SCAG to ensure city-wide growth projections, land use planning efforts, and local development patterns are accounted for in the regional planning and air quality planning processes. Therefore, the operation of the proposed General Plan Update and associated CAP would not conflict with or obstruct the implementation of the applicable air quality plan. The proposed policies of the General Plan listed below would potentially reduce emissions, which would address potential impacts related to conflicts with an applicable air quality plan.

*Proposed General Plan Policies that Address the Impact*

Land Use

LU-G-4 Locate new residential growth in or adjacent to mixed-use centers and transit stations to support regional and statewide efforts to encourage sustainable land use planning and smart growth.

LU-G-9 Provide for the concentration of office and commercial uses near regional access routes, transit stations, and existing and proposed employment centers.

LU-P-17 Require that site designs create active street frontages and introduce pedestrian-scaled street networks and street designs.

LU-P-34 Require that development evaluates and mitigates noise and air quality issues related to the proximity of the SR 60 and Metrolink.

LU-P-49 Require convenient, attractive, and safe pedestrian, bicycle, and transit connections both within the Community Core area and between the center and surrounding neighborhoods and other destinations within Diamond Bar.

Circulation

CR-P-6 Require that all new development study the impact of Vehicle Miles Traveled (VMT) and implement congestion mitigation measures to ensure that new projects do not significantly increase local city congestion based on defined Levels of Service (LOS) standards.

CR-P-32 Provide pedestrian and bicycle connectivity in existing residential neighborhoods, utility easements, and/or flood control channels, including connections through cul-de-sacs to other streets or community facilities where feasible.

CR-P-33 Ensure that new development integrates with Diamond Bar's bicycle and pedestrian networks by requiring developers to provide sidewalks and bicycle infrastructure on local streets.

CR-P-55 Incorporate common bicycle parking requirements for appropriate uses— including multifamily residential and office—in the Municipal Code.

CR-P-56 Establish requirements to provide dedicated parking and charging stations for Electric Vehicles.

Resource Conservation

RC-P-10. Require new development to preserve mature native trees including oak and walnut, and trees of significant cultural or historical value such as sycamore and arroyo willow, etc., as set forth under the Diamond Bar Tree Preservation and Protection Ordinance. Review the ordinance periodically and update it as necessary to reflect current best practices.

RC-P-19 Require new development to reduce the waste of potable water through the use of drought-tolerant plants, efficient landscape design and application, and reclaimed water systems.

RC-P-20 Require the implementation of the latest water conservation technologies into new developments.

RC-P-21 Require builders to provide information to prospective buyers or tenants within the City of Diamond Bar regarding drought-tolerant planting concepts.

RC-P-22 Require the use of mulch in landscape areas to improve the water holding capacity of the soil by reducing evaporation and soil compaction in accordance with the standards set forth by state law and the City's Water-Efficient Landscape Ordinance.

RC-P-28. Encourage new development to minimize impacts on air quality through the following measures:

a. Use of building materials and methods that minimize air pollution.
b. Use of fuel-efficient heating equipment, and other appliances, such as water heaters, swimming pool heaters, cooking equipment, refrigerators, furnaces, boiler units, and low or zero-emitting architectural coatings.
c. Use of clean air technology beyond what is required by South Coast Air Quality Management District (SCAQMD), leveraging State and local funding sources.

RC-P-30 Ensure that new development projects are designed and implemented to be consistent with the South Coast Air Quality Management Plan.

RC-P-33. Consult with SCAQMD when siting new facilities with dust, odors, or Toxic Air Contaminant (TAC) emissions to avoid siting those facilities near sensitive receptors and avoid siting sensitive receptors near sources of air pollution. Require proposed land uses that produce TACs to incorporate setbacks and design features that reduce TACs at the source to minimize potential impacts from TACs. For new or modified land uses that have the potential to emit dust, odors, or TACs that would impact sensitive receptors require the business owners to notify the SCAQMD, and residents and businesses adjacent to the proposed use prior to business license or building permit issuance. (New from SCAQMD Guidance)

RC-P-34 For new or modified land uses that have the potential to emit dust, odors, or TACs that would impact sensitive receptors require the business owners to notify the SCAQMD, and residents and businesses adjacent to the proposed use prior to business license or building permit issuance.

RC-P-35 Require new residential developments and other sensitive uses within the 500-foot AQMD buffer (e.g. schools, daycare centers, playgrounds, and medical facilities) to prepare an air quality study of the site that evaluates potential impacts of air pollution on sensitive receptors and associated health risks and identifies measures to feasibly mitigate any impacts to protect the health of residents.

RC-P-37 Require construction and grading plans to include state and AQMD mandated measures to the maximum extent possible fugitive dust and pollutants generated by construction activities and those related to vehicle and equipment cleaning, fueling and maintenance as well as mono-nitrogen oxides (NOx) emissions from vehicle and equipment operations.

RC-P-43 Design traffic plans, including suggested truck routes, to minimize diesel truck idling and the exposure of residential neighborhoods and sensitive receptors to diesel truck traffic.

Community Health and Sustainability

CHS-P-3 Promote physical activity and active transportation programs through events sponsored by the City, particularly the Parks & Recreation Department.

CHS-P-4 Remove barriers and improve multi-modal mobility throughout the City for all community members by supporting transit, pedestrian, and bicycle connections between residential neighborhoods and major destinations, including parks, civic facilities, school campuses, other educational institutions, employment centers, shopping destinations, parks, and recreation areas, where appropriate.

CHS-P-5 Implement street design features that facilitate walking and biking in both new and established areas. Require a minimum standard of these features for all new developments.

CHS-P-14 Develop and incorporate "destinations"—such as the clusters of commercial uses that draw residents from the entire community into the Neighborhood Mixed Use, the Transit-Oriented Mixed Use, and the Town Center focus areas.

CHS-P-15 Establish opportunities for gathering areas in new neighborhoods.

CHS-P-33 Plan land uses to reduce vehicle miles traveled (VMT), prioritizing infill development and incorporating vertical and horizontal mixed-use development, public transit, and active transportation facilities where appropriate, recognizing that the transportation sector is the largest source of GHG emissions in Diamond Bar and in California more broadly.

CHS-P-38 Accelerate the adoption of rooftop and parking lot solar power and/or other alternative energy usage on developed sites in Diamond Bar through actions such as:

a. Establishing incremental growth goals for solar power/alternative energy systems in Diamond Bar;
b. Developing guidelines, recommendations, and examples for cost-effective solar and/or other alternative energy-based installation; and
c. Installing solar/alternative energy technology on available City spaces.

CHS-P-40 Require the inclusion, where feasible, of provisions for energy-efficient modes of transportation and fixed facilities that establish public transit, bicycle, and pedestrian modes as safe, efficient, and desirable alternatives.

CHS-P-41 Support the use of clean fuel and "climate friendly" vehicles in order to reduce energy use, energy cost, and greenhouse gas emissions by residents, businesses, and City government activities.

CHS-P-44 Promote energy conservation and retrofitting of existing buildings through the implementation of the Green Building Codes.

CHS-P-57 Encourage water conservation, drought-tolerant landscaping and the use of greywater and reclaimed and recycled water, where appropriate, with a view to reducing water use.

CHS-P-58 Encourage the installation of green roofs and cool (reflective) roofs to reduce temperatures of roof surfaces and the surrounding air.

*Mitigation Measures*

None required.

### Impact 3.2-2 Implementation of the Proposed Project would result in a cumulatively considerable net increase of criteria pollutants for which the project region is non-attainment under an applicable federal or state ambient air quality standard. (*Significant and Unavoidable*)

Ozone, $NO_2$, VOC and PM10 and PM2.5 are pollutants of concern, as the South Coast Air Basin has been designated as a nonattainment area for State ozone, PM10 and PM2.5 and as a federal nonattainment area for ozone and PM10.[3] The South Coast Air Basin is currently in attainment for State and Federal CO, SOx and $NO_2$ and federal attainment for PM10. SCAQMD has established numerical significance thresholds for regional emissions during construction and operation. The numerical significance thresholds are based on the recognition that the Air Basin is a distinct geographic area with a critical air pollution problem for which ambient air quality standards have been promulgated to protect public health (SCAQMD, 1993). The Proposed Project would potentially cause or contribute to an exceedance of an ambient air quality standard if the following would occur:

Regional construction emissions from both direct and indirect sources would exceed any of the following SCAQMD prescribed daily emissions thresholds (SCAQMD, 2015b):

- 75 pounds a day for VOC,
- 100 pounds per day for $NO_X$,

[3] The Los Angeles County portion of the South Coast Air Basin has been designated as a partial nonattainment area for lead. While the SCAQMD CEQA Air Quality Handbook contains numerical indicators of significance for lead, project construction and operation would not include sources of lead emissions and would not exceed the numerical indicators for lead. Unleaded fuel and unleaded paints have virtually eliminated lead emissions from commercial land use projects that may occur under the Proposed Project. As a result, lead emissions are not further evaluated in this Draft EIR.

- 150 pounds per day for PM10, and
- 55 pounds per day for PM2.5.

Regional operational emissions exceed any of the following SCAQMD prescribed daily emissions thresholds (SCAQMD, 2015b):

- 55 pounds a day for VOC,
- 55 pounds per day for $NO_X$,
- 150 pounds per day for PM10, and
- 55 pounds per day for PM2.5.

*Construction*

Construction of the growth anticipated by the proposed General Plan has the potential to temporarily emit criteria air pollutant emissions through the use of heavy-duty construction equipment, and through vehicle trips generated by workers and haul trucks. In addition, fugitive dust emissions would result from demolition and various soil-handling activities. Mobile source emissions, primarily $NO_X$ and PM emissions (i.e., PM10 and PM2.5), would result from the use of diesel-powered on- and off-road vehicles and equipment. Construction emissions can vary substantially from day-to-day, depending on the level of activity and the specific type of construction activity.

Information regarding the specific development projects and location of receptors for those projects is required in order to model specific emissions throughout the buildout horizon. Construction activities are anticipated to occur at various levels throughout the 20-year buildout horizon (2020 to 2040). Since specific projects are unknown at this time, as is the level of intensity of construction over the 20 years, the analysis provides emissions from an anticipated reasonable worst-case construction scenario. Conservatively it was assumed that 10 percent of total buildout would be constructed in one year.

As detailed in the methodology section above, daily emissions were estimated for the construction of a single-family residential project (including a park), a multi-family residential project and three non-residential projects. As timing of construction is unknown, it was assumed that the phase with the greatest emissions from each of the five projects would overlap. Detailed calculations for all individual phases are included in Appendix B. The results of the criteria air pollutant calculations are presented in Table 3.2-5. The calculations used to develop construction emissions incorporate compliance with applicable dust control measures required to be implemented during each phase of construction by SCAQMD Rule 403 (Control of Fugitive Dust), and fugitive VOC control measures required to be implemented by architectural coating emission factors based on SCAQMD Rule 1113 (Architectural Coatings).

**Table 3.2-5 Maximum Regional Construction Emissions (lbs/day)[a]**

| *Source[b]* | *VOC* | *$NO_X$* | *CO* | *$SO_2$* | *PM10* | *PM2.5* |
|---|---|---|---|---|---|---|
| Demolition | 2 | 24 | 16 | <1 | 2 | 1 |
| Single Family Residential | 11 | 42 | 35 | <1 | 12 | 7 |
| Multi- Family Residential | 125 | 50 | 51 | <1 | 9 | 6 |
| Non-Residential | 69 | 33 | 31 | <1 | 4 | 2 |
| Maximum Daily Emissions | 346 | 215 | 194 | <1 | 33 | 21 |
| **SCAQMD Thresholds** | 75 | 100 | 550 | 150 | 150 | 55 |
| **Significant?** | **Yes** | **Yes** | **No** | **No** | **No** | **No** |

Notes:

a Totals may not add up exactly due to rounding in the modeling calculations. Detailed emissions calculations are provided in Appendix B.

b Emissions represent the maximum daily emissions anticipated throughout each of the development types and demolition.

*Source: ESA, 2019.*

As shown in Table 3.2-5, construction-related daily emissions would exceed the SCAQMD significance thresholds for VOCs and $NO_x$. Therefore, short-term regional construction emissions would be potentially significant.

*Operation*

Operation of the Proposed Project would generate criteria air pollutant emissions from Project-generated vehicle trips traveling within the City, energy sources such as natural gas combustion, and area sources such as landscaping equipment and consumer products usage. The on-road mobile sources related to the operation of the Proposed Project include passenger vehicles, onsite use of off-road equipment and delivery trucks. VMT data, takes into account ridership, mode, and distance on freeways and local streets as provided in Chapter 3.12: Transportation. Projected emissions resulting from operational activities of the Proposed Project are presented in Table 3.2-6.

**Table 3.2-6 Maximum Regional Operational Emissions (lbs/day)[a]**

| *Source[b]* | *VOC* | *$NO_X$* | *CO* | *$SO_2$* | *PM10* | *PM2.5* |
|---|---|---|---|---|---|---|
| Area | 957 | 210 | 1,943 | 1 | 26 | 26 |
| Energy | 22 | 194 | 113 | 1 | 15 | 15 |
| Mobile | 103 | 1,729 | 2,774 | 11 | 1,155 | 311 |
| Maximum Daily Emissions | **1,082** | **2,134** | **4,829** | **13** | **1,196** | **352** |
| **SCAQMD Thresholds** | 55 | 55 | 550 | 150 | 150 | 55 |
| **Significant?** | **Yes** | **Yes** | **Yes** | No | **Yes** | **Yes** |

Notes:

a Totals may not add up exactly due to rounding in the modeling calculations. Detailed emissions calculations are provided in Appendix B.

b Emissions represent the maximum daily emissions anticipated throughout each of the development types and demolition.

*Source: ESA, 2019.*

As identified in Table 3.2-6, operational emissions for the Proposed Project would exceed regulatory thresholds for VOC, NOx, CO, PM10, and PM2.5. While these thresholds are the only thresholds available for numerically determining significance, it should be noted that these thresholds were specifically developed for use in determining significance for individual projects and not for program-level documents, such as the General Plan. However, as emissions for VOC, NOx, PM10, and PM2.5 exceed regulatory thresholds, the regional operational emissions would be potentially significant.

Although emissions from buildout exceed regulatory thresholds, with the exception of PM10, emissions from buildout would have less emissions for all other criteria pollutants than total emissions under the existing conditions. This is due to the increases in energy efficiencies for building equipment, implementation of RPS strategies, as well as increases in fuel efficiency increases.

The proposed policies of the General Plan listed below would potentially reduce emissions, which could potentially address impacts related to conflicts with an applicable air quality plan.

*Proposed General Plan Policies that Address the Impact*

Policies RC-P-28, RC-P-30, RC-P-33, RC-P-34, RC-P-37, and CR-P-6, discussed under Impact 3.2-1.

*Mitigation Measures*

Mitigation is necessary to reduce impacts from project construction, specifically with respect to the generation of VOC and NOx emissions.

**MM-AQ-1 Construction Features**. Future development projects implemented under the General Plan will be required to demonstrate consistency with SCAQMD construction emission thresholds. Where emissions from individual projects exceed SCAQMD thresholds, the following measures shall be incorporated as necessary to minimize impacts. These measures do not exclude the use of other, equally effective mitigation measures.

- Require all off-road diesel equipment greater than 50 horsepower (hp) used for this Project to meet USEPA Tier 4 final off-road emission standards or equivalent. Such equipment shall be outfitted with Best Available Control Technology (BACT) devices including a California Air Resources Board certified Level 3 Diesel Particulate Filter (DPF) or equivalent. This DPF will reduce diesel particulate matter and $NO_X$ emissions during construction activities.
- Require a minimum of 50 percent of construction debris be diverted for recycling.
- Require building materials to contain a minimum 10 percent recycled content.
- Require materials such as paints, primers, sealants, coatings, and glues to have a low volatile organic compound concentration compared to conventional products. If low VOC materials are not available, architectural coating phasing should be extended sufficiently to reduce the daily emissions of VOCs.

**MM-AQ-2: Future development**. Under the Proposed Project, future development would be required to demonstrate consistency with SCAQMD's operational thresholds. For projects where operational emissions exceed regulatory thresholds the following measures may be used to reduce impacts. Note the following measures are not all inclusive and developers have the option to add or substitute measures that are equally or more appropriate for the scope of their project.

- Develop a project specific TDM program for residents and/or employees that provides opportunities for carpool/vanpools.
- Provide onsite solar/renewable energy in excess of regulatory requirements.
- Require that owners/tenants of non-residential or multi-family residential developments use architectural coatings that are 10 grams per liter or less when repainting/repairing properties.
- Require dripless irrigation and irrigation sensor units that prevent watering during rain storms.
- Ensure all parking areas are wired capability of future EV charging and include EV charging stations that exceed regulatory requirements.

**Level of Significance After Mitigation:**

Implementation of mitigation measure MM-AQ-1 would reduce the emissions from construction activities with respect to NOx emissions, as shown in Table 3.2-7. While implementation of this mitigation measure would also reduce VOC impacts, the extent to which the impacts would be reduced would have to be determined on a project-by-project basis, as necessary.

**Table 3.2-7 Mitigated Regional Construction Emissions (lbs/day)[a]**

| *Source[b]* | *VOC* | *$NO_X$* | *CO* | *$SO_2$* | *PM10* | *PM2.5* |
|---|---|---|---|---|---|---|
| Demolition | <1 | 4 | 16 | <1 | 1 | <1 |
| Single Family Residential | 8 | 5 | 39 | <1 | 9 | 5 |
| Multi- Family Residential | 122 | 9 | 54 | <1 | 7 | 4 |
| Non-Residential | 67 | 9 | 33 | <1 | 3 | 1 |
| Maximum Daily Emissions | 322 | 45 | 207 | <1 | 25 | 13 |
| **SCAQMD Thresholds** | 75 | 100 | 550 | 150 | 150 | 55 |
| **Significant?** | **Yes** | **Yes** | **Yes** | No | **Yes** | **Yes** |

NOTES:

a Totals may not add up exactly due to rounding in the modeling calculations. Detailed emissions calculations are provided in Appendix B.

b Emissions represent the maximum daily emissions anticipated throughout each of the development types and demolition.

*Source: ESA, 2019.*

The exact emissions from construction of development anticipated by the Proposed Project cannot be quantified without full detail of the development projects to be implemented and the extent to which mitigation can be applied. Individual projects anticipated by the proposed General Plan Update will be required to implement their own environmental review. Therefore, it is unknown if emissions with the implementation of MM-AQ-1 can reduce emissions of all criteria pollutants to below regulatory levels. Therefore, short-term regional construction emissions would be significant and unavoidable.

With respect to operational emissions, future development under the General Plan Update would be required to comply with AQMP, SIP, CARB, SCAQMD regulations, Title 24 energy efficiency standards, and the proposed General Plan Update policies and actions. However, as there is no way to determine the extent to which these regulations will be, or need to be, implemented, nor the effectiveness of the mitigation for individual projects, it is impossible to determine if potential impacts would be reduced to below regulatory thresholds. Additionally, there are no feasible mitigation measures beyond strategies in these plans and Mitigation Measure MM-2, that would reduce impacts. Therefore, long-term regional operational emissions would be significant and unavoidable.

### Impact 3.2-3 Implementation of the Proposed Project would expose sensitive receptors to substantial pollutant concentrations. (*Significant and Unavoidable*)

Criteria air pollutant emissions have the potential to result in health impacts on sensitive receptors located near new development within the Proposed Project area. As discussed previously, localized impacts are associated with onsite activities. In addition to these localized impacts, vehicle travel associated with the Proposed Project has the potential to result in exposure of sensitive receptors to CO emissions from intersection congestion. Based on the nature and extent of new development, nearby sensitive receptors could be exposed to levels of toxic air contaminants that could result in a potential increase in cancer, acute, and/or chronic risk. The Proposed Project would potentially cause a significant impact if one of the following would occur:

Localized emissions from $NO_2$ and CO for the Proposed Project, when combined with existing ambient concentrations, would exceed the CAAQS.

Localized emissions from PM10 and PM2.5 would result in exceedance of the following incremental increase thresholds:

- 10.4 μg/m$^3$ (24-hour) and 1 μg/m$^3$ of PM10 (Annual) for construction,
- 10.4 μg/m$^3$ (24-hour) of PM2.5 for construction,
- 2.5 μg/m$^3$ (24-hour) and 1.0 μg/m$^3$ (Annual) of PM10 for operations, and
- 2.5 μg/m$^3$ (24-hour) of PM2.5 for operation.

Buildout of the Proposed Project would emit carcinogenic materials or TACs that exceed the maximum incremental cancer risk of ten in one million or an acute or chronic hazard index of 1.0; or if cancer burden corresponds to an increase in more than 0.5 excess cancer cases in areas where the Project-related increase in individual cancer risk exceeds 1 in one million.

*Construction*

Local Air Quality

SCAQMD recommends the evaluation of localized air quality impacts on sensitive receptors in the immediate vicinity of the Project. The thresholds are based on applicable short-term (24-hrs) CAAQS and NAAQS. The screening criteria provided in the Localized Significance Threshold Methodology were used to determine localized construction emissions thresholds for the Project. As discussed previously, localized emissions impacts are only analyzed for onsite emissions of $NO_2$, CO, PM10 and PM2.5. Because the development anticipated by the Proposed Project would be constructed over the 20-year buildout horizon, and throughout the City of Diamond Bar, it is not anticipated that more than one development project would impact the same sensitive receptor at the same time. Therefore, the analysis compares the onsite emissions of each modeled project type to the appropriate screening levels.

Results of the localized construction emission calculations are presented in Table 3.2-8. The emissions for increase in construction-related daily emissions for the criteria and precursor pollutants ($NO_X$, CO, PM10, and PM2.5) would be below the SCAQMD thresholds of significance.

Therefore, Project-related localized construction emissions would result in a less than significant impact.

**Table 3.2-8 Unmitigated Localized Construction Emissions (lbs/day)[a]**

| *Source* | *$NO_X$* | *CO* | *PM10* | *PM2.5* |
|---|---|---|---|---|
| **2 Acre Screening Analysis** | | | | |
| Demolition | 21 | 15 | 2 | 1 |
| Non-Residential | 31 | 29 | 3 | 2 |
| Maximum Emissions | 31 | 29 | 3 | 2 |
| Screening Level | **83** | **885** | **6** | **4** |
| Exceed Screening Level? | No | No | No | No |
| **5 Acre Screening Analysis** | | | | |
| Single-Family Residential | 42 | 33 | 9 | 6 |
| Multi- Family Residential | 50 | 33 | 9 | 6 |
| Maximum Emissions | 50 | 33 | 9 | 6 |
| **Screening Level** | 131 | 1,556 | 12 | 7 |
| **Exceed Screening Level?** | No | No | No | No |

Notes:
a Totals may not add up exactly due to rounding in the modeling calculations. Detailed emissions calculations are provided in Appendix B.

*Source: ESA, 2019.*

*Operational*

Local Air Quality

SCAQMD recommends the evaluation of localized air quality impacts on sensitive receptors in the immediate vicinity of the Project. However, the impacts are based on specific equipment and operations. Because the exact nature, location, and operation of the future developments are unknown, quantification of potential localized operational risk would be speculative. However, as operation of these future developments will occur within close proximity to sensitive receptors, there is the potential for localized emissions to exceed regulatory levels. Therefore, localized operational emissions with respect to the Proposed Project would be potentially significant.

Intersection Hotspot Analysis

The potential for the Project to cause or contribute to CO hotspots is evaluated by comparing project intersections (both intersection geometry and traffic volumes) with prior studies conducted by SCAQMD in support of their AQMPs and considering existing background CO concentrations. As discussed below, this comparison demonstrates that the Proposed Project would not cause or contribute considerably to the formation of CO hotspots, that CO concentrations at project impacted intersections would remain well below the ambient air quality standards, and that no further CO analysis is warranted or required.

As shown previously in Table 3.2-2, CO levels in the Proposed Project area are substantially below the Federal and State standards. Maximum CO levels in recent years are 2.1 ppm (1-hour average) and 1.8 ppm (8-hour average) compared to the thresholds of 20 ppm (1-hour average) and 9.0 ppm (8-hour average). CO levels decreased dramatically in the Air Basin with the introduction of the catalytic converter in 1975. No exceedances of CO have been recorded at monitoring stations in the Air Basin for some time and the Air Basin is currently designated as a CO attainment area for both the CAAQS and NAAQS. Thus, it is not expected that CO levels at Proposed Project-impacted intersections would rise to the level of an exceedance of these standards.

Additionally, SCAQMD conducted CO modeling for the 2003 AQMP for the four worst-case intersections in the Air Basin: (1) Wilshire Boulevard and Veteran Avenue; (2) Sunset Boulevard and Highland Avenue; (3) La Cienega Boulevard and Century Boulevard; and (4) Long Beach Boulevard and Imperial Highway. In the 2003 AQMP, SCAQMD notes that the intersection of Wilshire Boulevard and Veteran Avenue is the most congested intersection in Los Angeles County, with an average daily traffic volume of approximately 100,000 vehicles per day. This intersection is located near the on- and off-ramps to Interstate 405 in West Los Angeles. The evidence provided in the 2003 AQMP (Table 4-10 of Appendix V) shows that the peak modeled CO concentration due to vehicle emissions at these four intersections was 4.6 ppm (1-hour average) and 3.2 (8-hour average) at Wilshire Boulevard and Veteran Avenue. When added to the existing background CO concentrations, the screening values would be 7.6 ppm (1-hour average) and 6.2 ppm (8-hour average). Based on the intersection volumes identified at these modeled intersections, if a project's traffic levels exceed 100,000 vehicles per day at any project impacted intersection, there would be the potential for significant impacts and dispersion modeling would need to be conducted to determine project level impacts.

Based on Chapter 3.12: Transportation, of the studied intersections under the buildout horizon, the intersection with the maximum potential peak traffic would be that of Grand Ave and Golden Springs Drive. This intersection would have peak volumes of approximately 62,500 vehicles per day, which is below the 100,000 vehicles per day in the 2003 AQMP. As a result, CO concentrations are expected to be less than those estimated in the 2003 AQMP, which would not exceed the applicable thresholds. Thus, this comparison demonstrates that the Proposed Project would not contribute considerably to the formation of CO hotspots and no further CO analysis is required. The Project would result in less than significant impacts with respect to CO hotspots.

### *Toxic Air Contaminants*

Construction and operation of the Proposed Project would result in emissions of TAC, predominantly from diesel particulate emissions from on- and off-road vehicles during construction and from the operation of diesel fueled equipment or generators during operational activities. Because the exact nature, location, and operation of the future developments are unknown, and because health risk impacts from TACs are cumulative over the life of the nearby receptors, quantification of potential health risks would be speculative. However, as construction and operation of these future developments will occur within close proximity to sensitive receptors, there is the potential for risk to exceed regulatory levels. Therefore, health risk with respect to the development anticipated by the Proposed Project would be potentially significant.

*Health Impacts*

Because regional emissions exceed the SCAQMD regulatory thresholds during construction and operational activities, there is the potential that these emissions would exceed the CAAQS and NAAQS thus resulting in a health impact. Without knowing the exact specifications for all projects that may be developed under the General Plan Update, there is no way to accurately calculate the potential for health impacts from the overall Proposed Project. Individual projects will be required to provide their own environmental assessments to determine health impacts from the construction and operation of their projects. Because there is no way to determine the potential for these projects to affect health of sensitive receptors within the City of Diamond Bar, the Proposed Project would result in potentially significant health impacts.

The proposed policies of the General Plan listed below would potentially reduce emissions, which could potentially reduce impacts related to conflicts with an applicable air quality plan.

*Proposed General Plan Policies that Address the Impact*

Policies RC-P-28, RC-P-30, RC-P-33, RC-P-34, RC-P-35, RC-P-37, and CR-P-7, discussed under Impact 3.2-1.

*Mitigation Measures*

Implementation of Mitigation Measure MM-AQ-1 (detailed under Impact 3.2-2) would reduce impacts with respect to toxic air contaminants, as well as, health impacts by reducing emissions of criteria pollutants due to more efficient construction equipment.

**Level of Significance After Mitigation:**

With respect to local operational emissions, and construction and operational toxic air contaminant emissions and health impacts, future development under the General Plan would be required to comply with AQMP, SIP, CARB, SCAQMD regulations, Title 24 energy efficiency standards, and the proposed General Plan policies and actions. Implementation of mitigation measure MM-AQ-1 would also reduce criteria pollutant emissions. However, as there is no way to determine the extent to which these regulations will be, or need to be, implemented, nor the effectiveness of the mitigation for individual projects, it is impossible to determine if potential impacts would be reduced to below regulatory thresholds. Additionally, there are no feasible mitigation measures beyond strategies in these plans and mitigation measures MM-1 and MM-2 that would further reduce impacts. Therefore, localized operational impacts, construction and operational health and toxic air impacts would remain significant and unavoidable.

### Impact 3.2-4 Implementation of the Proposed Project would result in other emissions (such as those leading to odors adversely affecting a substantial number of people). (*Significant and Unavoidable)*

The Proposed Project would have a potentially significant odor impact if it results in odors that affect a substantial number of people. Further the Proposed Project could potentially cause or contribute to an exceedance of an ambient air quality standard with respect to CO and Sox, if the following would occur:

Regional construction emissions from both direct and indirect sources would exceed any of the following SCAQMD prescribed daily emissions thresholds (SCAQMD, 2015b):

- 550 pounds per day for CO,
- 150 pounds per day for $SO_X$,

Regional operational emissions exceed any of the following SCAQMD prescribed daily emissions thresholds (SCAQMD, 2015b):

- 550 pounds per day for CO,
- 150 pounds per day for $SO_X$,

*Construction*

Odors

Potential sources that may emit odors during construction activities include the use of architectural coatings and solvents. SCAQMD Rule 1113 (Architectural Coatings) limits the amount of VOCs from architectural coatings and solvents. According to the SCAQMD CEQA Air Quality Handbook, construction equipment is not a typical source of odors. Odors from the combustion of diesel fuel would be minimized by complying with the CARB ATCM that limits diesel-fueled commercial vehicle idling to 5 minutes at any given location, which was adopted in 2004. The Proposed Project would also comply with SCAQMD Rule 402 (Nuisance), which prohibits the emissions of nuisance air contaminants or odorous compounds. Through adherence with mandatory compliance with SCAQMD Rules and State measures, construction activities and materials would not create objectionable odors. Construction of the Proposed Project's uses would not be expected to generate nuisance odors at nearby air quality sensitive receptors. Impacts with respect to odors would be less than significant.

Regional Emissions

Table 3.2-5, under Impact 3.2-2, details the Proposed Project's emissions with attainment pollutants CO and SOx. As shown, construction-related daily emissions would not exceed the SCAQMD significance thresholds for these attainment pollutants. Therefore, short-term regional construction emissions would be less than significant.

*Operational*

Odors

The Proposed Project's land uses are related to growth in residential, office, retail/restaurant, commercial, and park land uses and are not expected to introduce substantial sources of other emissions, including odors. According to the SCAQMD CEQA Air Quality Handbook, land uses associated with odor complaints typically include agricultural uses, wastewater treatment plants, food processing plants, chemical plants, composting, refineries, landfills, dairies, and fiberglass molding. The Proposed Project would not involve elements related to these types of uses. The Proposed Project would include various trash receptacles. On-site trash receptacles used by the Proposed Project would be covered and properly maintained to prevent adverse odors. With proper housekeeping practices, trash receptacles would be maintained in a manner that promotes odor control, and no adverse odor impacts are anticipated from the uses. Impacts with respect to odors would be less than significant.

Regional Emissions

As identified in Table 3.2-6, operational emissions for the Proposed Project would exceed regulatory thresholds for CO. Emissions of SOx are well below regulatory thresholds. While these thresholds are the only thresholds available for numerically determining significance, it should be noted that these thresholds were specifically developed for use in determining significance for individual projects and not for program level documents such as the General Plan. However, as emissions for CO exceed regulatory thresholds, the regional operational emissions would be potentially significant.

The proposed policies of the General Plan listed below would potentially reduce emissions, which would potentially reduce impacts related to conflicts with an applicable air quality plan.

*Proposed General Plan Policies that Address the Impact*

Policies RC-P-28, RC-P-30, RC-P-33, RC-P-34, RC-P-35, RC-P-37, and CR-P-7, discussed under Impact 3.2-1.

*Mitigation Measures*

None available.

**Level of Significance After Mitigation:**

With respect to operational emissions, future development under the proposed General Plan would be required to comply with AQMP, SIP, CARB, SCAQMD regulations, Title 24 energy efficiency standards, and the proposed General Plan policies and actions. However, as there is no way to determine the extent to which these regulations will be, or need to be, implemented, nor the effectiveness of the mitigation for individual projects, it is impossible to determine if potential impacts would be reduced to below regulatory thresholds. Additionally, there are no mitigation measures beyond strategies in these plans that would reduce impacts. Therefore, long-term regional operational emissions would be significant and unavoidable.

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# 3.3 Biological Resources

This section assesses potential environmental impacts on existing biological resources from anticipated development under the Proposed Project, including those related to sensitive species and/or habitats, riparian or streamside resources under the jurisdiction of federal or State agencies, and adopted regulations or policies. The section describes biological resources in the Planning Area, including habitats, wetlands, critical habitat, and special-status species, as well as relevant federal, State, and local regulations and programs.

There were numerous comments received on the Notice of Preparation (NOP) regarding topics covered in this section. Those comments included the following topics specific to Biological Resources.

- The California Oaks Coalition of the California Wildlife Foundation (CWF) expressed concern that the habitat mapping used in the General Plan materials does not accurately represent the City's oak woodland resources. The analysis in this EIR is based on the most recent available data of habitat types and special status species within the Planning Area.
- A member of the public stated that Tonner Canyon (and 75 percent of Tres Hermanos Ranch) should remain as open space and a wildlife corridor, and that development destroys trees, vegetation, and wildlife, but it also adds to the traffic and pollution. The proposed General Plan designates the Sphere of Influence, which includes Tonner Canyon, as a Significant Ecological Area. The Tres Hermanos Conservation Authority has acquired Tres Hermanos and limits the use of the property to open space, public use, or preservation.
- A member of the public stated that accurate inventory and scientific study should be conducted of the Golf Course's ecological resources and its contributions to climate change mitigation and adaptation, water filtration and greenhouse gas mitigation, and noise abatement. They added that there needs to be an accurate inventory and study of the biological resources and sensitive habitats throughout Diamond Bar and how these will be affected by all proposed land-use changes and potential developments. The member of the public questioned the methodology used to assess sensitive habitats and watersheds in the Planning Area within the Existing Conditions Report. This chapter assesses impacts associated with biological resources in the Planning Area, and other topics mentioned in this comment letter are discussed in Chapter 3.5: Energy, Climate Change, and Greenhouse Gases and Chapter 3.8: Hydrology and Water Quality. The assessment of sensitive habitats and watersheds in this EIR is based on literature review and the Hamilton Biological Resources Report, as discussed below, rather than on the Existing Conditions Report.

- A representative from Hills for Everyone (HFE) requested that the EIR discuss how the General Plan addresses existing and planned wildlife movement corridors; incorporates planning features to add wildlife movement corridors; protect endangered, threatened, or species of special concern; protect federally or state designated critical habitat; protect sensitive habitat; ensure bird migration routes are available for the Pacific Flyway; ensure new developments reduce impacts to wildland areas; reduce habitat fragmentation in existing wildland areas; and limit edge effects in existing wildland areas. These topics are addressed in the analysis within this chapter.
- HFE requested that the General Plan update figures of special-status plant and animal species. Figures 3.3-3 and 3.3-4 are based on 2019 CNDDB data.
- A representative from Save the Tres Hermanos Group stated that the City of Diamond Bar should establish a wildlife corridor connecting Chino Hills State Park, City of Diamond Bar, Puente-Chino Hills Wildlife Corridor and Whittier Narrows located on the Tres Hermanos property bordering Chino Hills, Brea, and Pomona. Natural open space like Tres Hermanos should be considered for preservation or enhanced to support human safety, watersheds, green infrastructure and create habitat connectivity to larger land parcels. The representative stated that these resources need to be thoroughly identified, documented, and the potential impacts be stated in the General Plan and EIR. Impact 3.3-4 discusses preservation of and potential impacts to wildlife corridors in the Planning Area.

This assessment addresses each of these comments in a manner consistent with industry accepted standards for programmatic EIRs according to CEQA Guidelines.

# Environmental Setting

## FIELD RECONNAISSANCE

ESA (Environmental Science Associates) biologists conducted a reconnaissance survey on August 25, 2016, to develop a broad-scale classification of the vegetation communities within the Planning Area. Prior to field surveys, a desktop analysis was conducted to obtain contextual information relevant to the area. Mapping and habitat types were compiled based on a desktop analysis of 2015 aerial imagery, as well as the reconnaissance survey to confirm natural communities as interpreted from aerial imagery (Google Maps 2015) and the reconnaissance-level inspection. Hamilton Biological, Inc. conducted a reconnaissance level survey as well. The context of this biological resources assessment is a program EIR. As such, no specific site assessments or focused surveys were performed. However, it should be noted that site specific assessments and focused surveys have been conducted in areas of future development anticipated by the Proposed Project where the occurrence of special status species do exist. The Diamond Bar Village Specific Plan, South Pointe West Specific Plan, and Site D Specific Plan previously completed assessments of biological resources located within their planning areas. The City of Industry has completed multiple site specific assessments of Tonner Canyon. A study funded by Diamond Bar residents, Diamond Bar Responsible Land Use, Diamond Bar Preservation Alliance, and the Sierra Club (known as the Hamilton Biological Report) analyzed biological resources within the City of Diamond Bar as of February 2019.

## Physical Setting

The City is located in southeast Los Angeles County within the Puente-Chino Hills complex. Topographically, much of the City exhibits steep to gently rolling slopes and ridges with intervening narrow canyons. Along its southeastern boundary, the City includes portions of the Tonner Canyon watershed, which is a tributary to Brea Canyon just south of the City's southern limits. Much of the land within the City limits consists of developed land, primarily residential communities, businesses, schools, roads, and small parks. The incorporated city encompasses approximately 9,526 acres; and, the SOI encompasses approximately 3,513 acres for a total Planning Area of approximately 13,039 acres.

## Vegetation Communities and Other Land Cover Types[1]

The classification system and descriptions of the vegetation communities provided herein are based on Sawyer et. al. (2009) vegetation classifications, and more specifically the Sawyer et. al. (2009) vegetation alliances (Sawyer, Keeler-Wolf, & Evens, 2009).[2] Alliances, in turn, are broken into associations.[3] There are several classification systems that are used industry-wide. For purposes of this assessment addressing the resources within the 13,039-acre Planning Area, Sawyer et. al. was considered to be the most appropriate, particularly since the Planning Area is large and future projects will involve site-specific assessments. As such, the following characterization of vegetation in the Planning Area is initially identified by its general composition and structure (woodland, shrubland, or grassland/herbland). Within the description of the general vegetation type, the alliance used by Sawyer et. al. is provided, followed by the more distinctive plant associations, or alliances within the Planning Area. Therefore, this classification system and the vegetation mapping shown in Figure 3.3-1 should be used as a guide for future site-specific assessments.

Table 3.3-1 identifies the basic vegetation communities and land cover types within the Planning Area. A description of each vegetation community type is provided following the table.

**Table 3.3-1 Vegetation Communities and Land Cover Types within Diamond Bar and Its SOI**

| *ID* | *Type* | *Within City Limits (Acres)* | *Within Sphere of Influence (Acres)* | *TOTAL Planning Area (Acres)* |
|---|---|---|---|---|
| DEV | Developed | 6,435.78 | | 6,435.78 |
| DIS | Disturbed | 5.85 | 15.95 | 21.80 |

[1] The reader should note that the classification system has been changed from a more general classification, as initially described, to one more current and consistent with the CDFW and its affiliate organizations.

[2] A vegetation alliance is a classification unit containing one or more associations and defined by a characteristic range of species composition, habitat conditions, physiognomy, and diagnostic species, typically at least one of which is found in the uppermost or dominant vegetation

[3] A vegetation association is a classification unit defined on the basis of a more defined range of species composition, diagnostic species occurrences, habitat conditions and physiognomy.

| | | | | |
|---|---|---|---|---|
| DS | Disturbed Shrubland | 125.43 | 107.42 | 232.85 |
| GC | Diamond Bar Golf Course | 172.25 | | 172.25 |
| NNR | Non-Native Semi-Natural Riparian | 13.61 | | 13.61 |
| NNW | Non-Native Woodland | 28.56 | | 28.56 |
| NO/WW | Native Oak / Walnut Woodland | 1,162.98 | 819.30 | 1,982.28 |
| NS/S | Natural Shrublands and Scrub | 490.95 | 1,922.66 | 2,413.61 |
| RW/S | Riparian Woodland and Scrub | 9.97 | 54.51 | 64.48 |
| SNHS | Semi-Natural Herbaceous Stands | 1,080.57 | 593.01 | 1,673.58 |
| **TOTAL** | | **9,525.96** | **3,512.84** | **13,038.80** |

*Source: Environmental Science Associates, 2019.*

### *Native Oak and Walnut Woodlands*

Although considered distinct vegetation alliances by Sawyer et. al., there is a high degree of intermixing between the oak woodland alliance and walnut woodland alliance. For the purpose of this assessment it was not practical to distinguish between the two over the mosaic these alliances form in the City and SOI. However, this distinction may need to be determined at the project-specific level.

The ***Quercus agrifolia woodland alliance***, or coast live oak woodland, is one where coast live oak is dominant or co-dominant in the tree canopy. Depending on the classification author, >50% to >60% of the relative tree cover is associated with coast live oaks. Typically, shrub cover is sparse to intermittent. Underlying herbaceous cover is sparse or grassy. Within the Planning Area, it is found in canyon bottoms, stream banks and on slopes and flats where soils are deep with high organic matter. There are several associations that could occur in the Planning Area. These include pure stands of coast live oak, pure stands of coast live oak with understories of annual forbs and grasses, greenbark ceanothus (*Ceanothus spinosus*), toyon (*Heteromeles arbutifolia*), poison oak (*Toxicodendron diversilobum*), white sage (*Salvia apiana*), or black sage (*Salvia mellifera*), and mixed stands with coast live oak and California walnut (*Juglans californica*) and other tree species.

In comparison, the ***Juglans californica* woodland alliance**, or California walnut groves, is one where the California walnut is dominant or co-dominate in the tree canopy. Typically, membership rules are >50% relative cover by California walnut in the tree canopy or >30% relative cover by California walnut with the presence of coast live oak. The largest stands of this alliance are found in the Puente Hills and the Chino Hills that include the Planning Area (Quinn, 1989). There are several associations that are found in the Planning Area including California walnut with an understory of annual forbs and grasses, California sagebrush (*Artemisia californica)*, greenbark ceanothus, toyon, or laurel sumac (*Malosma laurina),* and mixed stands with California walnut and coast live oak.

As can be seen in the above description of these alliances, there can be misinterpretations of the alliance type when viewed from a distance or in aerial photography, particularly in the winter when the winter-deciduous California walnut has no leaves. For this reason, the mapping of these alliances in Figure 3.3-1 should be viewed as being subject to site-specific investigations.

*Native Shrublands and Scrub*

Native shrubland and scrub alliances include various compositions of coastal sage scrub and chaparral. The ***Adenostoma fasciculatum*** shrubland alliance, or chamise chaparral, may be present as a monotypic stand association and in associations with annual forbs and grasses, California buckwheat (***Eriogonum fasciculatum***), and toyon. This alliance and its associations are dominated by chamise in stands where its relative cover is >50%. This alliance can occur over varied topography with commonly shallow soils. Stands where chamise is co-dominant with white sage in the shrub canopy (both 30-60% relative cover) are classified by Sawyer et. al as an **A*denostoma fasciculatum-Salvia apiana*** shrubland alliance, or chamise-white sage chaparral. This alliance is more typical of south to east-facing slopes. Similarly, the ***Adenostoma* fasciculatum-*Salvia mellifera*** shrubland alliance, or chamise-black sage chaparral is co-dominated by chamise and black sage (30-60% relative canopy cover).

A variety of coastal sage scrub alliances may be found in the Planning Area. These include: ***Artemisia californica*** shrubland alliance, or California sagebrush scrub, where California sagebrush comprises >60% of the shrub canopy; ***Artemisia californica-Eriogonum fasciculatum*** shrubland alliance, or California sagebrush-California buckwheat scrub, where these two species both have 30-60% relative cover; ***Artemisia californica-Salvia mellifera*** shrubland alliance, or California sagebrush-black sage scrub, where these two species both comprise 30-60% of the relative cover; ***Baccharis pilularis*** shrubland alliance, or coyote brush scrub, where coyote brush is present in >50% of the relative cover; ***Eriogonum fasciculatum*** shrubland alliance, or California buckwheat scrub, where this species comprises >50% relative cover; ***Eriogonum fasciculatum-Salvia apiana*** shrubland alliance, or California buckwheat-white sage scrub, where these two species are both 30-60% relative cover; ***Acmispon glaber*** scrub, or deer weed scrub , where cover by deer weed is >50%; and, ***Opuntia littoralis shrubland*** alliance, or coast prickly pear scrub, where this species represents >30% of the relative cover. There are a number of more distinct associations these alliances may form. Usually these are described as the species defining the alliance followed by one or two other species that are not dominant or co-dominant, but are common in the stand.

As with the native oak and walnut woodlands, there can be considerable overlap and mixing of shrubland and scrub alliances which can lead to misinterpretations of the alliance type when viewed

from a distance or in aerial photography, particularly in the summer when many scrub species are deciduous. For this reason, the mapping of these alliances and their mixtures in Figure 3.3-1 should be considered to be subject to site-specific investigations.

### *Riparian Woodland and Scrub*

There are four noteworthy drainage features in the Planning Area where distinctively riparian vegetation is found. A ***Salix lasiolepis* shrubland alliance**, or arroyo willow thicket, is found along Brea Canyon Creek downstream of residential development, along Tonner Canyon Creek within the City's SOI, and along a tributary of Tonner Canyon Creek above Arnold Reservoir. There are likely to be other willow species (*Salix sp.*) as well as mulefat (*Baccharis salicifolia*), but arroyo willow (*Salix* lasiolepis) is the dominant plant in these areas. In upper Tonner Canyon there is also a small stand of ***Platanus racemosa* woodland alliance**, or California sycamore woodland. The soils appear to be rocky or cobble alluvium. Spread throughout this stand are coast live oak and Mexican elderberry (*Sambucus Mexicana*).

### *Semi-Natural Herbaceous Stands*

Sawyer et. al. provides for the classification of various semi-natural stands, several of which are likely to occur in the Planning Area. These and their associated membership rules are described below.

***Avena (fatua, barbata) semi-natural herbaceous stands***, or wild oats grasslands, are described as being over 50-75% relative cover by wild oats (*Avena fatua, A. barbata*) with <5% absolute cover by native plants or <10% relative cover by the herbaceous layer, depending on the classification system. ***Brassica nigra and other mustards semi-natural herbaceous stands***, or upland mustards, are stands where non-native mustard species (*Brassica sp., Hirschfeldia incana*) are dominant in the herbaceous layer. ***Bromus rubens-Schismus (arabicus, barbatus) semi-natural herbaceous stands***, or red brome or Mediterranean grass grasslands are stands that have >80% relative cover by red brome (*Bromus rubens*) and/or Mediterranean grasses (*Schismus arabicus, S. barbatus*).

Often broadly grouped as annual grasslands, these stands may support populations of scattered or limited native species, some of which are of a special status. Therefore, it is important to have project applicants arrange for spring and/or fall surveys when special status plants are blooming.

### *Non-Native Semi-Natural Riparian Stands*

Non-native riparian consists of densely vegetated riparian thickets heavily dominated by invasive plant species. Within the City, this community consists largely of Mexican fan palm (*Washingtonia robusta*), Brazilian pepper tree (*Schinus terebinthifolius*), and eucalyptus (*Eucalyptus* sp.). Tree of heaven (*Ailanthus altissima*) and ornamental pines (*Pinus sp.*) also occur within this community. There is some presence of arroyo willow and coast live oak, but natives such as these make up less than 25 percent of the vegetation cover within this community. Non-native semi-natural riparian stands are located in a single patch that runs along the south side of State Route 60 in the northern portion of the City.

### *Disturbed*

Disturbed areas have been physically altered by previous human activity and are no longer able to support recognizable or complete vegetation alliances. The soil is often highly compacted or frequently disturbed. Disturbed habitat within the City has shown evidence of disking or high compaction. Included in this classification are **Disturbed** and **Disturbed Shrubland** categories

### *Developed*

Developed/urban and suburban areas have been physically altered to the point in which they can no longer support native vegetation. The land cover type includes areas with permanent or semi-permanent structures, pavement or other hardscape, and landscaped areas that require irrigation. Developed land constitutes nearly three-quarters of the land within the City limits as well as localized areas of the SOI. It includes businesses, residences, schools, parks, highways and other roads, sidewalks, and irrigated landscapes. Within the areas called out as developed land cover there may be some oak trees, walnut trees, or other small pockets of native habitat. However, these pockets are generally too small and isolated to support other than urban- and suburban-adapted wildlife species.

### *Non-Native Woodland*

Non-native woodland typically consists of planted or invasive, non-native trees, often characterized by eucalyptus. Within the City and its SOI, non-native woodland consists of Brazilian pepper trees, ornamental pines, eucalyptus, and acacia (*Acacia* sp.), among others.

## Wildlife

### *Common Wildlife*

The vegetation alliances discussed above provide wildlife habitat for a wide range of species. While a few wildlife species are entirely dependent on a single natural community or on only a few of these communities, other wildlife species use most or all of the entire mosaic of all the alliances within the Planning Area and adjoining areas. Other species are highly tolerant of urban and suburban environments and proliferate within developed areas. Following is a general discussion of wildlife populations within the City and SOI, segregated by taxonomic group. The list is not exhaustive and represents examples of each taxonomic group either observed, reported, or expected within the Planning Area are provided. It is expected that more detailed lists of wildlife occurrences will be compiled on a project-specific basis.

In general, mostly terrestrial amphibian habitats occur within the Planning Area boundaries. As such, amphibian populations are expected to be relatively limited in distribution and number of species. Typical species expected to be present include the western toad (*Bufo boreas*), western spadefoot (*Spea* hammondii), California treefrog (*Pseudacris* cadaverina), and black-bellied slender salamander (*Batrachoseps nigriventris).* Although largely terrestrial in their adult stages, water to support reproduction in some species is required in the form of slow flowing streams and temporary pools that are primarily associated with creeks located within Tonner Canyon.

Reptilian diversity and abundance typically varies with habitat type and character. Some species prefer only one or two natural communities; however, most will forage in a variety of habitats. Some reptile species prefer open habitats that allow free movement and high visibility. Most species occurring in open habitats rely on the presence of small mammal burrows or rock fissures for cover and to escape from predators and extreme weather. Reptile species expected to occur within the Planning Area include, but are not limited to, western fence lizard (*Sceloporus occidentalis*), common side-blotched lizard (*Uta stansburiana*), southern alligator lizard (*Elgaria* multicarinata), southern Pacific rattlesnake (*Crotalus oreganus helleri*), San Diego gopher snake (*Pituophis melanoleucus annectens*), California kingsnake (*Lampropeltis califoriae*), ringneck snake (*Diadophis punctatus) and striped racer (*Coluber *lateralis*). A number of additional species have a potential to reside within the Planning Area as well.

Habitats within the City and its SOI provide foraging and cover habitat for year-round and seasonal avian residents including birds of prey, perching birds and running birds. Avian species commonly observed within the Planning Area include, the California towhee (*Pipilo crissalis*), northern mockingbird (*Mimus polyglottos*), common raven (*Corvus corax*), mourning dove (*Zenaida macroura*), Anna's hummingbird (*Calypte anna*), Bewick's wren (*Thryomanes bewickii*), cactus wren (*Campylorhynchus brunneicapillus*), bushtit (*Psaltriparus minimus*), house finch (*Carpodacus mexicanus*), and California quail (*Callipepla californica*), among many others.

The habitats within the City and its SOI also provide some foraging and breeding habitat for raptors. Raptorial species that are expected to be frequently observed or heard include the red-tailed hawk (*Buteo jamaicensis*), white tailed kite (*Elanus leucurus*) northern harrier (*Circus cyaneus*), Cooper's hawk (*Accipiter cooperi*), red-shouldered hawk (*Buteo lineatus*), and American kestrel (*Falco sparverius*).

Mammals expected consist of several rodents and medium-sized species, including the desert cottontail (Sylvilagus audubonii), California ground squirrel (*Spermophilus beecheyi*), Dulzura kangaroo rat (*Dipodomys simulans*), desert wood rat (*Neotoma lepida*), California mouse (*Peromyscus californicus*), deer mouse (*Peromyscus maniculatus*), western harvest mouse (*Reithrodontomys megalotis*), and valley pocket gopher (*Thomomys* bottae). In addition, there are several larger mammals known to occur in the Planning Area, including coyote (*Canis latrans*), mule deer (*Odocoileus hemionus*), bobcat (*Felis rufus*), striped skunk (*Mephitis mephitis*), raccoon (*Procyon lotor*), and Virginia opossum (*Didelphis virginiana*).

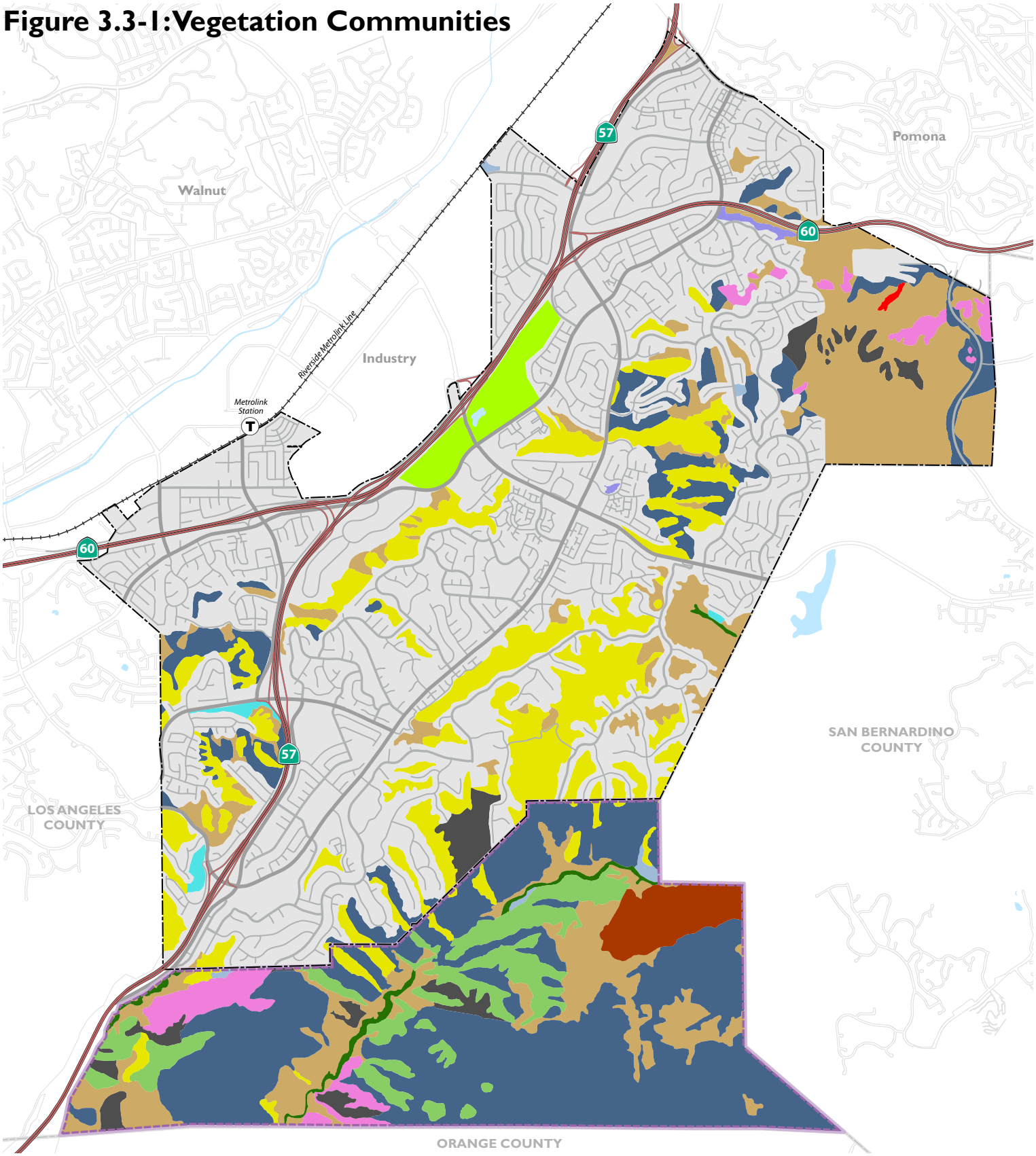
## Jurisdictional Waters and Wetlands

The Planning Area includes portions of four watersheds, parts of which have been channelized. These include the upper and middle sections of Tonner Creek; Diamond Bar Creek from its upper watershed to its confluence with San Jose Creek; Brea Canyon, much of which has been channelized prior to its leaving the City limits but remaining naturalized throughout the SOI; and San Jose Creek which is mostly channelized.

In California, certain drainage features and the associated riparian resources fall under the regulatory jurisdiction of the Army Corps of Engineers (ACOE), Regional Water Quality Control Board (RWQCB), and CDFW. These features can include: perennial, intermittent, and ephemeral streams; lakes, ponds, and other impounded water bodies; and wet meadows and wetlands.

Whereas the ACOE and RWQCB use the ordinary high water mark to determine their jurisdiction, CDFW includes the bed, banks, and associated riparian habitat within its jurisdiction. In order to assess the locations of potentially jurisdictional waterways within the City and the SOI, a preliminary desktop analysis was performed based on the blue line streams depicted on 7.5 minute USGS topographic maps. Blue line streams were assessed based on a 2015 aerial of the City (Google Maps 2015). For this assessment, areas of blue line streams that have since been developed were removed, and potentially jurisdictional drainages were added based off the topographic relief and aerial (Figure 3.3-2). Additional jurisdictional drainages are likely to occur within the City and its SOI and project-specific field surveys will need to be performed to determine the potential presence of jurisdictional features.

# Figure 3.3-1: Vegetation Communities

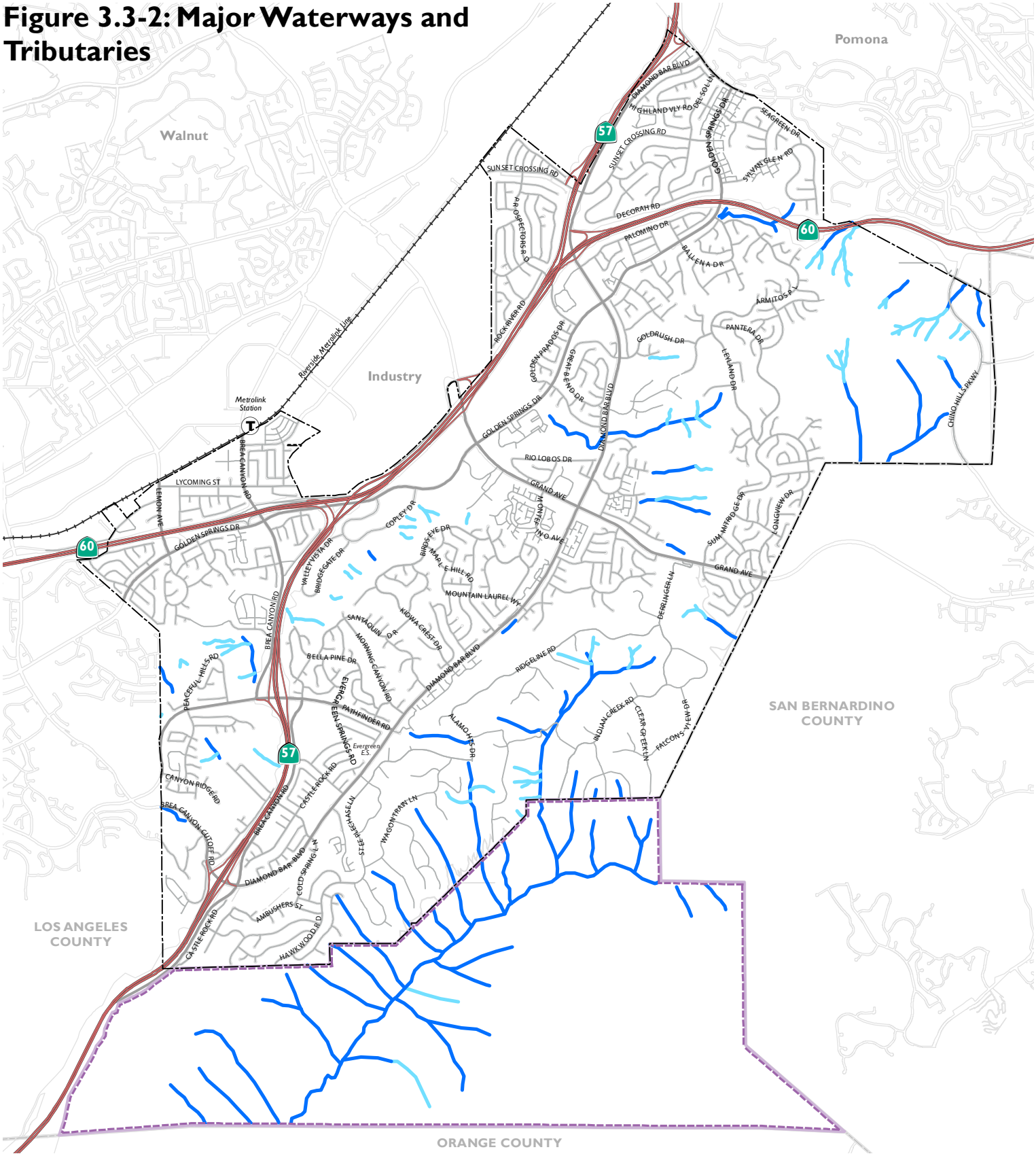



- California Walnut Woodland
- California Walnut Woodland / Coast Live Oak Woodland
- California Walnut Woodland / Coast Live Oak Woodland / Venturan Coastal Sage Scrub
- Coast Live Oak Woodland
- Sycamore Alluvial Woodland
- Non-Native Woodland
- Non-Native Grassland
- Non-Native Riparian
- Southern Willow Scrub
- Venturan Coastal Sage Scrub
- Disturbed Venturan Coastal Sage Scrub
- Disturbed
- Diamond Bar Golf Course
- Developed
- City of Diamond Bar
- Sphere of Influence

0 0.375 0.75 1.5
MILES

*Source: City of Diamond Bar 2019; ESA PCR, 2016; Dyett & Bhatia, 2019*

# Figure 3.3-2: Major Waterways and Tributaries




Blueline Streams
Potentially Jurisdictional Drainages
City of Diamond Bar
Sphere of Influence
County Boundary

*Source: ESA, 2019;*
*City of Diamond Bar 2019; Dyett & Bhatia, 2019*

0 0.25 0.5 1
MILES

## Critical Habitat

United States Fish and Wildlife Service (USFWS) designated critical habitat for listed plant or wildlife species does not occur within the Planning Area. The nearest critical habitat for the Coastal California gnatcatcher is located within the Puente-Chino Hills Wildlife Corridor in the City of Puente Hills located to the southwest of the SOI. Additional critical habitat for the Coastal California gnatcatcher is located within the City of Walnut but is not adjacent to the Planning Area boundaries.

## Sensitive Natural Communities[4]

The City boundaries and SOI contain vegetation alliances considered sensitive by CDFW due to their scarcity and/or because they support special status plant and wildlife species. A listing of all alliances that occur in the Planning Area and their global and state sensitivity levels is provided in Table 3.3-2. The definition of the levels is provided at the end of the table. The reader should note that all vegetation associations associated with the listed alliances below are considered to be at the same sensitivity level as the alliance.

**Table 3.3-2 Sensitive Natural Communities/Habitats within the City and Its SOI**

| *Alliance* | *State Level* | *Global level* | *Considered Sensitive* |
|---|---|---|---|
| Juglans California Woodland Alliance | S3 | G3 | Yes |
| Adenostoma fasciculatum-Salvia apiana Shrubland Alliance | S3 | G3 | Yes |
| Opuntia littoralis Shrubland | S3 | G4 | Yes (High) |
| Platanus racemosa Woodland Alliance | S3 | G3 | Yes |
| Quercus agrifolia Woodland Alliance | S4 | G5 | Yes |
| Salix lasiolepis Shrubland Alliance | S4 | G4 | Yes |
| Eriogonum fasciculatum-Salvia apiana Shrubland Alliance | S4 | G4 | No |
| Artemisia californica-Eriogonum fasciculatum Shrubland Alliance | S4 | G4 | Yes |
| Eriogonum fasciculatum-Salvia mellifera Shrubland Alliance | S4 | G4 | Yes |
| Adenostoma fasciculatum Shrubland Alliance | S5 | G5 | No |

[4] As stated by CDFW "Natural Communities have been part of the Natural Heritage conservation triad, along with plants and animals, since the inception in 1979 of California's natural heritage program, the California Natural Diversity Data Base (CNDDB). Natural Community elements were at first classified according to "Preliminary Descriptions of the Terrestrial Natural Communities of California" (Holland 1986). Since the mid-1990s, however, CDFW and our partners, including the California Native Plant Society (CNPS), have been working on classifying vegetation types using the new state standards embodied in the Survey of California Vegetation, which comply with the National Vegetation Classification Standard (NVCS). We now use the terms "Natural Communities" and "vegetation types" interchangeably."

**Table 3.3-2 Sensitive Natural Communities/Habitats within the City and Its SOI**

| *Alliance* | *State Level* | *Global level* | *Considered Sensitive* |
|---|---|---|---|
| Adenostoma fasciculatum-Salvia mellifera Shrubland Alliance | S4 | G4 | Yes |
| Artemisia californica Shrubland Alliance | S5 | G5 | Yes |
| Baccharis pilularis Shrubland Alliance | S5 | G5 | No |
| Eriogonum fasciculatum Shrubland Alliance | S5 | G5 | No |
| Acmispon glaber Shrubland Alliance | S5 | G5 | No |

Notes: Ranking of alliances according to their degree of imperilment (as measured by rarity, trends, and threats) follows NatureServe's Heritage Methodology, in which all alliances are listed with a S (state) rank and G (global) rank.

State Ranking: The state rank (S-rank) is assigned much the same way as the global rank, but state ranks refer to the imperilment status only within California's state boundaries.

S1 = Critically Imperiled—Critically imperiled in the state because of extreme rarity (often 5 or fewer populations) or because of factor(s) such as very steep declines making it especially vulnerable to extirpation from the state.

S2 = Imperiled—Imperiled in the state because of rarity due to very restricted range, very few populations (often 20 or fewer), steep declines, or other factors making it very vulnerable to extirpation from the state.

S3 = Vulnerable—Vulnerable in the state due to a restricted range, relatively few populations (often 80 or fewer), recent and widespread declines, or other factors making it vulnerable to extirpation from the state.

S4 = Apparently Secure—Uncommon but not rare in the state; some cause for long-term concern due to declines or other factors.

S5 = Secure—Common, widespread, and abundant in the state.

Global Ranking: The global rank (G-rank) is a reflection of the overall status of an element throughout its global range. Both Global and State ranks represent a letter and number score that reflects a combination of Rarity, Threat, and Trend factors, with weighting being heavier on Rarity than the other two.

G1 = Critically Imperiled—At very high risk of extinction due to extreme rarity (often 5 or fewer populations), very steep declines, or other factors.

G2 = Imperiled—At high risk of extinction due to very restricted range, very few populations (often 20 or fewer), steep declines, or other factors.

G3 = Vulnerable—At moderate risk of extinction due to a restricted range, relatively few populations (often 80 or fewer), recent and widespread declines, or other factors.

G4 = Apparently Secure—Uncommon but not rare; some cause for long-term concern due to declines or other factors.

G5 = Secure—Common; widespread and abundant.

*Source: Environmental Science Associates, 2019.*

## Wildlife Corridors

Early definitions of habitat corridors approached the concept from a very literal perspective describing them as 'linear' or 'narrow' strips of land which serve as linkages between historically connected habitat/natural areas, and are meant to facilitate movement between these natural areas. More recent definitions reflect a broadened understanding of movement and habitat corridors, which are now described as components of the landscape that facilitate the movement of organisms and processes between areas of intact habitat including both biotic processes (e.g. animal movement, plant propagation, genetic exchange) and abiotic processes (water, energy, materials).

In broad terms, there are three types of wildlife movement in corridors:

- Dispersal- one-way movement away from a home site;
- Migration- round trip seasonal movements; and,
- Home range- movements to support daily movements including breeding, resting and foraging.

There are generally three habitat types within wildlife corridors:

- Transitional habitat- suitable only for movement of a disperser;
- Marginal habitat- allows survival and sometimes reproduction; and,
- Survival habitat- "good habitat" in which both survival and reproduction can occur.

All of these types of corridors and habitats exist in the Planning Area and to varying degrees provide habitat connectivity. These include current open space areas and the natural areas of City parks and the SOI and, to a lesser degree mature ornamental woodlands. Connectivity can be broken down into 'structural connectivity' and 'functional connectivity.' Structural connectivity refers to the physical relationship between landscape elements whereas functional connectivity describes the degree to which landscapes actually facilitate or impede the movement of organisms and processes. Functional connectivity is a product of both landscape structure and the response of organisms and processes to this structure. Thus, functional connectivity or corridor permeability is both species- and landscape-specific. Distinguishing between these two types of connectivity is important because structural connectivity does not imply functional connectivity. That is, in contrast to landscape connectivity – which characterizes the capacity of individual species to move between areas of habitat via corridors and habitat linkage zones – permeability refers to the degree to which regional landscapes, encompassing a variety of natural, semi-natural and developed land cover types, are conducive to wildlife movement and sustain ecological processes. Major roadway arterials, suburban development and areas of intense human activity are examples of non-natural features that can result in a corridor being highly impermeable to many wildlife species.

Tonner Canyon, to the southeast of the City within the City's SOI, is an important part of a regional wildlife movement corridor that provides a linkage between the Cleveland National Forest in the Santa Ana Mountains (via the Cold Canyon State Route undercrossing that has been converted from vehicular movement to wildlife movement) and the Chino Hills (including the 14,000-acre Chino Hills State Park). From the State Park, the corridor continues to the west through Tonner

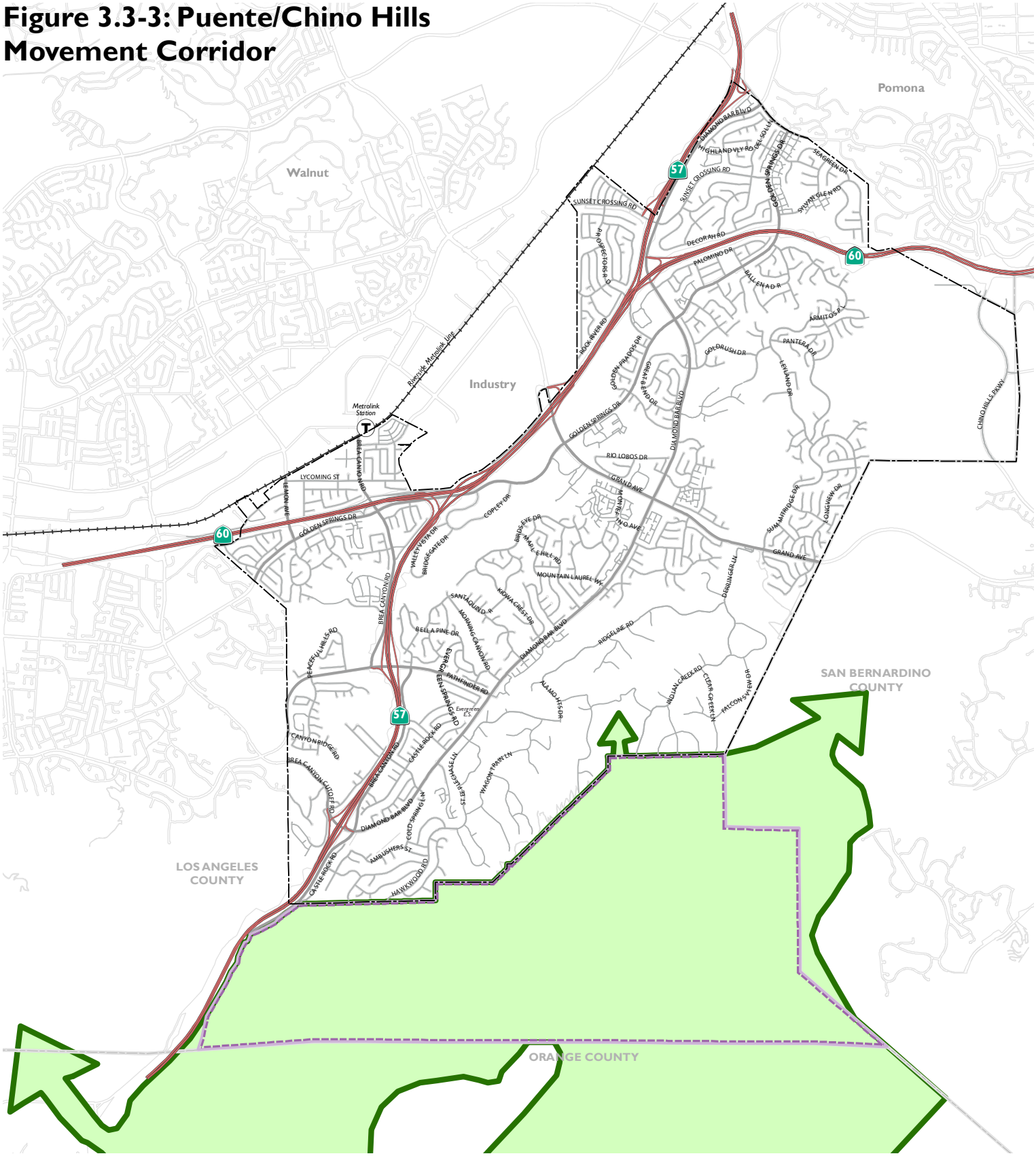
Canyon into the Puente Hills. The importance of Tonner Canyon is due not only to its being largely undeveloped, but also its funneling effect on wildlife movement to the only natural undercrossing of State Route 57. Figure 3.3-3 provides a general delineation of the corridor in relation to the Planning Area.

The corridor, known as the Puente-Chino Hills Wildlife Corridor, has been the subject of several research studies on the amphibians, reptiles, birds and mammals. The results of these studies are summarized in Spencer, along with his own analysis (Spencer, 2005). According to Spencer, this corridor appears to be functional for at least large mammals and birds, such as mountain lions, bobcat, coyote, mule deer, California gnatcatcher, and northern harrier, although moving west from the Chino Hills there is a declining gradient of amphibian and reptile diversity. The same may hold true for small mammals as the result increasing edge effects and barriers to movement.

The Puente-Chino Hills Wildlife Corridor has also been the focus of the Wildlife Corridor Conservation Authority (WCCA), a public and private coalition, and the Puente Hills Habitat Preservation Authority that obtain funds to purchase land for the corridor.

In addition to the ecological importance of the corridor, the SOI has been designated as a component of the Los Angeles County General Plan Significant Ecological Areas (SEA) that identifies biologically significant areas in which a balance between land development and conservation is deemed necessary (Los Angeles County Department of Regional Planning 2009). Within a SEA, proposed County regulations allow for "limited, controlled development that does not jeopardize the unique biotic diversity within the County." The Puente Hills SEA, (previously called Tonner Canyon-Puente Hills SEA), is part of SEA #15, which is adjacent to the southern border of the City (Figure 3.3-4). SEA 15, with its diverse mixture of habitats including grasslands, coastal sage scrub, chaparral, riparian, and oak and walnut woodlands, offers a rich ecosystem within Los Angeles County. SEA 15 was also identified as a "regional, riparian woodland complex" in the City's existing General Plan (City of Diamond Bar General Plan 1995). It supports a wide range of wildlife and plant species, as well as numerous special status species. SEA 15, as well as Tonner Canyon as a whole, is regionally important to many resident and migrating species, especially large mammals, wintering raptors, and songbirds, in large part due to regional connectivity. Although the City is not subject to the County's SEA Program, it has acknowledged the biological significance of SEA 15 and, at one time, had established its own SEA Technical Advisory Committee to provide advice regarding projects adjacent to the SEA.

# Figure 3.3-3: Puente/Chino Hills Movement Corridor




Puente/Chino Hills Movement Corridor

City of Diamond Bar

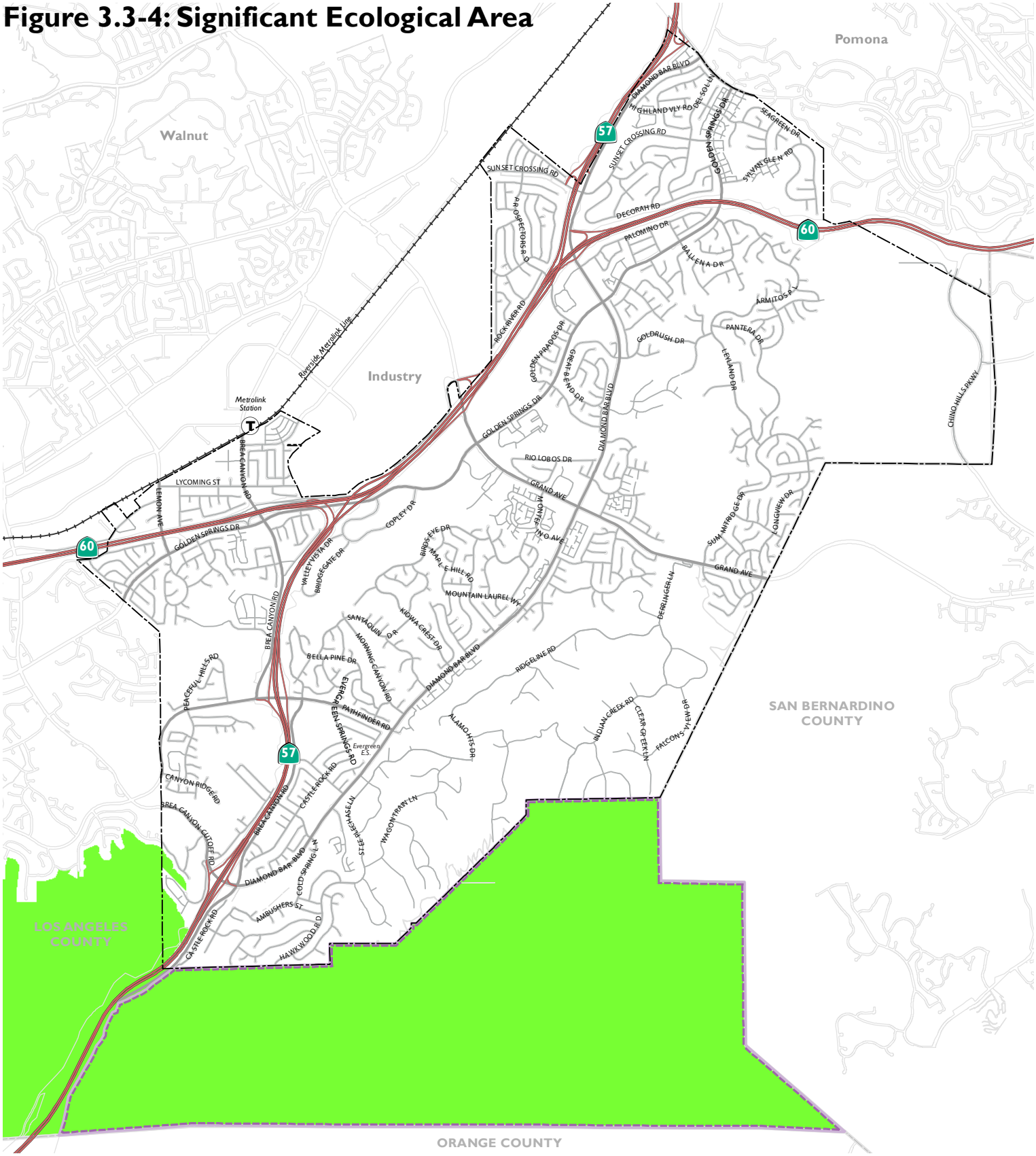
Sphere of Influence

County Boundary

*Source: ESA, 2019;*
*City of Diamond Bar 2019; Dyett & Bhatia, 2019*

0 0.25 0.5 1
MILES

# Figure 3.3-4: Significant Ecological Area




Significant Ecological Area (Existing)

City of Diamond Bar

Sphere of Influence

County Boundary

*Source: ESA, 2019;*
*City of Diamond Bar 2019; Dyett & Bhatia, 2019*

0 0.25 0.5 1
MILES

## Special-Status Species

### *Special Status Plants*

Sensitive plants include those listed, or candidates for listing, by the USFWS and CDFW, and species considered sensitive by the CNPS (particularly Lists 1A, 1B, and 2). Several sensitive plant species were reported in the California Natural Diversity Database (CNDDB) as recorded within a 12-quad search of the City and its SOI, although the majority of these species are not expected to be present for one or both of the following reasons: suitable habitat to support the species is not present within the Planning Area; or the species occurrences are highly localized some distance from the Planning Area. Table 3.3-3 describes the habitat requirements and status of each sensitive plant species with a low, moderate, or high potential to occur within the Planning Area, as determined through the literature review and habitat evaluations made during the reconnaissance survey.

### *Special Status Wildlife*

Special status wildlife species include those species listed as endangered or threatened under the federal Endangered Species Act FESA or California's Endangered Species Act (CESA), candidates for listing by USFW or CDFW, California Species of Special Concern (SSC) by the CDFW, fully protected by CDFW, or on the CDFW watch list. Table 3.3-4 provides a summary of the sensitive wildlife species with a low, moderate, or high potential of occurring within the Planning Area based upon their known geographic ranges, distributions, and preferred habitats.

### *Other Species to Consider*

In addition to the state and federal listing, the Los Angeles County Sensitive Bird Species Working Group (SBSWG) maintains a list of birds that are considered sensitive at the county level.[5] These species are included in Table 3.3-4 insofar as the SBSWG considers them to be vulnerable to extirpation in Los Angeles County and therefore warranting consideration in the environmental consideration of site-specific projects.

[5] http://planning.lacounty.gov/site/sea/wp-content/uploads/2018/08/LA-Countys-Sensitive-Bird -Species.pdf

**Table 3.3-3: Special Status Plant Species Occurring or Potentially Occurring within the Planning Area**

| *Scientific Name* | *Common Name* | *CNPS Listing Status* | *Preferred Habitat* | *Records* |
|---|---|---|---|---|
| **Angiosperms (Dicotyledons)** | | | | |
| ***Asteraceae*** | ***Sunflower Family*** | | | |
| Microseris douglasii var. platycarpha | Small-flowered microseris | 4.2 | Cismontane woodland, coastal scrub, valley and foothill grassland/clay. | Recorded in study area south of Diamond Ranch High School. |
| Senecio aphanactis | Rayless ragwort | 2B.2 | Cismontane woodland, coastal scrub, drying alkaline flats. | Puddingstone Dam (1932); moderate potential where habitat occurs. |
| Pseudognaphalium leucocepalum | White rabbiy-tobacco | 2B.2 | Sandy wash habitats | Not recorded from the Puente Hills; low potential in study area. |
| Symphyotrichum defoliatum | San Bernardino aster | 1B.2 | Low potential to occur in moist habitats. | Recorded from study area vicinity, but possibly extirpated. |
| ***Brassicaceae*** | ***Mustard Family*** | | | |
| Lepidium virginicum var. robinsonii | Robinson's pepper grass | 4.3 | Chaparral and coastal scrub. | Recorded in the Puente Hills and within the study area |
| ***Convolvulaceae*** | ***Morning-Glory Family*** | | | |
| Convolvulus simulans | small-flowered morning glory | 4.2 | Coastal scrub, valley and foothill grassland/clay, serpentine seeps. | Moderate potential where habitat occurs. |
| ***Crassulaceae*** | ***Stonecrop Family*** | | | |
| Dudleya multicaulis | Many-stemmed dudleya | 1B.2 | California plant communities including sage scrub, valley and foothill grassland; heavy clay soils or rock outcrops. | Bonelli Regional Co. Park (1987 and 1982); recorded on Way Hill (1987); Many CNDDB records throughout the area; high potential to occur in study area. |

**Table 3.3-3: Special Status Plant Species Occurring or Potentially Occurring within the Planning Area**

| *Scientific Name* | *Common Name* | *CNPS Listing Status* | *Preferred Habitat* | *Records* |
|---|---|---|---|---|
| ***Fabaceae*** | ***Legume Family*** | | | |
| Astragalus brauntonii[1] | Braunton's milk-vetch | 1B.1 | Sage scrub, chaparral, valley and foothill grassland, closed cone coniferous forest; limestone endemic, carbonate soils, recent burns and disturbed areas. | Recorded in San Gabriel Mountain foothills to the north and the Santa Ana Mountain foothills to the south; moderate potential to occur in study area. |
| Quercus engelmannii | Engelmann oak | 4.2 | Chaparral, cismontane woodland, riparian woodland, valley and foothill grassland. | Recorded in the Chino and Puente Hills; moderate potential to occur in study area. |
| ***Hydrophyllaceae*** | ***Waterleaf Family*** | | | |
| Phacelia hubbyi | Hubby's phacelia | 4.2 | Sage scrub and chaparral | Recorded in the Puente Hills and west Pomona hillsides; high potential to occur in the study area. |
| ***Juglandaceae*** | ***Walnut Family*** | | | |
| Juglans californica | Southern California black walnut | 4.2 | Sage scrub, chaparral, cismontane woodland; often in association with oaks/oak woodland; frequently found on steep hillsides with northern exposures; deep alluvial soils. | Occurs throughout much of the study area. |

**Table 3.3-3: Special Status Plant Species Occurring or Potentially Occurring within the Planning Area**

| *Scientific Name* | *Common Name* | *CNPS Listing Status* | *Preferred Habitat* | *Records* |
|---|---|---|---|---|
| ***Liliaceae*** | ***Lily Family*** | | | |
| Brodiaea filifolia | Thread-leaved brodiaea | 1B.1 | Sage scrub, valley/foothill grassland, cismontane woodland; vernal pools (clay soils). | Recorded from the San Gabriel Mountains to the north and Santiago Hills to the southeast; low potential to occur in the study area. |
| Calochortus catalinae | Catalina mariposa lily | 4.2 | Openings in chaparral, valley and foothill grassland, cismontane woodland; heavy soils. | Recorded within the study area within openings in shrublands and scrub. |
| Calochortus clavatus var. gracilis | Slender mariposa lily | 1B.2 | Chaparral, especially in foothill canyons.; generally found in shade. | Low potential where habitat occurs. |
| Calochortus plummerae | Plummer's mariposa lily | 4.2 | Sage scrub, valley and foothill grassland, yellow pine forest; dry, rocky or sandy sites, granitic or alluvial soil; to 4,800 feet. | Potentially present in the study area. |
| Calochortus weedii var. intermedius | Intermediate mariposa lily | 1B.2 | Chaparral, coastal scrub, valley and foothill grasslands. | Recorded in study area and at Elephant Hill (1991) in Pomona. |
| ***Orchidaceae*** | ***Orchid Family*** | | | |
| Piperia cooperi | Cooper's rein-orchid | 4.2 | Scrub, chaparral and oak/walnut woodlands | Not recorded in the Puente Hills, but is recorded in the Santa Ana River Canyon to the south; low potential to occur in the study area. |

**Table 3.3-3: Special Status Plant Species Occurring or Potentially Occurring within the Planning Area**

| *Scientific Name* | *Common Name* | *CNPS Listing Status* | *Preferred Habitat* | *Records* |
|---|---|---|---|---|
| ***Polygalaceae*** | ***Milkwort Family*** | | | |
| Polygala cornuta var. fishiae | Fish's milkwort | 4.3 | Oak/walnut woodlands and chaparral | Recorded in Chino Hills State Park to the south; high potential to occur in the study area. |
| ***Roseaceae*** | ***Rose Family*** | | | |
| Horkelia cuneata ssp. puberula | Mesa horkelia | 1B.1 | Prefers chaparral, woodland, and coastal scrub habitats. | Moderate potential to occur in the study area. |

Notes:

1. Federally listed as endangered

CNPS Listing Status:

List 1B - Plants Rare, Threatened, or Endangered in California and elsewhere

List 2 - Plants Rare, Threatened, or Endangered in California, but more common elsewhere

List 3 - Plants about which we need more information – a review list

List 4 - Plants of limited distribution – a watch list

The CNPS recently added "threat ranks," which parallel the ranks used by the California Natural Diversity Database (CNDDB). These ranks are added as a decimal code after the CRPR List (e.g., List 1B.1). The threat codes are as follows:

0.1 - Seriously endangered in California (over 80% of occurrences threatened/high degree and immediacy of threat)

0.2 - Fairly endangered in California (20–80% occurrences threatened)

0.3 - Not very endangered in California (<20% of occurrences threatened or no current threats known)

*Source: California Native Plant Society, 2019.*

**Table 3.3-4: Special Status Animal/Wildlife Species Occurring or Potentially Occurring within the Planning Area**

| *Scientific Name* | *Common Name* | *Agency Listing Status* | *Preferred Habitat* | *Records* |
|---|---|---|---|---|
| **INVERTEBRATES** | | | | |
| Bombus crotchii | Crotch bumblebee | S1S2 G3G4 | Recorded at scattered locations in southern California. | High potential to occur in study area. |
| Helminthoglypta tudiculata | Southern California shoulder-band snail | S1S2 | Recorded at scattered locations in southern California. | High potential to occur in study area. |
| Helminthoglypta traskii | Trask's shoulder-band snail | G1G2 S1 | Recorded at scattered locations in southern California. | High potential to occur in study area. |
| **VERTEBRATES** | | | | |
| **Amphibians** | | | | |
| ***Pelobatidae*** | ***Spadefoot Toad Family*** | | | |
| Spea hammondii | Western spadefoot | SSC | Open areas in lowland grasslands, chaparral, and oak woodlands, areas of sandy or gravelly soil in alluvial fans, washes, and floodplains. | High potential to occur in the study area. |
| ***Salamandridae*** | ***Newt Family*** | | | |
| Taricha torosa | Coast range newt | SSC | Moist woodlands. | Not recorded in the Puente/Chino Hills; low potential to occur in the study area. |

**Table 3.3-4: Special Status Animal/Wildlife Species Occurring or Potentially Occurring within the Planning Area**

| *Scientific Name* | *Common Name* | *Agency Listing Status* | *Preferred Habitat* | *Records* |
|---|---|---|---|---|
| **Reptiles** | | | | |
| ***Colubridae*** | ***Colubrid Snake Family*** | | | |
| Lampropeltis zonata pulchra | San Diego mountain kingsnake | SSC | Moist woods, woodlands, chaparral and sage scrub. | Moderate potential to occur in study area. |
| Salvador hexalepis virgultea | Coast patch-nosed snake | SSC | Sage scrub, chaparral, and oak/walnut woodlands. | Moderate potential to occur in study area. |
| Thamnophis hammondii | Two-striped garter snake | SSC | Riparian and freshwater marshes with perennial water. | Moderate potential to occur in the study area. |
| Arizona elegans occidentalis | California glossy snake | SSC | Sage scrub, chaparral, and oak/walnut woodlands with loose soil for burrowing. | Moderate potential to occur in the study area. |
| ***Emydidae*** | ***Turtle Family*** | | | |
| Emmys marmorata | Western pond turtle | SSC | Ponds, slow moving streams. | Known to occur in Brea Creek; moderate potential to occur in suitable habitat elsewhere in the study area. |
| ***Iguanidae*** | ***Iguanid Lizard Family*** | | | |
| Phrynosoma blainvillii | Coast horned lizard | SSC | Most valley and foothill scrub, chaparral and woodland natural communities. | High potential in open space in the study area. |

**Table 3.3-4: Special Status Animal/Wildlife Species Occurring or Potentially Occurring within the Planning Area**

| *Scientific Name* | *Common Name* | *Agency Listing Status* | *Preferred Habitat* | *Records* |
|---|---|---|---|---|
| ***Teiidae*** | ***Whiptail Lizard Family*** | | | |
| Anniella stebbinsi | Southern California legless lizard | SSC | Several habitats but especially in valley-foothill woodlands, chaparral, and scrub habitats. | Moderate potential in habitats in the study area. |
| Aspidoscelis tigris stejnegeri | Coastal whiptail | SSC | Several habitats but especially in valley-foothill woodlands, chaparral, and scrub habitats. | High potential in habitats in the study area. |
| ***Viperiidae*** | ***Viper Snake Family*** | | | |
| Crotalus ruber | Red diamond rattlesnake | SSC | Cactus and sage scrub and chaparral. | High potential in suitable habitats in the study area. |
| **Birds** | | | | |
| ***Accipitridae*** | ***Hawks, Kites, Harriers and Eagle Family*** | | | |
| Aquila chrysaetos | Golden eagle | SSC, SFP, FP | Mountains, deserts, and open country; prefer to forage over grasslands, deserts, savannahs and early successional stages of forest and shrub habitats. | Recorded over the study area; nesting in the Chino Hills; High potential to forage within the study area. |
| Circus hudsonius | Northern harrier | SSC | Freshwater marshes, grasslands, and agricultural fields. | Recorded in the Tres Hermanos and Firestone Scout Reservation areas. |

**Table 3.3-4: Special Status Animal/Wildlife Species Occurring or Potentially Occurring within the Planning Area**

| *Scientific Name* | *Common Name* | *Agency Listing Status* | *Preferred Habitat* | *Records* |
|---|---|---|---|---|
| Elanus leucurus | White-tailed kite | SFP | Grasslands with scattered trees, near marshes, along highways. | Recorded in the Tres Hermanos and Firestone Scout Reservation areas. High potential in study area. |
| Buteo regalis | Ferruginous hawk | SBSWG | Winters in expansive rangelands and agricultural areas in the region. | Recorded in the Chino Basin; moderate potential to occur in the study area. |
| ***Alaudidae*** | ***Lark Family*** | | | |
| Eremophila alpestris | Horned lark | SBSWG | Open ground. | Moderate potential to occur in the Tres Hermanos and SOI areas. |
| ***Falconidae*** | ***Falcon Family*** | | | |
| Falco mexicanus | Prairie falcon | SBSWG | Open country, especially arid. | Moderate potential to occur migrating through the study area. |
| ***Stringidae*** | ***True Owl Family*** | | | |
| Athene cunicularia | Burrowing owl | SSC | Dry grasslands and agricultural, and scrub areas. | Reported from the Tres Hermanos Ranch High potential to occur within the study area. |
| Asio otus | Long-eared owl | SSC | Riparian and live oak woodlands. | High particularly in oak and walnut woodlands. |
| Asio flammeus | Short-eared owl | SSC | Winters in open areas. | Low potential in herbaceous stands. |

**Table 3.3-4: Special Status Animal/Wildlife Species Occurring or Potentially Occurring within the Planning Area**

| *Scientific Name* | *Common Name* | *Agency Listing Status* | *Preferred Habitat* | *Records* |
|---|---|---|---|---|
| ***Troglodytidae*** | ***Wren Family*** | | | |
| Campylorhynchus brunneicapillus | Coastal cactus wren | SSC | Coastal sage scrub, vegetation with thickets of prickly pear or cholla cactus. | Recorded at Sycamore Canyon and Summit Ridge Parks; High potential wherever cactus scrub occurs. |
| ***Turdidae*** | ***Bluebird Family*** | | | |
| Sialia currucoides | Mountain bluebird | SBSWG | Winters in open country. | Moderate potential to occur in the Tres Hermanos and SOI areas. |
| ***Tyrannidae*** | ***Tyrant Flycatcher Family*** | | | |
| Empidonax traillii | Willow flycatcher | FE<br>SE | Low elevational sites: Riparian woodlands that contain water and low growing willow thickets. | Low potential for nesting. |
| ***Icteriidae*** | ***Yellow-breasted chat Family*** | | | |
| Icteria virens | Yellow-breasted chat | SSC | Riparian woodlands with a thick understory. | High potential along Brea and Tonner Creeks. |
| Sturnella neglecta | Western meadowlark | SBSWG | Grasslands, prairies, pastures, and abandoned fields. | Recorded in the study area. |
| ***Icteridae*** | ***Blackbird Family*** | | | |
| Agelaius tricolor | Tricolored blackbird | SE | Freshwater marshes and riparian scrub. | Moderate potential to forage in open areas of Tres Hermanos and Tonner Canyon. |

**Table 3.3-4: Special Status Animal/Wildlife Species Occurring or Potentially Occurring within the Planning Area**

| *Scientific Name* | *Common Name* | *Agency Listing Status* | *Preferred Habitat* | *Records* |
|---|---|---|---|---|
| ***Laniidae*** | ***Shrike Family*** | | | |
| Lanius ludovicianus | Loggerhead shrike | SSC | Open habitats with scattered shrubs, trees, posts, fences, utility lines, or other perches. | High potential to occur in Tres Hermanos and Tonner Canyon open areas. |
| ***Passerellidae*** | ***Sparrow Family*** | | | |
| Ammodramus savannarum | Grasshopper sparrow | SSC | Expansive grasslands | Recorded in the study area; moderate potential to occur in Tres Hermanos and Tonner Canyon. |
| Amphispiza belli belli | Bell's sage sparrow | SSC | Dense, dry chamise chaparral and coastal slopes of coastal sage scrub. | High potential in study area where habitat occurs. |
| Pooecetes gramineus | Vesper sparrow | SBSWG | Open grassy areas. | High potential to occur in Tres Hermanos and Tonner Canyon open areas. |
| ***Parulidae*** | ***Wood Warbler Family*** | | | |
| Setophaga petechia | Yellow warbler | SSC | Sparse to dense woodland and forest habitats with or without heavy brush understory. | High Potential in oak, rirarian and walnut woodlands. |

**Table 3.3-4: Special Status Animal/Wildlife Species Occurring or Potentially Occurring within the Planning Area**

| *Scientific Name* | *Common Name* | *Agency Listing Status* | *Preferred Habitat* | *Records* |
|---|---|---|---|---|
| ***Polioptilidae*** | ***Gnatcatchers*** | | | |
| Polioptila californica | California gnatcatcher | FT, SSC | Coastal sage scrub vegetation; generally avoids steep slopes and dense vegetation for nesting. | Several recent recorded occurrences in the study area at Summit Ridge, and Pantera parks, Steep Canyon and hills south of Diamond Ranch High School; high potential in sage scrub habitats. |
| ***Vireonidae*** | ***Vireo Family*** | | | |
| Vireo bellii pusillus | least Bell's vireo | FE, SE | Perennial and intermittent streams with low, dense riparian scrub and riparian woodland habitats; nests primarily in willows and forages in the riparian and occasionally in adjoining upland habitats. Associated with willow, cot | Reported from Tonner Canyon; Moderate potential to occur along Brea Creek |
| ***Cuculidae*** | ***Cuckoo Family*** | | | |
| Geococcys californianus | greater roadrunner | SBSWG | Open country with scattered brush. | Recorded in the study area. |

**Table 3.3-4: Special Status Animal/Wildlife Species Occurring or Potentially Occurring within the Planning Area**

| *Scientific Name* | *Common Name* | *Agency Listing Status* | *Preferred Habitat* | *Records* |
|---|---|---|---|---|
| **Mammals** | | | | |
| ***Heteromyidae*** | ***Kangaroo Rat, Pocket Mice, and Kangaroo Mice Family*** | | | |
| Chaetodipus fallax | NW San Diego pocket mouse | SSC | Sandy herbaceous areas, usually in association with rocks or coarse gravel, sagebrush, scrub, annual grassland, chaparral and desert scrubs. | High potential in study area particularly in cactus and sage scrub occurs. |
| ***Molossidae*** | ***Free-tailed Bats*** | | | |
| Eumops perotis californicus | Western mastiff bat | SSC | In arid and semi-arid lowlands; roosts in cliffs and rock crevices. | Low potential for roosting sites but may forage in the study area. |
| ***Vespertilionidae*** | ***Evening Bat Family*** | | | |
| Lasiurus blossevillii | Western red bat | | Roosts in cliffs and in buildings. | Moderate potential in study area; roosts in exfoliating bark on many tree species including ornamental trees. |
| Lasiurus xanthinus | Western yellow bat | SSC | Roosts primarily in palms under dead fronds. | Moderate potential to roost in the study area. |
| Antrozous pallidus | Pallid bat | SSC | Roosts in cliffs, crevices, mine tunnels, caves, house attics and other man-made structures. | High potential in study area; roosts in exfoliating bark on oak trees. |

**Table 3.3-4: Special Status Animal/Wildlife Species Occurring or Potentially Occurring within the Planning Area**

| *Scientific Name* | *Common Name* | *Agency Listing Status* | *Preferred Habitat* | *Records* |
|---|---|---|---|---|
| ***Leporidae*** | ***Rabbit and Hare Family*** | | | |
| Lepus californicus bennetti | San Diego black-tailed jackrabbit | SSC | Open brushlands and scrub habitats. | Moderate potential to occur throughout the study area. |
| ***Muridae*** | ***Mice, Rats, and Vole Family*** | | | |
| Neotoma lepida intermedia | San Diego desert woodrat | SSC | Chaparral, coastal sage scrub, and oak woodland. | High potential to occur where suitable habitat is found. |
| ***Procyonidae*** | ***Raccoon Family*** | | | |
| Bassariscus astutus | Ringtail cat | SFP | Commonly found in rocky habitats, where it nests in the hollows of trees or abandoned wooden structures. | Seldom observed; low potential to occur in the study area. |
| ***Mustelidae*** | ***Weasel Family*** | | | |
| Taxidea taxus | American badger | SSC | Open grasslands with available prey. | High potential to occur in the study area. |

Notes: Agency Listing Status:

FE Federally listed as Endangered

FT Federally listed as Threatened

FP Federally protected

SE State-listed as Endangered

SFP State Fully Protected

SSC California Species of Special Concern

NatureServe Ranking:

S1 = Critically Imperiled—Critically imperiled in the state because of extreme rarity (often 5 or fewer populations) or because of factor(s) such as very steep declines making it especially vulnerable to extirpation from the state.

S2 = Imperiled—Imperiled in the state because of rarity due to very restricted range, very few populations (often 20 or fewer), steep declines, or other factors making it very vulnerable to extirpation from the state.

S3 = Vulnerable—Vulnerable in the state due to a restricted range, relatively few populations (often 80 or fewer), recent and widespread declines, or other factors making it vulnerable to extirpation from the state.

**Table 3.3-4: Special Status Animal/Wildlife Species Occurring or Potentially Occurring within the Planning Area**

| *Scientific Name* | *Common Name* | *Agency Listing Status* | *Preferred Habitat* | *Records* |
|---|---|---|---|---|
| S4 = Apparently Secure—Uncommon but not rare in the state; some cause for long-term concern due to declines or other factors. | | | | |
| S5 = Secure—Common, widespread, and abundant in the state. | | | | |
| G1 = Critically Imperiled—At very high risk of extinction due to extreme rarity (often 5 or fewer populations), very steep declines, or other factors. | | | | |
| G2 = Imperiled—At high risk of extinction due to very restricted range, very few populations (often 20 or fewer), steep declines, or other factors. | | | | |
| G3 = Vulnerable—At moderate risk of extinction due to a restricted range, relatively few populations (often 80 or fewer), recent and widespread declines, or other factors. | | | | |
| G4 = Apparently Secure—Uncommon but not rare; some cause for long-term concern due to declines or other factors. | | | | |
| G5 = Secure—Common; widespread and abundant. | | | | |

*Source: California Department of Fish and Wildlife Natural Diversity Database, 2018.*

# REGULATORY SETTING

## Federal Regulations

The following provides an overview of the applicable regulations with regard to the biological resources that may be present within the City and its Sphere of Influence (SOI).

### *Federal Endangered Species Act and Special Status Classifications*

The federal Endangered Species Act (FESA) of 1973 defines an endangered species as "any species which is in danger of extinction throughout all or a significant portion of its range." A threatened species is defined as "any species which is likely to become an Endangered Species within the foreseeable future throughout all or a significant portion of its range." Under provisions of Section 9(a)(1)(B) of the FESA, unless properly permitted, it is unlawful to "take" any listed species. "Take" is defined in Section 3(18) of FESA: "...harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct." Further, the U.S. Fish and Wildlife Service (USFWS), through regulation, has interpreted the terms "harm" and "harass" to include certain types of habitat modification as forms of "take." These interpretations, however, are generally considered and applied on a case-by-case basis and often vary from species to species. Of legal note, the FESA does not protect or regulate federal threatened or endangered listed plant species on private property unless a federal action, such as regulatory permit approval or federal funding, is involved.

All references to federally protected species in this section include the most current published status or candidate category to which each species has been assigned by USFWS.

### *Federal Clean Water Act, Section 404*

Section 404 of the Federal Clean Water Act (CWA) regulates the discharge of dredged material, placement of fill material, or excavation within waters of the United States and authorizes the Secretary of the U.S. Army, through the Chief of Engineers, to issue permits for such actions. "Waters of the United States" are defined by the CWA as "rivers, creeks, streams, and lakes extending to their headwaters and any associated wetlands." Wetlands are defined by the CWA as "areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support a prevalence of vegetation typically adapted for life in saturated soil conditions." The permit review process entails an assessment of potential adverse effects on U.S. Army Corps of Engineers (USACE) jurisdictional waters of the United States and wetlands.

### *Federal Clean Water Act, Section 401*

The mission of the California Regional Water Quality Control Board (RWQCB) is to develop and enforce water quality objectives and implement plans that will best protect the beneficial uses of the State's waters, recognizing local differences in climate, topography, geology, and hydrology. Section 401 of the CWA requires that:

> "any applicant for a Federal permit for activities that involve a discharge to waters of the State, shall provide the Federal permitting agency a certification from the State in which

the discharge is proposed that states that the discharge will comply with the applicable provisions under the Federal Clean Water Act."

Before the USACE will issue a Section 404 permit, the Project Applicant must apply for and receive a Section 401 water quality certification from the RWQCB. A complete application for 401 Certification will include a detailed Water Quality Management Plan (WQMP) that addresses the key water quality features of the Project to ensure the integrity of water quality in the area during and after construction.

Under separate authorities granted by state law (i.e., the Porter-Cologne Water Quality Control Act), a RWQCB may choose to regulate discharges of dredge or fill materials by issuing or waiving (with or without conditions) Waste Discharge Requirements (WDRs), a type of state discharge permit, instead of taking a water quality certification action. Processing of a WDR is similar to that of a Section 401 certification; however, the RWQCB has slightly more discretion to add conditions to a project under the Porter-Cologne Water Quality Control Act than under the federal CWA.

*International Migratory Bird Treaty Act*

The Migratory Bird Treaty Act (MBTA) protects native bird species from destruction or harm. This protection extends to individuals as well as any part, nest, or eggs of any bird listed as migratory.

In practice, federal permits for projects potentially impacting migratory birds typically have conditions that require pre-disturbance surveys for nesting birds. Nesting season is typically observed during the Springtime from February 15$^{th}$ to August 31$^{st}$. In the event nesting is observed, a buffer area with a specified radius must be established around the nest, within which no disturbance or intrusion is allowed until the young have fledged and left the nest or it has been determined that the nest has failed. If not otherwise specified in the permit, the size of the buffer area varies with species and local circumstances (e.g., presence of busy roads, intervening topography) and is based on the professional judgment of a monitoring biologist.

"It is unlawful to take or possess any migratory nongame bird as designated in the Migratory Bird Treaty Act or any part of such migratory nongame bird except as provided by rules and regulations adopted by the Secretary of the Interior under provisions of the Migratory Treaty Act." This act does not apply to non-native birds, including the European starling, house sparrow, brown-headed cowbird and rock dove (that are commonly found in urban and suburban environments).

## State Regulations

### *State of California Fish and Game Code*

In a similar fashion to the MBTA, Sections 3503, 3503.5, and 3513 of the California Fish and Game Code protect native birds. Mitigation for avoidance of impacts on nesting native birds are typically necessary for individual projects to comply with these Sections of the Fish and Game Code.

#### Section 3503

Section 3503 states "It is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by this code or any regulation made pursuant thereto."

#### Section 3503.5

Section 3503.5 states "It is unlawful to take, possess, or destroy any birds in the orders Falconiformes or Strigiformes (birds-of-prey) or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by this code or any regulation adopted pursuant thereto."

#### Section 3513

Section 3513 states "It is unlawful to take or possess any migratory nongame bird as designated in the Migratory Bird Treaty Act or any part of such migratory nongame bird except as provided by rules and regulations adopted by the Secretary of the Interior under provisions of the Migratory Treaty Act." This code does not apply to non-native birds, including the European starling, house sparrow, brown-headed cowbird and rock dove (that are commonly found in urban and suburban environments).

#### Section 1602

Section 1602 of the California Fish and Game Code requires any entity (e.g., person, state or local government agency, or public utility) which proposes a project that will substantially divert or obstruct the natural flow of, or substantially change or use any material from the bed, channel, or bank of, any river, stream, or lake, or deposit or dispose of debris, waste, or other material containing crumbled, flaked, or ground pavement where it may pass into any river, stream, or lake, to first notify the California Department of Fish and Wildlife (CDFW) of the project. The CDFW will review the project as it affects streambed habitats within the project area. The CDFW may then place conditions on the Section 1602 clearance to avoid, minimize, and mitigate the potentially significant adverse effects within CDFW jurisdictional limits.

### *California Endangered Species Act – State of California Protection and Special Status Classifications*

California's Endangered Species Act (CESA) defines an "endangered species" as:

*"a native species or subspecies of a bird, mammal, fish, amphibian, reptile, or plant which is in serious danger of becoming extinct throughout all, or a significant portion, of its range due to one or more causes, including loss of habitat, change in habitat, overexploitation, predation, competition, or disease."*

The State defines a "threatened species" as:

*"a native species or subspecies of a bird, mammal, fish, amphibian, reptile, or plant that, although not presently threatened with extinction, is likely to become an endangered species in the foreseeable future in the absence of the special protection and management efforts required by this chapter. Any animal determined by the commission as rare on or before January 1, 1985 is a threatened species."*

"Candidate species" is defined as:

*"a native species or subspecies of a bird, mammal, fish, amphibian, reptile, or plant that the commission has formally noticed as being under review by the department for addition to either the list of endangered species or the list of threatened species, or a species for which the commission has published a notice of proposed regulation to add the species to either list.". Candidate species may be afforded temporary protection as though they were already listed as threatened or endangered at the discretion of the Fish and Game Commission. Unlike the FESA, CESA does not include listing provisions for invertebrate species.*

Article 3, Sections 2080 through 2085, of the CESA addresses the taking of threatened or endangered species by stating:

*"no person shall import into this State, export out of this State, or take, possess, purchase, or sell within this State, any species, or any part or product thereof, that the commission determines to be an endangered species or a threatened species, or attempt any of those acts, except as otherwise provided."*

Under the CESA, "take" is defined as, "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill."

Additionally, some sensitive mammals and birds are protected by the State as Fully Protected Mammals or Fully Protected Birds, as described in the California Fish and Game Code, Sections 4700 and 3511, respectively.

California Species of Special Concern are species designated as vulnerable to extinction due to declining population levels, limited ranges, and/or continuing threats. Informally listed species are not protected per se, but warrant consideration in the preparation of CEQA biological assessments.

### *California Native Plant Society*

The California Native Plant Society (CNPS) is a private plant conservation organization dedicated to the monitoring and protection of sensitive species in California. CNPS has compiled an inventory comprising information focusing on geographic distribution and qualitative characterization of Rare, Threatened, or Endangered vascular plant species of California.

Sensitive species that occur or potentially could occur within the project Planning Area are based on one or more of the following: (1) the direct observation of the species during one of the biological surveys; (2) a record reported in the CNDDB; and (3) the project Planning Area is within known distribution of a species and contains appropriate habitat.

## Local Regulations

### *Tres Hermanos Conservation Authority*

Tres Hermanos Ranch is 2,445 acres: 1750 acres in the City of Chino Hills and 695 acres in the City of Diamond Bar. The land is located on both sides of Grand Avenue at Chino Hills' western border, and to the north extending into City of Diamond Bar. The Authority's Board consists of seven members – with City of Industry allotted three members, Diamond Bar two members, and Chino Hills two members. The recently created Authority is the result of a settlement of several lawsuits brought against the City of Industry by the cities of Diamond Bar and Chino Hills who opposed the development of an extensive solar field on the historical ranch property. The purchase and sale agreement to transfer the Tres Hermanos Ranch to the Conservation Authority included limits on the use of the property to "open space, public use or preservation".

### *Wildlife Corridor Conservation Authority*

The Wildlife Corridor Conservation Authority (WCCA) is a coalition of public and private entities created to provide for the proper planning, conservation, environmental protection and maintenance of the habitat and wildlife corridor between the Whittier-Puente Hills, Chino Hills, and Cleveland National Forest in the Santa Ana Mountains. In this regard, WCCA is an advisory entity with no permitting authority. However, WCCA's goals and objectives provide a meaningful context for land use decisions that may affect its mission.

### *City of Diamond Bar Municipal Code, Chapter 22.38 – Tree Preservation and Protection*

The City's Municipal Code requires the preservation and maintenance of native trees including oak, sycamore, and willow trees, as well as trees of significant cultural and historic value and pepper trees where appropriate. The purpose of these provisions is to protect and preserve these trees, with exemptions, and when removal is allowed as the result of new development, to require their replacement. Individuals are required to obtain a tree removal permit prior to removing or relocating a protected tree or developing within the protection zone of a protected tree. Individuals are required to obtain a tree pruning permit prior to pruning a protected tree with branches over four inches in diameter at the point of the cut. The maximum amount allowed for the pruning of a protected tree is 20 percent, except for oak trees which is 10 percent. When the removal or relocation of a protected tree is proposed in connection with an application for another

discretionary permit, the director may waive the requirement of a separate tree removal permit and require necessary information to be submitted as part of the discretionary permit application.

A protected tree is any of the following:

- Native Oak, walnut, sycamore and willow trees with a diameter at breast height (DBH) of eight inches or greater;
- Trees of significant historical or value as designated by the council;
- Any tree required to be preserved or relocated as a condition of approval for a discretionary permit;
- Any tree required to be planted as a condition of approval for a discretionary permit; and
- A stand of trees, the nature of which makes each tree dependent upon the others for survival.

Tree replacement/relocation standards include the following:

- Replacement trees shall be indigenous to the area whenever feasible as determined by an arborist.
- Replacement trees shall be planted at a minimum 2:1 ratio for residential properties less than 20,000 square feet. Residential parcels greater than 20,000 square feet and commercial and industrial properties shall be planted at a minimum 3:1 ratio. The director or commission may grant exceptions to these requirements or may require additional replacement trees based on the following considerations: 1) the vegetative character of the subject property; 2) the number of protected trees which are proposed to be removed in relation to the number of protected trees currently existing on the subject property; and 3) the anticipated effectiveness of the replacement of trees, as determined by arborists' report submitted by the applicant.
- Replacement trees shall be a minimum box size of 24 inches for six or fewer replacement trees. For greater than six replacement trees, the sizes shall be determined by the director. Smaller container sizes may be approved by the director or commission when additional replacement trees are provided significantly exceeding the required replacement ratios.
- Tree relocation or replacement shall be on the same site to the extent feasible. A written report by an arborist is required concerning the methodology and feasibility of transplanting trees.

  Where site conditions preclude the long-term success of replacement trees, the director or commission may require either or both of the following alternatives: 1) planting replacement trees on public property (e.g., designated open space areas or public parks); and/or 2) monetary donation to a tree replacement fund in the amount equal to the value of required replacement trees, and the cost of installation as established by an arborist's report.

*Los Angeles County Oak Tree Protection Ordinance*

The city's SOI is entirely within the unincorporated county. The Oak Tree Ordinance (Section 22.56.2050 of the Los Angeles County Code) is a permitting process intended to protect individual trees. It is the intent of the oak tree permit to maintain and enhance the general health, safety and welfare by assisting in counteracting air pollution and in minimizing soil erosion and other related environmental damage. The oak tree permit is also intended to preserve and enhance property values by conserving and adding to the distinctive and unique aesthetic character of many areas of Los Angeles County in which oak trees are indigenous. The stated objective of the oak tree permit is to preserve and maintain healthy oak trees in the development process. (Ord. 88-0157 § 1, 1988: Ord. 82-0168 § 2 (part), 1982.).

Except as otherwise provided in the ordinance, a person shall not cut, destroy, remove, relocate, inflict damage or encroach into a protected zone of any tree of the oak genus which is (a) 25 inches or more in circumference (eight inches in diameter) as measured four and one-half feet above mean natural grade; in the case of an oak with more than one trunk, whose combined circumference of any two trunks is at least 38 inches (12 inches in diameter) as measured four and one half feet above mean natural grade, on any lot or parcel of land within the unincorporated area of Los Angeles County, or (b) any tree that has been provided as a replacement tree within the unincorporated area of Los Angeles County, unless an oak tree permit is first obtained.

*Los Angeles County Oak Woodlands Conservation Management Plan*

On October 7, 2001, the Governor approved the California Oak Woodlands Conservation Act (AB 242) which requires that Los Angeles County (County) develop an Oak Woodlands Conservation Management Plan (Plan) to qualify for funding to preserve oak woodlands through the State of California's Oak Woodlands Conservation Fund (Fund). Accordingly, the County Board of Supervisors adopted Motion 95-C on October 7, 2008, which directed the Resource Conservation District of the Santa Monica Mountains (RCD) to develop such a plan. The RCD assembled a group known as the Oak Woodlands Habitat Conservation Strategic Alliance (Alliance), consisting of biologists, arborists, environmentalists, foresters, planners, Building Industry Association representatives and academics. The Alliance completed the Plan in May 2011 and the Board of Supervisors adopted Part 1 of the Plan on August 23, 2011.

As of January 2005, California Public Resources Code Section 21083.4 (2004 Senate Bill 1334) requires that when a county is determining the applicability of CEQA to a project, it must determine whether that project "may result in a conversion of oak woodlands that will have a significant effect on the environment." If such effects (either individual impacts or cumulative) are identified, the law requires that they be mitigated. Acceptable mitigation measures include, but are not limited to, conservation of other oak woodlands through the use of conservation easements and planting replacement trees, which must be maintained for seven years. One notable exemption to this law is for the "conversion of oak woodlands on agricultural land that includes land that is used to produce or process plant and animal products for commercial purposes."

# Impact Analysis

## SIGNIFICANCE CRITERIA

For the purposes of this EIR, a significant adverse impact would occur if implementation of the Proposed Project would:

**Criterion 1:** **Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service;**

**Criterion 2:** **Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or US Fish and Wildlife Service;**

**Criterion 3:** **Have a substantial adverse effect on State or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means;**

**Criterion 4:** **Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites;**

**Criterion 5:** **Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance; or**

**Criterion 6:** **Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or State habitat conservation plan.**

## METHODOLOGY AND ASSUMPTIONS

Insofar as the proposed General Plan provides a general framework for future growth of the City of Diamond Bar (City), and does not contain specific development details, this analysis is programmatic in nature. As with any analysis of this type, subsequent projects carried out under the updated General Plan may warrant site-specific biological assessments and surveys once plans have been detailed and evaluated on a project-by-project basis.

This assessment summarizes information gained largely from a literature review. The study began with a literature review conducted to determine special status natural communities and plant and animal species known to occur in the vicinity of the City. In accordance with industry accepted standards, database records for a total of nine USGS 7.5-minute quadrangles including the San Dimas and eight surrounding quadrangles were reviewed using the California Department of Fish and Wildlife (CDFW) Natural Diversity Data Base application *Rarefind* and the California Native

Plant Society (CNPS) *Electronic Inventory of Rare and Endangered Vascular Plants of California.* In addition, information provided by *ebird* and the Public & Diamond Bar Preservation Foundation were considered in this assessment. In particular, a study funded by Diamond Bar residents, Diamond Bar Responsible Land Use, Diamond Bar Preservation Alliance, and the Sierra Club provided substantial information that contributed to this assessment (Hamilton Biological, Inc., 2019). Additional background documentation relevant to the project area such as aerial imagery and the original City of Diamond Bar General Plan (1995) were also reviewed.

For each impact, organized by the significance criteria, the analysis applied the magnitude, uniqueness, and susceptibility estimates for each resource to determine potential significance. Mitigation measures were considered and applied, and then a final determination of significance reached. In conducting the impact analysis, three principal components of the *CEQA Guidelines* outlined above were considered:

- Magnitude of the impact (e.g., substantial/not substantial);
- Uniqueness of the affected resource (i.e., rarity of the resource); and
- Susceptibility of the affected resource to perturbation (i.e., sensitivity of the resource).

The evaluation of the significance of the impacts considered the interrelationship of these three components.

Biological resources may be either directly or indirectly affected by a project. Impacts may occur as a result of construction of projects anticipated under the proposed General Plan and as a result of operation after construction is complete. Furthermore, direct and indirect impacts may be either permanent or temporary. Permanent impacts result in irreversible impacts or irreversible removal of biological resources, such as the elimination of a plant or animal community or habitat loss. Temporary impacts are those considered reversible, such that biological resources can be successfully restored.

The proposed General Plan includes policies that protect and preserve biological resources within the City by designating specific resources and areas as protected, restricting activities and uses in protected areas, providing for the management of the resources on City lands, specifying impact avoidance and mitigation requirements for types of activities and by type of biological resource, and providing guidance for development and conservation decisions over the long-term. The policies anticipate the potential impacts on biological resources from the land uses and activities that are anticipated to occur under the proposed General Plan and serve to avoid, reduce, and/or mitigate those impacts. The key policies regarding biological resources are in the Conservation, Open Space, and Land Use Elements.

## IMPACTS

**Impact 3.3-1 Implementation of the Proposed Project would not have an adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service. (*Less than Significant with Mitigation*)**

## CONSTRUCTION

Adverse impacts on wildlife are generally associated with the degree of habitat loss including a habitat's physical character, quality, and diversity, in addition to abundance of vegetation. As anticipated by the proposed General Plan, construction of some projects could result in direct removal of wildlife habitat and the potential mortality of common wildlife species existing on-site as well as the displacement of more mobile species to suitable habitat areas nearby. However, with implementation of proposed General Plan policies related to resource conservation, effects on special-status species would be less than significant, as discussed below.

*Special-Status Plants*

There are 19 special status plants that have been recorded or have the potential to occur in the Planning Area. One (1) federally-listed endangered plant species (Braunton's milk-vetch) and two (2) plant species seriously threatened in California and elsewhere (Mesa horkelia and thread-leaved brodiaea – CNPS Rank 1B.1) have the potential to occur in the Planning Area. Due to the high degree of sensitivity and threat to these species, any loss of individuals and populations as the result of specific projects would be considered significant in the absence of mitigation.

Four (4) plant species (San Bernardino aster, many-stemmed dudleya, intermediate mariposa lily, and slender mariposa lily) are considered to be fairly endangered in California and elsewhere (CNPS Rank 1B.2). In the case of these species, it is important to avoid and minimize impacts on regionally significant populations through the implementation of conservation measures.

Two (2) plants (California groundsel and white rabbit-tobacco), with the potential to occur in the Planning Area are considered to be fairly threatened in California but more common elsewhere (CNPS Rank 2B.2). Given the importance of conserving biological diversity within the Planning Area and surrounding region, mitigation would be required to reduce significant and unavoidable impacts of the Proposed Project associated with the loss of regionally significant populations.

The remaining 10 special status plants (Catalina mariposa lily, Plummer's mariposa lily, small-flowered morning glory, Southern California black walnut, Robinson's pepper grass, small-flowered microtis, Hubby's phacelia, Cooper's rein-orchid, fish's milkwort and Engelman oak) reported or having the potential to occur in the Planning Area are considered to be of limited distribution or infrequent throughout a broader area of California and are moderately to not very threatened in California (CNPS Rank 4.2 and 4.3). As such, while their status should be monitored, any losses of these species are not expected to be potentially significant.

*Special-Status Wildlife*

Among the animal species recorded or having the potential to occur on-site, four (4) are federally and/or state listed (tricolored blackbird, willow flycatcher and least Bell's vireo – both federally and state listed as endangered; and coastal California gnatcatcher – federally listed as threatened). In addition, there are three species of invertebrates considered to be critically imperiled in the state (Crotch bumblebee, Southern California shoulder-band snail, and Trask's shoulder-band snail). Although these three species have not been provided special status by federal or state agencies, they should be considered under CEQA due to their contribution to biodiversity. Due to the high degree of sensitivity and threat to these species, any loss of individuals and populations as the result of specific projects would be considered significant.

Three (3) species recorded in the Planning Area are fully protected (golden eagle, white-tailed kite and ringtail cat). Fully protected is a legal designation administered by CDFW, intended to conserve wildlife species that risk extinction within the state of California. Taking or possessing fully protected species is unlawful although take may be authorized for necessary scientific research.

In addition, the golden eagle is protected under the federal Bald and Golden Eagle Protection Act. The purpose of the Bald and Golden Eagle Protection act is to prohibit agitation of the bald and golden eagle including: 1) abusing an eagle; 2) interfering with its substantial lifestyle, including shelter, breeding, feeding; or 3) nest abandonment. Any project that interferes with nesting fully protected species would result in a significant impact. Planned activities that would affect golden eagle habitat are authorized if the habitat is more than one-half mile from an active or historically active nesting site. If the habitat is less than one-half mile from an active or historically active nesting site, planned activities should be sited in such a way that the activity has minimal potential to cause abandonment of the nesting site. Tonner Canyon has been rated as a conservation priority for the golden eagle and the Puente-Chino Hills Wildlife Corridor serves as a wildlife corridor for this species (Spencer, 2005). Any take of these species without a permit from CDFW would result in a significant adverse impact.

Twenty-eight wildlife species in Table 3.3-4 are listed by CDFW as Species of Special Concern (SSC) which are species, subspecies, or distinct populations of an animal native to California that currently satisfies one or more of the following (not necessarily mutually exclusive) criteria:

- Is extirpated from the State or, in the case of birds, is extirpated in its primary season or breeding role;
- Is listed as Federally-, but not State-, threatened or endangered; meets the State definition of threatened or endangered but has not formally been listed;
- Is experiencing, or formerly experienced, serious (noncyclical) population declines or range retractions (not reversed) that, if continued or resumed, could qualify it for State threatened or endangered status;
- Has naturally small populations exhibiting high susceptibility to risk from any factor(s) that if realized, could lead to declines that would qualify it for State threatened or endangered status.

Two (2) of these species are amphibians (Coast Range newt and western spadefoot); nine (9) are reptiles (western pond turtle, coast horned lizard, coastal whiptail; Southern California legless lizard, San Diego mountain kingsnake, California glossy snake, coast patch-nosed snake, two-striped garter snake and red diamond rattlesnake); 10 are birds (northern harrier, burrowing owl, long-eared owl, short-eared owl, loggerhead shrike, cactus wren, yellow-breasted chat, yellow warbler, Bell's sage sparrow and grasshopper sparrow; and eight are mammals (pallid bat, western mastiff bat, western red bat, western yellow bat, northwestern San Diego pocket mouse, San Diego desert woodrat, San Diego black-tailed jackrabbit, and American badger).

Finally, there are seven (7) bird species that, according to the SBSWG, are sensitive in Los Angeles County and warrant mitigation for their habitat losses (greater roadrunner, ferruginous hawk, prairie falcon, horned lark, mountain bluebird, vesper sparrow, and western meadowlark). Given the importance of conserving biological diversity within the Planning Area and surrounding region, avoidance and minimization of impacts on these species should include the conservation of their habitats.

By the nature of their status, the conservation of habitat for the species listed above is important in preserving the biological diversity and ecological stability in the region. Implementation of the proposed General Plan policies, discussed below, would somewhat minimize the effects of development under the Proposed Project on the relative status of these species in the Planning Area. However, mitigation is required to ensure impacts would be reduced to a level that is less than significant.

In the case of state and/or federal listed endangered or threatened wildlife species, future projects shall comply with CESA and/or FESA through their regulatory permitting processes. The specific compensatory measures required to take a listed species or to eliminate its habitat will be determined at the time of permitting. The measures will likely include habitat conservation, payment of in lieu fees, and limitations to the extent and timing of construction.

*Nesting Birds*

The Planning Area supports trees, shrubs, and ground cover that could be used by breeding raptors and songbirds. Disturbing or destroying active nests is a violation of the MBTA and nests and eggs are protected by Fish and Game Code, Section 3503. The removal of active nests or harassment of a breeding bird protected under these regulations is considered a potentially significant impact. Implementation of proposed General Plan policies, including the requirement of a biotic resources evaluation prior to approval of discretionary development projects located adjacent to a significant biological resource area, would somewhat minimize impacts on nesting birds but mitigation is required to reduce this impact to a level that is less than significant.

## OPERATIONS

### *Special-Status Plants*

Potential adverse impacts on special-status plants associated with development anticipated by the proposed General Plan may include introducing non-native or invasive species into undeveloped areas that support special-status species and could result in invasive species outcompeting these natives for water, nutrients, and sunlight. Implementation of proposed General Plan policies designed to protect special-status species, preserve mature native trees, and encourage planting of native species in new development would somewhat reduce impacts associated with invasive species associated with development under the Proposed Project. However, given that the proposed General Plan does not include any policies that would explicitly prohibit removal of special-status plant species or introduction of invasive species, further mitigation is required to reduce this impact to a level that is less than significant.

### *Wildlife and Nesting Birds*

Potential adverse indirect impacts on special-status wildlife associated with development anticipated by the proposed General Plan include: (1) increased vehicular traffic and a corresponding increase in noise and threat of road kill by traffic; (2) an increase in human presence in preserved open space areas; (3) an increase in predatory and feral pets; (4) an increase in litter, pollutants, dust, oil, and other human debris; and (5) an increase in nighttime light trespass onto preserved open space. Mitigation is required to reduce these impacts to a level that is less than significant.

### *Proposed General Plan Policies that Address the Impact*

<u>Resource Conservation</u>

RC-G-4. Maintain, protect, and preserve biologically significant areas, including Significant Ecological Area (SEA) 15, riparian areas, oak and walnut woodlands, and other areas of natural significance, providing only such recreational and cultural opportunities as can be designed in a way that sustains, repairs or restores ecosystems rather than detracts from them.

RC-G-5. Protect rare, threatened, endangered, and other special-status plant and animal communities.

RC-G-6. Promote the use of native and drought-tolerant vegetation in landscaping where practical.

RC-P-9. Require, as part of the environmental review process prior to approval of discretionary development projects involving parcels within, adjacent to, or surrounding a significant biological resource area, a biotic resources evaluation of the site by a qualified biologist, requiring that time-specific issues such as the seasonal cycle of plants and migration of wildlife are evaluated. Such evaluation shall analyze the existing and potential natural resources of given site following at least one site visit as well as the potential for significant adverse impacts on

biological resources, and shall identify measures to avoid, minimize, or mitigate any impacts that would degrade its healthy function. In approving any permit based on the evaluation, the City shall require implementation of mitigation measures supported by the evaluation, or work with the applicant to modify the project if mitigation is determined not to be adequate to reduce the impacts to a non-significant level.

RC-P-10. Require new development to preserve mature native trees including oak and walnut, and trees of significant cultural or historical value such as sycamore and arroyo willow, etc., as set forth under the Diamond Bar Tree Preservation and Protection Ordinance. Review the ordinance periodically and update it as necessary to reflect current best practices.

RC-P-11. Require that all development, including roads and trails, proposed adjacent to riparian and other biologically sensitive habitats avoid significant impacts that would undermine the healthy natural functioning of those areas. Require that new development proposed in such locations be designed to:

a. Minimize to the greatest extent possible or eliminate impacts on environmentally sensitive areas;
b. Protect the visual seclusion of forage areas from road intrusion by providing vegetative buffering;
c. Provide wildlife movement linkages to water, food, shelter, and nesting sites;
d. Allow wildlife and migration access by use of tunnels or other practical means;
e. Provide vegetation that can be used by wildlife for cover along roadsides;
f. Avoid intrusion of night lighting into identified areas through properly designed lighting systems;
g. Avoid impacts to wetlands, natural springs and seeps and maintain access for wildlife or when natural water areas are removed or blocked provide a locally suitable and equal replacement; and
h. To the greatest extent possible, prevent street water runoff from flowing into waterways

RC-P-13. Utilize native and drought-tolerant plants in landscaping for public buildings and parks and encourage the use of native and drought-tolerant species on private property. Develop a list of recommended native, low-water-use, and drought-tolerant plant species, as well as a list of invasive species to avoid.

RC-P-14. Partner with local school districts, environmental groups and volunteers to offer environmental education programs.

RC-P-15. Support efforts to establish mitigation bank programs to restore habitat within Open Space-designated and deed-restricted lands.

RC-P-24. Protect and, where feasible, enhance or restore the City's waterways and drainages, preventing erosion along the banks, removing litter and debris, and promoting riparian vegetation and buffers.

*Mitigation Measures*

The Proposed Project could result in potentially significant impacts on special-status plant and wildlife species during both construction and use of specific projects, including plant and animal species included in Tables 3.3-3 and 3.3-4, as well as nesting birds protected under the MTBA and CDFG Code (3503). However, implementation of project-specific Mitigation Measures MM BIO-1A, 1B, 1C, 1D, 1E, 1F, 1G, 1H, 1I and 1k will minimize impacts so as to be less than significant. Mitigation Measures MM BIO-1A, 1B, 1C, 1D, 1E, 1F, 1G, 1H, 1I, and 1K apply to future development under the Proposed Project in the following areas where special-status species have been identified: Planning Area 1 (Tres Hermanos Ranch), Planning Area 2, Planning Area 4 (under the South Pointe West Specific Plan), and the Golf Course.

**MM-BIO-1A** Preconstruction Surveys for Special-Status Plants: To mitigate impacts on special status plant species, the applicant shall implement the following measures:

- Prior to initiating disturbance activities, clearance surveys for special-status plant species shall be performed by a qualified biologist(s) within the boundaries of the future project disturbances. If any special-status plants are found on the Planning Area, a qualified biologist(s) with a CDFG Scientific Collection Permit shall prepare a plan to relocate these species to suitable habitats within surrounding public open space areas that would remain undisturbed. For those species that cannot be physically transplanted, the biologist(s) shall collect seeds from the plants.[6]

- To the extent feasible the preconstruction surveys shall be completed when species are in bloom, typically between May and June. Two species, the white rabbit-tobacco and San Bernardino aster, are perennial herbs that grow up to three feet in height and can be identified by their dried stalks and leaves following their blooming period.

**MM-BIO-1B** Special-Status Plant Planting Plan: Prior to any ground disturbance for projects that have the potential to cause direct or indirect impacts on special-status plants, the project applicants shall prepare a Special Status Plant Planting Plan for the species to be transplanted. At a minimum, the plan shall include a description of the existing conditions of the project and receiver site(s), transplanting and/or seed collection/off-site seeding or installation methods, a two-year monitoring program, any other necessary monitoring procedures, plant spacing, and maintenance requirements. The City shall also require proof that the plan preparer

[6] Lilies generally can be transplanted in bulb-form.

consulted with US Fish and Wildlife Service personnel or appropriate herbarium botanists in order to maximize transplanting success.[7]

**MM-BIO-1C** Listed Endangered and Threatened Plants: In addition to MM BIO-1A and -1B, the City shall require the project applicant to provide proof of the US Fish and Wildlife Service permitting the take of listed endangered and threatened plants. The FESA does not address listed plants on private property. However, if a federal action is required for a project (funding, Clean Water Act compliance, etc.), a permit from the USFWS to take a listed species is required.

**MM-BIO-1D** Environmental Awareness Program: In order to reduce indirect impacts on special-status plants, sensitive natural communities, preserved open space and wildlife corridors, the City shall implement the following measures:

- The City shall implement an Environmental Awareness Program on its web site intended to increase awareness to residents and city workers of the sensitive plants, wildlife and associated habitats that occur in the preserved open space areas. The intention of the program shall be to encourage active conservation efforts among the residents and city to help conserve the habitats in the preserved open space. The program shall address impacts associated with the introduction of invasive plant species as a result of new development. At a minimum, the Environmental Awareness Program shall include the following components:

- Informational kiosks shall be added or modified at entrance points to hiking and equestrian trails to inform city workers, residents and trail users on the sensitive flora and fauna that rely on the habitats found within the preserved open space. The intent of these kiosks is to bring awareness to the sensitive plants, wildlife and associated habitats which occur in the area.

- For informational purposes, the City shall provide future project applicants a brochure which includes a list of plant species to avoid in residential landscaping near natural areas to prevent the introduction of invasive plant species to the surrounding natural communities.

**MM-BIO-1E** Preconstruction Surveys for Special-Status Wildlife: Within one (1) week prior to initiating disturbance activities, clearance surveys for special-status animal species shall be performed by a qualified biologist(s) within the boundaries of the future project disturbances. If any special-status animals are found on the site, a qualified biologist(s) with a CDFG Scientific Collection Permit shall relocate these species to suitable habitats within surrounding open space areas that would remain undisturbed, unless the biologist determines that such relocation cannot reasonably be accomplished at which point CDFG will be consulted regarding whether relocation efforts should be terminated. Relocation methods (e.g., trap

[7] Such as CDFW in Ontario, the Rancho Santa Ana Botanical Gardens in Claremont, UC Riverside, or Cal Poly Pomona.

and release) and receiver sites shall be verified and approved by the CDFG prior to relocating any animals.

**MM-BIO-IF** Listed Endangered or Threatened Wildlife: Prior to approval of individual projects that have the potential to cause direct or indirect impacts on suitable habitat for federally or state listed endangered or threatened species, the City shall require a habitat evaluation to be completed by a qualified biologist well versed in the requirements of the associated species to be completed. If no suitable habitat for listed species is identified within 300 feet of construction or maintenance activities, no further measures would be required in association with the project. If suitable habitat for the species is identified within 300 feet of such activities, prior to construction, the City shall require that a survey be completed by a qualified biologist for the species in accordance with protocols established by the US Fish and Wildlife Service.[8] Table 3.3-5 provides a listing of endangered and threatened species by habitat type and potential for occurrence.

In the event a state or federal listed species is determined to occupy the proposed Planning Area or its immediate surroundings, the CDFW and/or USFWS shall be consulted, as required by CESA and/or FESA. In order to address and acknowledge the potential for listed species to occur within the Planning Area or be impacted by future development projects, this assessment acknowledges future actions by state and federal resource agencies in addition to the analyses necessary and required under CEQA. Compensation is likely to include one or more of the following on- or off-site measures: dedication/preservation of suitable habitat for the species; habitat enhancement/creation; and provisions for long-term habitat management.

**Table 3.3-5 Focused Habitat Evaluations and Surveys**

| *Suitable Habitat Type* | *Species to Be Surveyed* | *Potential for Occurrence* |
|---|---|---|
| Native Oak and Walnut Woodlands | Braunton's milk vetch | Moderate |
| Native Shrublands and Scrub | Coastal California gnatcatcher | High |
| | Braunton's milk vetch | Moderate |
| Riparian Woodlands and Scrub | Willow flycatcher | Low |
| | Least Bell's vireo | Moderate |
| | Tri-colored blackbird | Moderate |

*Source: Environmental Science Associates, 2019.*

[8] In some cases, the USFWS requires the surveyor to hold a Section 10(a) permit in order to complete the survey. Non-compliance with the permit requirements will cause the agencies to reject the survey findings and possibly result in a "take" of the species being surveyed.

**MM-BIO-1G** Nesting Bird Surveys: All vegetation clearing for construction and fuel modification shall occur outside of the breeding bird season, if feasible, to ensure that no active nests would be disturbed unless clearing and/or grading activities cannot be avoided during that time period.[9]

If clearing and/or grading activities cannot be avoided during the breeding season, all suitable habitats shall be thoroughly surveyed for the presence of nesting birds by a qualified biologist prior to removal. Suitable nesting habitat on the Planning Area includes grassland, scrub, chaparral, and woodland communities. If any active nests are detected, the area shall be flagged, along with a 300-foot buffer for song birds and a 500-foot buffer for raptorial birds (or as otherwise appropriate buffer as determined by the surveying biologist), and shall be avoided until the nesting cycle is complete or it is determined by the surveying biologist that the nest is no longer active.

**MM-BIO-1H** Protection of Eagle Nests: No development or project activities shall be permitted within one-half mile of a historically active or active golden eagle nest unless the planned activities are sited in such a way that the activity has minimal potential to cause abandonment of the nesting site, as determined by a qualified biologist.[10] In addition, the eagle nest (if active) shall be monitored by a biologist who is highly familiar with the signs of eagle distress during the project development activities. The monitoring shall continue until the monitoring biologist is confident the nest will not be disturbed. The monitoring biologist shall have the authority to stop project activities as needed.

**MM-BIO-1I** Use of Buffers Near Active Bat Roosts: During the November 1 to March 31 hibernation season, construction activities shall not be conducted within 100 feet of woodland habitat that provides suitable bat roosting habitat. Bat presence is difficult to detect using emergence surveys during this period due to decreased flight and foraging behavior. If a qualified biologist who is highly familiar with bat biology determines that woodland areas do not provide suitable hibernating conditions for bats and they are unlikely to be present in the area, work may commence as planned.

**MM BIO-1J** Bat Maternity Roosting Season: Night-time evening emergence surveys and/or internal searches within large tree cavities shall be conducted by a qualified biologist who is highly familiar with bat biology during the maternity season (April 1 to August 31) to determine presence/absence of bat maternity roosts near wooded project boundaries. All active roosts identified during surveys shall be protected by a buffer to be determined by a qualified bat biologist. The buffer will

[9] The nesting bird season is February 15 to August 31.

[10] Generally, information regarding the location of raptorial bird nests is kept highly confidential. As such it is recommended that representatives of CDFW, USFWS and/or the Chino Hills State Park be notified of any proposed projects in the SOI or Tres Hermanos portions of the Planning Area. In consultation with agency representatives, it can be determined if the project is within one-half mile of the eagle nest without the location being specifically identified.

be determined by the type of bat observed, topography, slope, aspect, surrounding vegetation, sensitivity of roost, type of potential disturbance, etc. Each exclusion zone would remain in place until the end of the maternity roosting season. If no active roosts are identified, then work may commence as planned. Survey results are valid for 30 days from the survey date. Should work commence later than 30 days from the survey date, surveys should be repeated.

**MM BIO-1K** Bat Roost Replacement: All special-status bat roosts that are destroyed by the project must be documented and shall be replaced at a 1:1 ratio on- or off-site with a roost suitable for the displaced species (e.g., bat houses for colonial roosters). The design of such replacement habitat shall be coordinated with CDFG. The new roost shall be in place prior to the time that the bats are expected to use the roost as determined by a qualified biologist who is highly familiar with bat biology, and shall be monitored periodically for five (5) years to ensure proper roosting habitat characteristics (e.g., suitable temperature and no leaks). The roost shall be modified as necessary to provide a suitable roosting environment for the target bat species.

### Impact 3.3-2 Implementation of the Proposed Project would not have an adverse effect on a riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or US Fish and Wildlife Service. (*Less than Significant with Mitigation*)

## CONSTRUCTION

A quantification of potential impacts on riparian or other sensitive natural communities cannot be made until the design and nature of specific projects is known. As a general rule, however, the removal and/or fragmentation of sensitive natural communities identified by the CDFW and listed in Table 3.3-2 would be considered to be potentially significant due to their decline in the region and/or their suitability as habitat for sensitive species. In particular, the loss and/or fragmentation of riparian alliances and most native shrubland and scrub alliances could adversely affect rare, endangered or threatened plant and wildlife species. It should also be noted that areas of specific project disturbance include fuel modification zones in this regard.

USFWS designated critical habitat for listed plant or wildlife species does not occur within the Planning Area. However, the SOI has been identified as a Significant Ecological Area under the Los Angeles County General Plan and is subject to the Los Angeles County Oak Woodlands Conservation Management Plan. Under the proposed General Plan, the SOI is designated as a Significant Ecological Area and any development in this area would be subject to provisions of the Los Angeles County SEA Ordinance regarding preservation of biological resources. The proposed General Plan does not propose any development within the SOI and includes policies that seek to protect existing oak woodlands. The City's tree preservation ordinance is also intended to protect individual native trees within city limits. While the City's tree preservation ordinance and the proposed General Plan policies represent an affirmative action, it does not necessarily guarantee

that functioning oak woodlands will be conserved. Therefore, impacts to oak woodlands and other native woodlands could be significant and unavoidable.

## OPERATIONS

On-going human activities at specific Planning Areas has the potential to adversely affect abutting sensitive natural communities in several ways. Invasive non-native plants used in landscaping can invade adjacent native vegetation; periodic fuel modification activities can prevent habitats from reaching their complete structure and function; and light and noise trespass into native habitats can deter occupation by various wildlife species.

### *Proposed General Plan Policies that Address the Impact*

Policies RC-G-4, RC-G-5, RC-P-9, RC-P-10, RC-P-11, and RC-P-24 as discussed under Impact 3.3-1, in addition to the following:

<u>Resource Conservation</u>

RC-P-12. Support and cooperate with the efforts of other local, State, and federal agencies, groups, and private entities—including Los Angeles County, neighboring jurisdictions, and conservation groups—to preserve environmentally sensitive hillsides, canyon areas, wildlife corridors and riparian areas within Diamond Bar's SOI, including the Puente - Chino Hills Wildlife Corridor, Tres Hermanos Ranch, Tonner Canyon, and SEA 15 to provide regional connectivity, and to sustain the ecological function of natural habitats and biological resources.

a. Discourage development in areas with identified significant biological resources, such as SEAs.

b. Discourage development in riparian habitats, streambeds, wetlands, coastal sage scrub, cactus scrub, and native woodlands in order to maintain and support their preservation in a natural state, unaltered by grading, fill, or diversion activities.

c. Preserve and restore oak woodlands and other native woodlands that are conserved in perpetuity with a goal of no net loss of existing woodlands.

### *Mitigation Measures*

Implementation of the Proposed Project could result in significant impacts on sensitive natural communities, including oak and walnut woodlands, riparian habitats, and sage scrub habitats. However, implementation of Mitigation Measure MM-BIO-2, MM-BIO-3, MM-BIO-4, and MM-BIO-5 would minimize impacts so as to be less than significant. Mitigation Measures MM-BIO-2, MM-BIO-3, MM-BIO-4, and MM-BIO-5 apply to future development under the Proposed Project in the following areas where special-status species have been identified: Planning Area 1 (Tres Hermanos Ranch), Planning Area 2, Planning Area 4 (under the South Pointe West Specific Plan), and the Golf Course.

**MM BIO-2** Sensitive Natural Communities: To mitigate impacts on sensitive shrubland and scrub natural communities, project applicants shall implement the following mitigation measures prior to any ground disturbance:

- If avoidance cannot be reasonably accomplished, impacts on any shrubland, scrub or woodland alliance indicated as sensitive in Table 3.3-2 shall be mitigated through on- or off-site restoration/enhancement. For off-site restoration/enhancement, the applicant shall acquire mitigation land of similar habitat at a ratio of at least 1:1. On-site restoration/enhancement shall also be completed at a ratio of at least 1:1.

- For projects that have the potential to result in direct or indirect impacts on sensitive natural communities, a habitat restoration plan shall be prepared prior to any ground disturbance. The Plan shall include adaptive management practices as specified by the Department of the Interior to achieve the specified ratio for restoration/enhancement. At a minimum, the Plan shall include a description of the existing conditions of the receiver site(s), goals and timeline, installation methods, monitoring procedures, plant spacing, adaptive management strategies, and maintenance requirements to ensure the sensitive communities referred to above re-established successfully at the ratios set forth above.

**MM BIO-3** Jurisdictional Waters: To mitigate for impacts on jurisdictional waters, the applicant shall implement the following measures in consultation with the regulating agencies (USACE, CDFW, and RWQCB, where applicable) over the course of the project:

- The applicant shall provide on- and off-site replacement and/or restoration/enhancement of USACE, RWQCB and CDFG jurisdictional waters and wetlands at a ratio no less than 1.5:1 and/or include the purchase of mitigation credits at an agency-approved off-site mitigation bank.

- If replacement and/or restoration/enhancement would occur, a restoration plan shall be prepared that describes the location of restoration and provides for replanting and monitoring for a three-year period following construction.

**MM-BIO-4** Oak Woodlands: In the event a future project would result in the loss of an oak woodland, the project shall be subject to the mitigation requirements set forth in the Los Angeles County Oak Woodland Conservation Management Plan Guide.[11]

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[11] The Los Angeles County Oak Woodlands Conservation Management Plan Guide, dated March 18, 2014 was prepared to implement the county's oak woodlands conservation management plan. The plan itself was adopted in response to the Governor's approval of the California Oak Woodlands Conservation Act on October 7, 2001. The plan was required in order to qualify for funding to preserve oak woodlands through the State of California's Oak Woodlands Conservation Fund (Fund).

If a future project cannot be redesigned to avoid impacts on oak woodland, then one of the following measures shall be implemented:[12]

- Acquire oak woodland habitat that is comparable to the habitat that was impacted at a ratio of 1:1.
- Restore degraded oak woodlands
    - Off-site restoration should be prioritized over on-site restoration and where feasible, should be located nearby the impacted property, preferably within the same watershed or sub-drainage as deemed appropriate by a qualified biologist, or within the same planning area as the impacted property. Off-site restoration may include any of the following: acquiring off-site fee title for oak woodland habitat; replacement planting; and/or restoring moderately or severely degraded oak woodlands (more specifically, removing exotics and restoring appropriate native plant diversity).
    - On-site restoration of a ratio of at least 1:1 should be utilized when circumstances at the site allow for long-term sustainability of the replacement plantings, the potential to expand/connect to adjacent oak woodlands, and/or the improvement of degraded oak woodlands. If possible, on-site restoration areas should be located adjacent to preserved natural space. The project applicant shall replace/restore lost canopy area. More specifically, the project applicant shall provide mitigation trees of the same Oak species. All replacement trees should be planted on native undisturbed soil and should be the same species of oak (Quercus sp.) as the removed tree with appropriate associated native vegetation in the understory. The location of the replacement tree should be in the vicinity of other oak trees of the same species. If replacement trees cannot be planted on native undisturbed soil or are not in the vicinity of the same species of oak (Quercus sp.) as the removed tree, the city may require implementation of additional measures as listed in MM-BIO-4 to ensure that trees thrive.

Mitigation areas or land should be at a minimum of two (2) to one (1) canopy cover area for the amount removed. This is the expected canopy extent of mature trees.[13] All mitigation areas or land should be placed in a conservation easement within six

[12] For purposes of implementing this mitigation measure the definition of an oak woodland follows Los Angeles County guidelines. According to those guidelines, an oak woodland exists whenever two or more oak trees with diameter breast heights of at least five inches have overlapping areas of influence when the tree radii are increased 3.2 times. That is, the two or more trees may not actually have overlapping, canopies but do function as a woodland due to their proximity to one another.

[13] A more convenient way to think of it might be to base it on stem density, then apply that density over twice the acreage of the impacted area.

months of a project's completion. If a conservation easement is not possible, the land shall be protected in perpetuity by other means deemed acceptable by the City. Mitigation land may be designated public open space by the City if deemed appropriate per the description of Open Space found in Chapter 2: Land Use of the proposed General Plan.

Project mitigation shall be monitored and reported on over a seven-year period and shall incorporate an iterative process of annual monitoring and evaluation of progress and allow for adjustments to the program, as necessary, to achieve desired outcomes and meet success criteria. Annual reports discussing the implementation, monitoring, and management of the mitigation project shall be submitted to the City and should contain the following components: description of the project impact and mitigation site; specific objectives/success criteria, evaluated based on approved survival rates and percent cover of planted native species; control of invasive plant and animal species within the mitigation site; monitoring and maintenance activities conducted since the previous report; and any contingency measures implemented since the previous report. Success criteria should be based on a reference site supporting the desired oak species and understory that the mitigation site is designed to achieve.

Once the mitigation project has been completed, the applicant shall submit a final report to the City. The report shall discuss the implementation, monitoring and management of the mitigation project over the seven-year period, and indicates whether the mitigation project has, in part, or in whole, been successful based on established success criteria. The project shall be extended if success criteria have not been met at the end of the seven-year period to the satisfaction of the City.

**MM-BIO-5** Walnut Woodlands: In the event a future project would result in the loss of a walnut woodland, then one of the following measures shall be implemented:

- Acquire walnut woodland habitat that is comparable to the habitat that was impacted at a ratio of 1:1.
- Restore degraded walnut woodlands
    - Off-site restoration should be prioritized over on-site restoration and where feasible, should be located nearby the impacted property, preferably within the same watershed or sub-drainage as deemed appropriate by a qualified biologist, or within the same planning area as the impacted property. Off-site restoration may include any of the following: acquiring off-site fee title for walnut woodland habitat; replacement planting; and/or restoring moderately or severely degraded walnut woodlands (more specifically, removing exotics and restoring appropriate native plant diversity).
    - On-site restoration of a ratio of at least 1:1 should be utilized when circumstances at the site allow for long-term sustainability of the

replacement plantings, the potential to expand/connect to adjacent walnut woodlands, and/or the improvement of degraded walnut woodlands. If possible, on-site restoration areas should be located adjacent to preserved natural space. The project applicant shall replace/restore lost canopy area. More specifically, the project applicant shall provide mitigation trees of the same species comprising the walnut woodland, including the constituent or co-dominant oak species. All replacement trees should be planted on native undisturbed soil and should be the same species of walnut (Juglans sp.) and oak (Quercus sp.) as the removed tree with appropriate associated native vegetation in the understory. The location of the replacement tree should be in the vicinity of other trees of the same species. If replacement trees cannot be planted on native undisturbed soil or are not in the vicinity of the same species as the removed tree, the city may require implementation of additional measures as listed in MM-BIO-5 to ensure that trees thrive.

Mitigation areas or land should be at a minimum of two (2) to one (1) canopy cover area for the amount removed. This is the expected canopy extent of mature trees.[14] All mitigation areas or land should be placed in a conservation easement within six months of a project's completion. If a conservation easement is not possible, the land shall be protected in perpetuity by other means deemed acceptable by the City. Mitigation land may be designated public open space by the City if deemed appropriate per the description of Open Space found in Chapter 2: Land Use of the proposed General Plan.

Project mitigation shall be monitored and reported on over a seven-year period and shall incorporate an iterative process of annual monitoring and evaluation of progress and allow for adjustments to the program, as necessary, to achieve desired outcomes and meet success criteria. Annual reports discussing the implementation, monitoring, and management of the mitigation project shall be submitted to the City and should contain the following components: description of the project impact and mitigation site; specific objectives/success criteria, evaluated based on approved survival rates and percent cover of planted native species; control of invasive plant and animal species within the mitigation site; monitoring and maintenance activities conducted since the previous report; and any contingency measures implemented since the previous report. Success criteria should be based on a reference site supporting the desired walnut woodland species and understory that the mitigation site is designed to achieve.

Once the mitigation project has been completed, the applicant shall submit a final report to the City. The report shall discuss the implementation, monitoring and management of the mitigation project over the seven-year period, and indicates whether the mitigation project has, in part, or in whole, been successful based on

[14] A more convenient way to think of it might be to base it on stem density, then apply that density over twice the acreage of the impacted area.

established success criteria. The project shall be extended if success criteria have not been met at the end of the seven-year period to the satisfaction of the City.

**Impact 3.3-3 Implementation of the Proposed Project would not have an adverse effect on State or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means. (*Less than Significant with Mitigation*)**

## CONSTRUCTION

A quantification of potential impacts on federally protected wetlands cannot be made until site-specific jurisdictional delineations are completed and the design and nature of specific projects anticipated by the Proposed Project is known. In particular, there appears to be an extensive wetland area extending upstream from Arnold Reservoir and north of Grand Avenue in the Tres Hermanos portion of the Planning Area. It is also possible that wetlands occur within areas of level topography. The bed and banks and associated wetland vegetation along these creeks and their tributaries are also regulated by CDFW. Impacts on state and federal jurisdictional features are considered potentially significant.

## OPERATIONS

Based on the General Plan Policies related to Land Use, Open Space, Water Resources and Resource Conservation, it is anticipated that water leaving specific Planning Areas would be similar to existing conditions, and no significant effects on the downstream hydrology and habitat within Tonner and Brea creeks are expected to occur. Although General Plan Policies address and discourage it, the proposed project could result in impacts on jurisdictional streambeds and riparian habitats.

### *Proposed General Plan Policies that Address the Impact*

Policies RC-G-4, RC-P-11, RC-P-12, and RC-P-24 as discussed under Impacts 3.3-1 and 3.3-2, in addition to the following:

#### Land Use & Economic Development

LU-P-2. Allow clustering or transferring of all or part of the development potential of a site to a portion of the site to protect significant environmental resources such as vegetated habitats, sensitive species, wildlife movement corridors, water features, and geological features within proposed developments as open space if the developer takes action to preserve the open space in perpetuity.

*Preservation can occur through methods including, but not limited to, dedication to the City or a conservation entity such as a conservancy, mitigation bank, or trust, or through conservation easements, deed restrictions, or other means.*

LU-P-56. Ensure that development on privately-owned, residentially designated land in hillside areas is compatible with surrounding natural areas by requiring that development:

a. Minimizes—as articulated by the landform grading criteria of the Hillside Management Ordinance—excavation, grading, and earthwork to retain natural vegetation and topography;
b. Preserves existing vistas of significant hillside features such as ridgelines, particularly from public places;
c. Does not create unsafe conditions;
d. Incorporates and is sensitive to natural contours and land forms in its site design, including hydrological features;
e. Preserves natural watersheds, including existing vegetation within undeveloped hillside areas to the maximum extent feasible, including mature trees and native plant materials;
f. Permits fuel modification as part of the Fire District's approved fuel modification program;
g. Utilizes planting palettes consisting of drought tolerant, fire resistant, plants with colors similar to those of native materials in the surrounding area; and
h. Groups plants within swale areas to more closely reflect natural conditions within landform graded slopes.

Resource Conservation

RC-G-7. Protect waterways—including creeks, riverines, artesian springs, seeps, and wetlands—and watersheds in Diamond Bar from pollution and degradation as a result of urban activities.

RC-G-9. Conserve natural open spaces, biological resources, and vegetation to promote groundwater recharge.

RC-P-25. Control and improve the quality of stormwater entering local water bodies by requiring new development to incorporate best management practices (BMPs), and Low Impact Development (LID) strategies that support on-site retention, detention, and/or treatment of stormwater through means such as infiltration, evapotranspiration, biofiltration, and rainfall harvest and use.

RC-P-26. Require the implementation of a stormwater pollution prevention plan (SWPPP), and inspection by a Construction General Permit Qualified SWPPP Practitioner (QSP), during construction and post construction to limit land disturbance activities such as clearing and grading and cut-and-fill; avoid steep slopes, unstable areas, and erosive soils; and minimize disturbance of natural vegetation and other physical or biological features important to preventing erosion or sedimentation.

*Mitigation Measures*

If and when avoidance of drainage features is not feasible, the City shall implement Mitigation Measures MM-BIO-2 and MM-BIO-3 (see description under Impact 3.3-2), which require project applicants to adopt compensatory measures in consultation with and as required by permitting regulating agencies (USACE, CDFG, and RWQCB). The specific compensatory measures required will be determined at the time of permitting. However, MM-BIO-2 and MM-BIO-3 require one of more of the following: habitat conservation; payment of in lieu fees to restoration/conservation funds; implementation of on- and off-site replacement and/or restoration/enhancement; and preparation of a restoration plan. Under the purview of the permitting agencies, these mitigation measures would reduce impacts on federally- and state-protected wetlands to a less than significant level.

**Impact 3.3-4 Implementation of the Proposed Project would not interfere with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites. (*Less than Significant with Mitigation*)**

## CONSTRUCTION

The Project Area includes a portion of the only fully permeable habitat linkage between the Chino Hills to the east and the Puente Hills to the west. The ecological value of this linkage is discussed above as it is critical to maintaining biological diversity in the Puente Hills ecosystem. Accordingly, General Plan Policies RC-1-9 and RC-1-16 address the importance of maintaining this corridor as well as local corridors.

Currently, the width of this linkage is approximately 6,400 feet (1.2 miles) between development in the Country and the Olinda Alpha Landfill. Past studies suggest that, although it is difficult to specify a minimum width for a corridor since there are a variety of factors that influence a corridor's success (e.g., location, cover, lighting, roads, frequency of use, disturbance), for corridors that cover a span of approximately 0.5 miles or less, corridor width should be at least 300 feet wide provided that other conditions for the corridor are favorable (e.g., good location, sufficient woody cover, no lighting, few disturbances).[15, 16] If conditions are not favorable, the width should be increased as corridor length increases. Whereas, the existing corridor width is well above the 300-foot minimum suggested by past studies, it can be argued that 300 feet is insufficient in this case. The undercrossing of Brea Creek and State Route 57 is approximately 300 feet, including paved road surfaces. This width, in itself, is a less that fully permeable corridor given the noise of traffic on the above freeway. As a consequence, live-in corridor habitats should be available on both sides of the narrowed corridor to increase the potential numbers of dispersing wildlife.

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[15] Beier, P. and R.H. Barrett. 1993. The cougar in the Santa Ana Mountain Range, California. Final report. Orange County Cooperative Mountain Lion Study, Department of Forestry and Resource Management, University of California, Berkeley, USA.

[16] Beier, P.1993. Determining minimum habitat areas and habitat corridors for cougars. Conservation Biology 7:94–108.

A significant narrowing of the corridor in the city's SOI would seriously affect the use of the undercrossing in an adverse way. It is also important to include Tonner Creek in the corridor for cover and water during movement. In an effort to minimize edge effects on the wildlife corridor, any proposed project in the SOI should avoid the substantial loss of corridor habitat and provide for adequate buffering from light and noise trespass. Otherwise, a potentially significant impact could result.

## OPERATIONS

The ongoing removal of vegetation from fuel modification thinning practices should also be considered. Such activities could reduce vegetation cover to a point where wildlife would not use the area for passage, foraging and shelter.

Other indirect impacts of future projects anticipated by the proposed General Plan, such as lighting, roads and other disturbances, may collectively deter wildlife from using corridors in the Planning Area. Indirect impacts include an increase in the ambient lighting within the area due to higher nighttime light levels from the adjacent roads and development. As the natural habitats within the area are further constrained, increased development can pose additional threats to the corridor.

### *Proposed General Plan Policies that Address the Impact*

Policies RC-P-1, RC-P-9, RC-P-12, and RC-P-24 as discussed under Impact 3.3-1.

### *Mitigation Measures*

The Proposed Project could result in direct and indirect impacts on wildlife movement corridors. However, consistency with proposed General Plan policies for Open Space and Resource Conservation, and implementation of Mitigation Measure MM-BIO-6 would reduce potential impacts to less than significant.

**MM-BIO-6** Wildlife Movement Corridor: In order to ensure the existing integrity of the Tonner Canyon movement corridor, the following land use design criteria shall be adhered to when reviewing future projects:

**Corridor Features**

- The corridor should be as wide as possible. The corridor width may vary with habitat type or target species, but a rule of thumb is about a minimum of 1,000 feet wide (but larger if possible).
- Maintain as much natural open space as possible next to any culverts and road undercrossings to encourage the use of these by wildlife.
- Maximize land uses adjacent to the corridor that reduce human impacts on the corridor.
- Avoid development or other impacts to project into the corridor to form impediments to movement and increase harmful edge effects.

- If development is to be permitted next to the corridor, put conservation easements on adjacent lots to prohibit structures nearest the corridor.
- Develop strict maximum brightness restrictions for development adjacent to the corridor to prevent light trespass into the corridor. Lights must be directed downward and inward toward the development.

**Culvert Design**

- Bridged undercrossings are preferable.
- If a bridge is not possible, use a 12-foot by 12-foot box culvert or bigger for larger animals.
- Install a small, one-foot diameter tube parallel to the large box culvert for small animals. The upstream end of the small tube should be a few inches higher than the bottom of the upstream end of the box culvert, so that it will stay dry and free of debris.
- The culvert bottoms should be as close as possible to any canyon bottom and not be perched up a fill slope.
- Use natural substrate on the bottom of the culvert, such as dirt with pebbles.
- On roads above the undercrossings and culverts, install speed bumps and wildlife crossing signs to slow the cars, and avoid street lighting to facilitate use of the crossing.
- Plant and maintain vegetative cover (shrubs and low cover) near the entrance-exits of the culverts, without visually or physically blocking the entries.
- Install appropriate fencing (at least six feet in height) to funnel animals towards the undercrossings and culverts.

**Vegetation Restoration**

- Require maintenance or restoration of native vegetation, and long-term management.
- Develop an adequate endowment program for restoration and management of the corridor.
- Plant native trees, shrubs, and other plants to provide food and cover, as well as nesting opportunities for birds.

**Management and Enforcement**

- If housing is to be permitted adjacent to the corridor, require the homeowners associations or each homeowner to maintain -- on their own property -- a mowed, 30-foot to 60-foot buffer along a flat or slightly sloped grade between the native vegetation in the corridor and each adjacent lot, for fire abatement.
- Avoid fencing in the corridor that would bottleneck the corridor.
- Unleashed domestic pets should not be allowed in the corridor.
- Educate each landowner adjacent to the corridor about the regulations (lighting, mowing the buffer, no trespass, do not place pet food outside, etc.) and develop a pamphlet and convene a community meeting. In appropriate locations, install educational signs about the corridor and the species that could potentially use the corridor.

### Impact 3.3-5 Implementation of the Proposed Project would not potentially conflict with local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance. (*No Impact*)

The Proposed Project would not introduce any potential conflicts with the City of Diamond Bar tree preservation ordinance, which applies to development within city limits, or the Los Angeles County Oak Tree Protection Ordinance, which applies to the SOI. Development under the Proposed Project would be subject to Diamond Bar's tree preservation ordinance, including adherence to its management and trimming procedures. The proposed General Plan does not propose any development within the SOI and designates this area as a Significant Ecological Area. Therefore, no significant impacts would occur.

*Mitigation Measures*

None required.

### Impact 3.3-6 Implementation of the Proposed Project would not conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or State habitat conservation plan. (*Less than Significant with Mitigation)*

## CONSTRUCTION

As discussed above in Impact 3.3-4, the project could have adverse effects on the integrity of the Puente-Chino Hills Wildlife Corridor conservation program being led by WCCA. Although WCCA's planning efforts are not a federal or state mandated conservation program, for the purpose of this assessment, they should be viewed as such in that the achievement of the Puente Hills–Chino Hills corridor will render regional ecological benefits.

## OPERATIONS

The reader is referred to the discussion in Impact 3.3-4. Implementation of the Proposed Project could conflict with applicable conservation plans and policies, specifically the Puente-Chino Hills Wildlife Corridor conservation program.

The proposed General Plan includes policies that protect and preserve biological resources within the City by designating specific resources and areas as protected, restricting activities and uses in protected areas, providing for the management of the resources on City lands, specifying impact avoidance and mitigation requirements for types of activities and by type of biological resource, and providing guidance for development and conservation decisions over the long-term. The policies anticipate the potential impacts on biological resources from the land uses and activities that will occur under the proposed General Plan and serve to avoid, reduce, and/or mitigate those impacts. However, implementation of mitigation measure MM-BIO-6 as discussed under Impact 3.3-4 would be required to ensure that impacts to the Puente-Chino Hills Wildlife Corridor conservation would be less than significant.

*Proposed General Plan Policies that Address the Impact*

Policies RC-P-1, RC-P-11, RC-P-12, and RC-G-4 as discussed under Impact 3.3-1.

<u>Resource Conservation</u>

RC-G-1. Create and maintain a balanced open space system that will preserve scenic beauty and community identity, protect important biological resources, provide open space for outdoor recreation and the enjoyment of nature, conserve natural resources, and ensure public health and safety.

RC-G-3. Preserve to the extent possible open space ridgelines, hilltops, and prominent slopes for aesthetic, biological and natural resource conservation, and safety purposes.

RC-P-3. A decision to rescind, terminate, abandon, remove, or modify an open space deed restriction, map restriction or Open Space land use designation must be preceded by both a finding by the City Council that the decision confers a significant benefit on the City and a favorable vote of the electorate at a regular or special election.

RC-P-4. Maintain an inventory of open lands which were set aside for open space uses as part of previous development approvals through the County and require verification as to the existence of any potential open space restrictions previously approved on a subject property prior to accepting development proposals.

RC-P-8. Work with other jurisdictions and conservation organizations to protect prominent ridges, slopes, and hilltops in and adjacent to the City and its Sphere of Influence.

> *Such features include, but are not limited to, areas identified by Los Angeles County as Significant Ecological Areas; Tonner Canyon; the hills within Tres Hermanos Ranch; and the hillsides along SR-57, between Diamond Bar and Brea.*

*Mitigation Measures*

The Proposed Project could result in direct and indirect impacts on wildlife movement corridors and therefore conflict with the efforts of the Puente-Chino Hills Wildlife Corridor conservation program. However, consistency with proposed General Plan policies for Open Space and Resource Conservation, and implementation of Mitigation Measure MM-BIO-6 as discussed under Impact 3.3-4 would reduce potential impacts to less than significant.

# 3.4 Cultural, Historic, and Tribal Cultural Resources

This section assesses potential environmental impacts on historic and cultural resources from future development anticipated by the Proposed Project, including those related to historic, archaeological, and tribal cultural resources, as well as human remains. The section describes the historical setting of the Planning Area, as well as the context for historic, archaeological, and tribal cultural resources in the Planning Area. It also includes a description of relevant federal, State, and local regulations and programs related to historic and cultural resources.

There were two comments on the Notice of Preparation (NOP) regarding topics covered in this section. Those comments included the following topics specific to Cultural, Historic, and Tribal Cultural Resources.

- Hills for Everyone requested that the EIR and General Plan address the protection of Native American artifacts, preservation of historic structures, and sites considered valuable to Native American Councils. This is addressed under Impacts 3.4-1 and 3.4-4.
- The Native American Heritage Commission (NAHC) provided a brief summary of portions of Senate Bill (SB) 18 and Assembly Bill (AB) 52 and discussed the NAHC Recommendations for Cultural Resources Assessments. NAHC also discussed requirements for determining the significance of and potential impacts to tribal cultural resources under AB 52 and the California Environmental Quality Act. A discussion of SB 18 and AB 52 is provided in the Environmental Setting. This EIR uses the discussed requirements to determine the significance of and potential impacts to tribal cultural resources under Impact 3.4-4.

## Environmental Setting

### PHYSICAL SETTING

#### Historic Setting

*Prehistoric Period*

The chronology of Southern California is typically divided into three general time periods: the Early Holocene (9,600 cal B.C. to 5,600 cal B.C.), the Middle Holocene (5,600 cal B.C. to 1,650 cal B.C.), and the Late Holocene (1,650 cal B.C. to cal A.D. 1769). This chronology is manifested in the

archaeological record by particular artifacts and burial practices that indicate specific technologies, economic systems, trade networks, and other aspects of culture.

While it is not certain when humans first came to California, their presence in Southern California by about 9,600 cal B.C. has been well documented. At Daisy Cave, on San Miguel Island, cultural remains have been radiocarbon dated to between 9,150 and 9,000 cal B.C. (Byrd and Raab, 2007). During the Early Holocene (9,600 cal B.C. to 5,600 cal B.C.), the climate of Southern California became warmer and more arid and the human populations, who were represented by small hunter gatherers until this point and resided mainly in coastal or inland desert areas, began exploiting a wider range of plant and animal resources (Byrd and Raab, 2007).

During the Late Holocene (1,650 cal B.C. to cal A.D. 1769), many aspects of Millingstone culture persisted, but a number of socioeconomic changes occurred (Erlandson, 1994; Wallace, 1955; Warren, 1968). The native populations of Southern California were becoming less mobile and populations began to gather in small sedentary villages with satellite resource-gathering camps. Increasing population necessitated the intensified use of existing terrestrial and marine resources (Erlandson, 1994). Evidence indicates that the overexploitation of larger, high-ranked food resources may have led to a shift in subsistence, towards a focus on acquiring greater amounts of smaller resources, such as shellfish and small-seeded plants (Byrd and Raab, 2007). Between about A.D. 800 and A.D. 1350, there was an episode of sustained drought, known as the Medieval Climatic Anomaly (Jones et al., 1999). While this climatic event did not appear to reduce the human population, it did lead to a change in subsistence strategies in order to deal with the substantial stress on resources.

Given the increasing sedentism and growing populations during the Late Holocene, territorial conscription and competition became acute. Primary settlements or village sites were typically established in areas with available freshwater, and where two or more ecological zones intersected. This strategic placement of living space provided a degree of security in that when subsistence resources associated with one ecological zone failed, the resources of another could be exploited. Villages typically claimed and carefully defended fixed territories that may have averaged 30-square miles in size encompassing a variety of ecological zones that could be exploited for subsistence resources (McCawley, 1996).

The Late Holocene marks a period in which specialization in labor emerged, trading networks became an increasingly important means by which both utilitarian and non-utilitarian materials were acquired, and travel routes were extended. Trade during this period reached its zenith as asphaltum (tar), seashells, and steatite were traded from Catalina Island (Pimu or Pimugna) and coastal Southern California to the Great Basin. Major technological changes appeared as well, particularly with the advent of the bow and arrow sometime after cal A.D. 500, which largely replaced the use of the dart and atlatl (Byrd and Raab, 2007).

### *Ethnographic Period*

The City is located within Gabrielino (Gabrieleño, Tongva, or *Kizh*) territory. According to Bean and Smith (1978), the Gabrielino, with the exception of the Chumash to the north, "were the wealthiest, most populous, and most powerful ethnic nationality in aboriginal Southern California." Named after the San Gabriel Mission, the Gabrielino occupied sections of Los Angeles,

Orange, and San Bernardino counties, and the islands of San Nicolas, Santa Catalina, and San Clemente. The Gabrielino subsisted on a variety of resources in several ecological zones. Acorns, sage, and yucca were gathered throughout the inland areas whereas shellfish, fish, as well as a variety of plants and animals were exploited within the marshes and along the coast. Deer and various kinds of small mammals were hunted on an opportunistic basis. Their material culture reflected the subsistence technology. Lithic tools such as arrow points and modified flakes were used to hunt and process animals. A variety of ground stone grinding implements, such as the mortar, pestle, mano, and metate, were used to process both plant and animal remains for food (Bean and Smith, 1978).

The settlement patterns of the Gabrielino, and other nearby groups such as the Juaneño and Luiseño, were similar and they often interacted through marriage, trade and warfare. The seasonal availability of water and floral and faunal resources dictated seasonal migration rounds with more permanent villages and base camps being occupied primarily during winter and spring months. In the summer months, the village populations divided into smaller units that occupied seasonal food procurement areas. The more permanent settlements tended to be near major waterways and food sources and various secular and sacred activities, such as food production and storage and tool manufacturing, were conducted at these areas (Bean and Smith, 1978).

### *Historic Context*

European contact with the Gabrielino that inhabited the City and surrounding region began in 1542 when Spanish explorer, Juan Rodriguez Cabrillo, arrived by sea during his navigation of the California coast. Sebastian Vizcaino arrived in 1602 during his expedition to explore and map the western coast that Cabrillo visited 60 years earlier. In 1769, another Spanish explorer, Gaspar de Portola, passed through Gabrielino territory and interacted with the local indigenous groups. In 1771, Mission San Gabriel was established and it slowly integrated Gabrielinos from the surrounding region and, quite possibly, the City. By 1833, the California missions had been secularized and most Gabrielinos became laborers for the gentry class (Bean and Smith, 1978).

In 1840, Governor Juan Alvarado deeded 4,340 acres (which included parts of Diamond Bar), to Jose de la Luz Linares. Linares established Rancho Los Nogales, or "Ranch of the Walnut Tree", with this Mexican land grant. He died in 1847 and his widow sold a choice portion of the ranch to Ricardo Vejar for $100 in merchandise, 100 calves, and the assumption of her late husband's debt. Vejar already owned the nearby Rancho San Jose (now the City of Pomona) so this acquisition made him the fifth wealthiest landowner in Los Angeles County, with 10,000 acres.

Starting in 1864, the land that encompassed the original Rancho Los Nogales changed ownership over the next several decades. One such owner was Louis Phillip, a young livestock owner who subdivided portions of the ranch for sale. Frederick E. Lewis II purchased 7,800 acres of the original ranch in 1918. Soon thereafter, Lewis formed the Diamond Bar Ranch and registered the "diamond over a bar" branding iron with the California Department of Agriculture. This would later become the symbol for which the City of Diamond Bar was named. Diamond Bar Ranch became a successful ranch primarily through hog breeding, although other activities such as horse breeding also took place on site (City of Diamond Bar and Diamond Bar Historical Society, 2014).

In 1943, Lewis sold the Ranch to the Bartholomae family, who continued to maintain it as a successful ranch by raising cattle on it for the next thirteen years. William A Bartholomae was president of the family oil company and in 1956 sought to make a more lucrative use of the land. At that time the Ranch looked much as it did in 1840, with grassy rolling hills supporting large herds of cattle, as well as abundant walnut tree orchards and scattered oak trees. The Christiana Oil Corporation and the Capital Oil Company, a subsidiary of the Transamerica Corporation, purchased 8,000 acres of Brea Canyon for $10,000,000, which encompassed the Ranch and the Ranch Headquarters Compound. Their plan was to develop a master-planned community that would eventually become home to more than 50,000 people.

A master plan was adopted in 1958 and work began immediately on utilities and infrastructure. The plan included a central business district, two shopping districts, and parks including an 18-hole golf course. Education was also considered a very important aspect of the plan (City of Diamond Bar and Diamond Bar Historical Society, 2014). The first model homes were built in 1960 in the north end of the City and the development continues to this day. After a lengthy process, the City incorporated in 1989 and became Los Angeles County's 86th city (City of Diamond Bar, 1995; 2016). The first General Plan was adopted in 1995 and the City has since grown to approximately 58,000 residents.

## Historic Resources

Records searches were conducted at the California Historical Resources Information System South Central Coastal Information Center (SCCIC) on September 19, 2016 and June 25, 2019 to identify previously recorded historic built environment resources within the Planning Area and a half-mile radius. In addition, the California Office of Historic Preservation's Historic Resources Inventory (HRI), California Historical Landmarks (CHL), California Points of Historical Interest (PHI), National Register of Historic Places (National Register) listings, and California Register of Historical Resources (California Register) listings were reviewed.

The results of the records search indicated that there are two previously recorded built environment resources within the City (Table 3.4-1). These two historic resources include: (1) segment of the Union/Southern Pacific Railroad (19-186112), which has been previously recommended eligible for listing in the National Register under Criteria A and B for its associations with the development of Los Angeles and the Big Four (Mark Hopkins, Collis P. Huntington, Leland Stanford, and Charles Crocker); and (2) an aboveground water tank/reservoir associated with the Walnut Valley Water District (19-189748) that was recommended ineligible for listing in the National Register under Criteria A-D.

A review of the HRI, CHL, PHI, National Register, and California Register indicated that there are no federally, state, or locally identified, designated, or listed historic resources within the Planning Area.

Although not on file at the SCCIC or listed in any historic register, the historic windmill that now stands at the entrance to the Diamond Bar Towne Center, a shopping center located at the northeast corner of Grand Avenue and Diamond Bar Boulevard, may be of local interest or significance. The windmill is reported to have been in operation as part of the Diamond Bar Ranch (now demolished) at a location approximately 600 feet from its current location (City of Diamond Bar and Diamond

Bar, 2014). The windmill is the only remaining vestige of the ranch. The windmill would not qualify for listing in the National Register or California Register since it has been moved from its original location and lacks context with its historical use (i.e., has lost its integrity). As such, it would not qualify as a historical resource under CEQA unless a lead agency determined it to be a historical resource pursuant to CEQA Guidelines Section 15064.5(a)(4).

**Table 3.4-1: Previously Recorded Buildings/Structures**

| *Primary No. (19-)* | *Resource Name* | *Address* | *Eligibility* |
|---|---|---|---|
| *186112 | Union/Southern Pacific Railroad | - | Recommended eligible for National Register under Criteria A and B |
| *189748 | Water tank/reservoir | - | Recommended not eligible for National Register under Criteria A-D |
| * denotes resources within City limits | | | |

*Source: California Historical Resources Information System, South Central Coastal Information Center, 2016.*

## Archaeological Resources

Records searches were conducted at the SCCIC on September 19, 2016 and June 25, 2019 to identify previously recorded archaeological resources within the Planning Area and a half-mile radius. The results of the records search indicated that a total of 110 cultural resource studies have been conducted within the one-half mile radius of the Planning Area. Of these 110 studies, 62 have been conducted within the Planning Area. A total of 15 archaeological resources have been recorded within a one-half mile radius of the Planning Area (**Table 3.4-2**). Of the 15 previously recorded archaeological resources, 11 are within the Planning Area (seven within the City limits and four within the Sphere of Influence). The seven resources within the City limits consist of five prehistoric archaeological sites (CA-LAN-852, CA-LAN-853 and CA-LAN-854, CA-LAN-1704, and 19-002805), one prehistoric isolate (19-101010), and one historic-period archaeological site (CA-LAN-3771H). The four resources within the sphere of influence consist of two historic-period isolates (19-100794 and 19-100795) and two prehistoric isolates (19-100793 and 19-101223). The locations of these resources remain confidential, pursuant to State and federal policies.

**Table 3.4-2: Previously Recorded Archaeological Resources**

| *Primary No.* | *Permanent Trinomial (CA- -)* | *Description* | *Date Recorded* | *Eligibility* |
|---|---|---|---|---|
| - | *LAN-852 | Prehistoric site: chipped stone | 1976 | Unknown |
| - | *LAN-853 | Prehistoric site: chipped stone | 1976 | Unknown |
| - | *LAN-854 | Prehistoric site: small chipped stone scatter | 1976 | Unknown |
| 30-001291 | ORA-1291H | Historic site: rock retaining wall with refuse | 1990 | Unknown |
| - | LAN-1414 | Prehistoric site: chipped and ground stone | 1988 | Unknown |
| - | *LAN-1704 | Prehistoric site: chipped and ground stone | 1980 | Unknown |
| - | *LAN-3771H | Historic site/landscape: eucalyptus trees and concrete debris associated with Diamond Bar Ranch Headquarters | 2008 | Not eligible |
| *19-002805 | | Prehistoric site: chipped and ground stone | 2000 | Unknown |
| 30-100478 | - | Historic isolate: can | 2008 | Not eligible |
| 30-100479 | - | Historic isolate: can | 2008 | Not eligible |
| **19-100793 | - | Prehistoric isolate: flake | 2010 | Not eligible |
| **19-100794 | - | Historic isolate: white earthenware flatware | 2010 | Not eligible |
| **19-100795 | - | Historic isolate: white earthenware flatware | 2010 | Not eligible |
| **19-101223 | - | Prehistoric isolate: ground stone fragment | 2000 | Not eligible |
| *19-101010 | - | Prehistoric isolate: ground stone fragment | 2013 | Not eligible |

* denotes resources within City limits
** denotes resources within sphere of influence

*Source: California Historical Resources Information System, South Central Coastal Information Center, 2016.*

A Sacred Lands File (SLF) search was commissioned through the NNAHC. The SLF records search results letter dated October 7, 2016 revealed that no known Native American resources from the NAHC database have been recorded within the City; however, this does not preclude their existence with the City.

## Tribal Cultural Resources

Pursuant to California Public Resources Code Section 21074, a tribal cultural resource is a site, feature, place, cultural landscape, sacred place, or object with cultural value to a tribe that is included or determined to be eligible for inclusion in the California Register, included in a local register of historical resources, or otherwise determined to be significant by the lead agency of an environmental review process. A search of the NAHC SLF was negative for the Planning Area. However, the long heritage of Native American tribes in the region suggests that the presence of tribal cultural resources is a possibility that future development will need to consider. The identification of tribal cultural resources can be supported by the NAHC's records, but can only be fully determined through consultation with local Native American tribes. Thus, maintaining good communication with local tribes will be critical to ensuring that resources are identified and respectfully preserved.

SB 18 requires that, prior to the adoption or amendment of a city's general plan, the city must consult with California Native American tribes for the purpose of preserving specified places, features, and objects located within the city's jurisdiction. AB 52 requires CEQA documents to examine tribal cultural resources in determination of project impacts and mitigation and establishes a consultation process with California Native American tribes to avoid damaging effects to tribal cultural resources. Since this is a program EIR for a general plan, the City is required to consult with local Native American tribal groups/representatives under both SB 18 and AB 52 (see "Regulatory Setting" below for more information).

Pursuant to SB 18, the City contacted the NAHC in May 2018 to obtain a list of California Native American tribes whom the City would engage for the purposes of avoiding, protecting, and/or mitigating impacts on tribal cultural resources through the General Plan update process. In May 2018 the NAHC provided the City with a list of seven California Native American tribes to contact in accordance with SB 18 – the Gabrieleno Band of Mission Indians – Kizh Nation, the Gabrieleno/Tongva San Gabriel Band of Mission Indians, the Gabrielino/Tongva Nation, the Gabrielino Tongva Indians of California Tribal Council, the Gabrielino-Tongva Tribe, the Pauma Band of Luiseno Indians – Pauma and Yuima Reservation, and the San Fernando Band of Mission Indians. The City sent a Notice of Preparation to the seven tribes previously listed on May 31, 2018 but no responses were received. The NAHC provided a comment letter, which is discussed above.

Pursuant to AB 52, the City contacted the NAHC again in April 2019 to request a search of its SLF and to obtain a list of California Native American tribes whom the City would engage for the purposes of avoiding, protecting, and/or mitigating impacts on tribal cultural resources. No California Native American tribes independently contacted the City to request notice under AB 52. In May 2019 the NAHC provided the City with a list of five California Native American tribes to contact in accordance with AB 52 – the Gabrielino Band of Mission Indians – Kizh Nation, the Gabrielino/Tongva San Gabriel Band of Mission Indians, the Gabrielino/Tongva Nation, the Gabrielino Tongva Indians of California Tribal Council, and the Gabrielino-Tongva Tribe. Of the five tribes contacted by the City, only one response, from the Gabrieleno Band of Mission Indians – Kizh Nation, was received. In its response letter, the tribe stated that tribal consultation would not be required given that there would not be any ground disturbance associated with the Proposed Project. Correspondence with the NAHC and tribal contacts is included in Appendix C of this EIR.

# REGULATORY SETTING

## Federal Regulations

### *National Historic Preservation Act*

The principal federal law addressing historic properties is the National Historic Preservation Act (NHPA), as amended (54 United States Code of Laws [USC] 300101 et seq.), and its implementing regulations (36 CFR Part 800). Section 106 requires a federal agency with jurisdiction over a proposed federal action (referred to as an "undertaking" under the NHPA) to take into account the effects of the undertaking on historic properties, and to provide the Advisory Council on Historic Preservation (ACHP) an opportunity to comment on the undertaking.

The term "historic properties" refers to "any prehistoric or historic district, site, building, structure, or object included in, or eligible for inclusion in, the National Register" (36 CFR Part 800.16(*l*)(1)). The implementing regulations (36 CFR Part 800) describe the process for identifying and evaluating historic properties, for assessing the potential adverse effects of federal undertakings on historic properties, and seeking to develop measures to avoid, minimize, or mitigate adverse effects. The Section 106 process does not require the preservation of historic properties; instead, it is a procedural requirement mandating that federal agencies take into account effects to historic properties from an undertaking prior to approval.

The steps of the Section 106 process are accomplished through consultation with the State Historic Preservation Officer (SHPO), federally-recognized Indian tribes, local governments, and other interested parties. The goal of consultation is to identify potentially affected historic properties, assess effects to such properties, and seek ways to avoid, minimize, or mitigate any adverse effects on such properties. The agency also must provide an opportunity for public involvement (36 CFR 800.1(a)). Consultation with Indian tribes regarding issues related to Section 106 and other authorities (such as NEPA and Executive Order No. 13007) must recognize the government-to-government relationship between the Federal government and Indian tribes, as set forth in Executive Order 13175, 65 FR 87249 (Nov. 9, 2000), and Presidential Memorandum of Nov. 5, 2009.

Section 106 (36 CFR 800.13(b)) also provides a process for the lead federal agency to review unanticipated discoveries, if historic properties are unexpectedly encountered after the Section 106 process has been completed and no agreement document is in place. If discovered, the lead federal agency shall make reasonable efforts to avoid, minimize, or mitigate adverse effects to such properties.

### *National Register of Historic Places*

The National Register of Historic Places (National Register) was established by the NHPA of 1966, as "an authoritative guide to be used by federal, State, and local governments, private groups and citizens to identify the Nation's historic resources and to indicate what properties should be considered for protection from destruction or impairment" (36 CFR 60.2). The National Register recognizes a broad range of cultural resources that are significant at the national, state, and local levels and can include districts, buildings, structures, objects, prehistoric archaeological sites,

historic-period archaeological sites, traditional cultural properties, and cultural landscapes. As noted above, a resource that is listed in or eligible for listing in the National Register is considered "historic property" under Section 106 of the NHPA.

To be eligible for listing in the National Register, a property must be significant in American history, architecture, archaeology, engineering, or culture. Properties of potential significance must meet one or more of the following four established criteria:

A. Are associated with events that have made a significant contribution to the broad patterns of our history;
B. Are associated with the lives of persons significant in our past;
C. Embody the distinctive characteristics of a type, period, or method of construction or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
D. Have yielded, or may be likely to yield, information important in prehistory or history.

In addition to meeting one or more of the criteria of significance, a property must have integrity. Integrity is defined as "the ability of a property to convey its significance." The National Register recognizes seven qualities that, in various combinations, define integrity. The seven factors that define integrity are location, design, setting, materials, workmanship, feeling, and association. To retain historic integrity a property must possess several, and usually most, of these seven aspects. Thus, the retention of the specific aspects of integrity is paramount for a property to convey its significance.

Ordinarily religious properties, moved properties, birthplaces or graves, cemeteries, reconstructed properties, commemorative properties, and properties that have achieved significance within the past 50 years are not considered eligible for the National Register unless they are integral parts of districts that meet the criteria or fall into one of the categories of the Criteria Considerations (A-G), in addition to meeting at least one of the four significance criteria and possessing integrity.

## State Regulations

### *California Environmental Quality Act*

CEQA is the principal statute governing environmental review of projects occurring in the state and is codified at Public Resources Code Section 21000 et seq. CEQA requires lead agencies to determine if a proposed project would have a significant effect on the environment, including significant effects on historical or unique archaeological resources. Under CEQA (Section 21084.1), a project that may cause a substantial adverse change in the significance of an historical resource is a project that may have a significant effect on the environment.

The CEQA Guidelines (Title 14 California Code of Regulations Section 15064.5) recognize that historical resources include: (1) a resource listed in, or determined to be eligible by the State Historical Resources Commission, for listing in the California Register; (2) a resource included in a local register of historical resources, as defined in Public Resources Code Section 5020.1(k) or identified as significant in a historical resource survey meeting the requirements of Public

Resources Code Section 5024.1(g); and (3) any object, building, structure, site, area, place, record, or manuscript which a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California by the lead agency, provided the lead agency's determination is supported by substantial evidence in light of the whole record. The fact that a resource does not meet the three criteria outlined above does not preclude the lead agency from determining that the resource may be an historical resource as defined in Public Resources Code Sections 5020.1(j) or 5024.1.

If a lead agency determines that an archaeological site is a historical resource, the provisions of Section 21084.1 of CEQA and Section 15064.5 of the CEQA Guidelines apply. If an archaeological site does not meet the criteria for a historical resource contained in the CEQA Guidelines, then the site may be treated in accordance with the provisions of Section 21083, which is as a unique archaeological resource. As defined in Section 21083.2 of CEQA a "unique" archaeological resource is 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 there is a demonstrable public interest in that information;
- Has a special and particular quality such as being the oldest of its type or the best available example of its type; or,
- Is directly associated with a scientifically recognized important prehistoric or historic event or person.

If an archaeological site meets the criteria for a unique archaeological resource as defined in Section 21083.2, then the site is to be treated in accordance with the provisions of Section 21083.2, which state that if the lead agency determines that a project would have a significant effect on unique archaeological resources, the lead agency may require reasonable efforts be made to permit any or all of these resources to be preserved in place (Section 21083.1(a)). If preservation in place is not feasible, mitigation measures shall be required. The CEQA Guidelines note that if an archaeological resource is neither a unique archaeological nor a historical resource, the effects of the project on those resources shall not be considered a significant effect on the environment (CEQA Guidelines Section 15064.5(c)(4)).

A significant effect under CEQA would occur if a project results in a substantial adverse change in the significance of a historical resource as defined in CEQA Guidelines Section 15064.5(a). Substantial adverse change is defined as "physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of a historical resource would be materially impaired" (CEQA Guidelines Section 15064.5(b)(1)). According to CEQA Guidelines Section 15064.5(b)(2), the significance of a historical resource is materially impaired when a project demolishes or materially alters in an adverse manner those physical characteristics that:

A. Convey its historical significance and that justify its inclusion in, or eligibility for, inclusion in the California Register;
B. Account for its inclusion in a local register of historical resources pursuant to section 5020.1(k) of the Public Resources Code or its identification in a historical resources survey meeting the requirements of section 5024.1(g) of the Public Resources Code, unless the public agency reviewing the effects of the project establishes by a preponderance of evidence that the resource is not historically or culturally significant; or
C. Convey its historical significance and that justify its eligibility for inclusion in the California Register as determined by a Lead Agency for purposes of CEQA.

In general, a project that complies with the Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Buildings (Secretary of the Interior's Standards for the Treatment of Historic Properties) (Weeks and Grimer, 1995) is considered to have mitigated its impacts on historical resources to a less-than-significant level (CEQA Guidelines Section 15064.5(b)(3)).

### *California Register of Historical Resources*

The California Register is "an authoritative listing and guide to be used by State and local agencies, private groups, and citizens in identifying the existing historical resources of the State and to indicate which resources deserve to be protected, to the extent prudent and feasible, from substantial adverse change" (Public Resources Code Section 5024.1(a)). The criteria for eligibility for the California Register are based upon National Register criteria (Public Resources Code Section 5024.1(b)). Certain resources are determined by the statute to be automatically included in the California Register, including California properties formally determined eligible for, or listed in, the National Register.

To be eligible for the California Register, a prehistoric or historic-period property must be significant at the local, state, and/or federal level under one or more of the following four criteria:

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

A resource eligible for the California Register must meet one of the criteria of significance described above, and retain enough of its historic character or appearance (integrity) to be recognizable as a historical resource and to convey the reason for its significance. It is possible that a historic resource may not retain sufficient integrity to meet the criteria for listing in the National Register, but it may still be eligible for listing in the California Register.

Additionally, the California Register consists of resources that are listed automatically and those that must be nominated through an application and public hearing process. The California Register automatically includes the following:

- California properties listed on the National Register and those formally determined eligible for the National Register;
- California Registered Historical Landmarks from No. 770 onward; and,
- Those California Points of Historical Interest that have been evaluated by the OHP and have been recommended to the State Historical Commission for inclusion on the California Register.

Other resources that may be nominated to the California Register include:

- Historical resources with a significance rating of Category 3 through 5 (those properties identified as eligible for listing in the National Register, the California Register, and/or a local jurisdiction register);
- Individual historical resources;
- Historical resources contributing to historic districts; and,
- Historical resources designated or listed as local landmarks, or designated under any local ordinance, such as an historic preservation overlay zone.

### *California Health and Safety Code Section 7050.5*

California Health and Safety Code Section 7050.5 requires that in the event human remains are discovered, the County Coroner be contacted to determine the nature of the remains. In the event the remains are determined to be Native American in origin, the Coroner is required to contact the NAHC within 24 hours to relinquish jurisdiction.

### *California Public Resources Code Section 5097.98*

California Public Resources Code Section 5097.98 provides procedures in the event human remains of Native American origin are discovered during project implementation. Public Resources Code Section 5097.98 requires that no further disturbances occur in the immediate vicinity of the discovery, that the discovery is adequately protected according to generally accepted cultural and archaeological standards, and that further activities take into account the possibility of multiple burials. Public Resources Code Section 5097.98 further requires the NAHC, upon notification by a County Coroner, designate and notify a Most Likely Descendant (MLD) regarding the discovery of Native American human remains. The MLD has 48 hours from the time of being granted access to

the site by the landowner to inspect the discovery and provide recommendations to the landowner for the treatment of the human remains and any associated grave goods.

In the event that no descendant is identified, or the descendant fails to make a recommendation for disposition, or if the land owner rejects the recommendation of the descendant, the landowner may, with appropriate dignity, reinter the remains and burial items on the property in a location that will not be subject to further disturbance.

*California Government Code Sections 6254(r) and 6254.10*

These sections 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."

*Tribal Consultation under Assembly Bill 52 and Related Public Resources Code Sections*

AB 52 added provisions to CEQA regarding tribal consultation and consideration of project impacts on Tribal Cultural Resources, including consideration of mitigation and alternatives that may be proposed by the Tribal representative. AB 52 was approved by California State Governor Edmund Gerry "Jerry" Brown, Jr. on September 25, 2014. The act amended California Public Resources Code Section 5097.94, and added Public Resources Code Sections 21073, 21074, 21080.3.1, 21080.3.2, 21082.3, 21083.09, 21084.2, and 21084.3. AB 52 applies specifically to projects for which a Notice of Preparation (NOP) or a Notice of Intent to Adopt a Negative Declaration or Mitigated Negative Declaration (MND) will be filed on or after July 1, 2015. The primary intent of AB 52 is to include California Native American Tribes early in the environmental review process and to establish a new category of resources related to Native Americans that require consideration under CEQA, known as tribal cultural resources. Public Resources Code Section 21074(a)(1) and (2) defines tribal cultural resources as "sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American Tribe" that are either included or determined to be eligible for inclusion in the California Register or included in a local register of historical resources, or a resource that is determined to be a tribal cultural resource by a lead agency, in its discretion and supported by substantial evidence. On July 30, 2016, the California Natural Resources Agency adopted the final text for tribal cultural resources update to Appendix G of the CEQA Guidelines, which was approved by the Office of Administrative Law on September 27, 2016.

Public Resources Code Section 21080.3.1 requires that within 14 days of a lead agency determining that an application for a project is complete, or a decision by a public agency to undertake a project, the lead agency must provide formal notification to the designated contact, or a tribal representative, of California Native American Tribes that are traditionally and culturally affiliated with the geographic area of the project (as defined in Public Resources Code Section 21073) and

who have requested in writing to be informed by the lead agency (Public Resources Code Section 21080.3.1(b)). Tribes interested in consultation must respond in writing within 30 days from receipt of the lead agency's formal notification and the lead agency must begin consultation within 30 days of receiving the tribe's request for consultation (Public Resources Code Sections 21080.3.1(d) and 21080.3.1(e)).

Public Resources Code Section 21080.3.2(a) identifies the following as potential consultation discussion topics: the type of environmental review necessary; the significance of tribal cultural resources; the significance of the project's impacts on the tribal cultural resources; project alternatives or appropriate measures for preservation; and mitigation measures. Consultation is considered concluded when either: (1) the parties agree to measures to mitigate or avoid a significant effect, if a significant effect exists, on a tribal cultural resource; or (2) a party, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached (Public Resources Code Section 21080.3.2(b)).

If a California Native American tribe has requested consultation pursuant to Section 21080.3.1 and has failed to provide comments to the lead agency, or otherwise failed to engage in the consultation process, or if the lead agency has complied with Section 21080.3.1(d) and the California Native American tribe has failed to request consultation within 30 days, the lead agency may certify an EIR (Public Resources Code Section 21082.3(d)(2) and (3)). Compliance with AB 52 requirements is documented in the Physical Setting (above).

Public Resources Code Section 21082.3(c)(1) states that any information, including, but not limited to, the location, description, and use of the tribal cultural resources, that is submitted by a California Native American tribe during the environmental review process shall not be included in the environmental document or otherwise disclosed by the lead agency or any other public agency to the public without the prior consent of the tribe that provided the information. If the lead agency publishes any information submitted by a California Native American tribe during the consultation or environmental review process, that information shall be published in a confidential appendix to the environmental document unless the tribe that provided the information consents, in writing, to the disclosure of some or all of the information to the public.

### *Senate Bill 18*

Senate Bill 18 (SB 18) (Statutes of 2004, Chapter 905), which went into effect January 1, 2005, requires local governments (city and county) to consult with Native American tribes before making certain planning decisions and to provide notice to tribes at certain key points in the planning process. The intent is to "provide California Native American tribes an opportunity to participate in local land use decisions at an early planning stage, for the purpose of protecting, or mitigating impacts to, cultural places" (Governor's Office of Planning and Research, 2005).

The purpose of involving tribes at these early planning stages is to allow consideration of cultural places in the context of broad local land use policy, before individual site-specific, project-level, land use designations are made by a local government. The consultation requirements of SB 18 apply to general plan or specific plan processes proposed on or after March 1, 2005.

According to the *Tribal Consultation Guidelines: Supplement to General Plan Guidelines* (Governor's Office of Planning and Research, 2005), the following are the contact and notification responsibilities of local governments:

- Prior to the adoption 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 NAHC) of the opportunity to conduct consultations for the purpose of preserving, or mitigating impacts on, cultural places located 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 Section 65352.3).
- Prior to the adoption or substantial amendment of a general plan or specific plan, a local government must refer the proposed action to those tribes that are on the NAHC contact list and have traditional lands located within the city or county's jurisdiction. The referral must allow a 45-day comment period (Government Code Section 65352). Notice must be sent regardless of whether prior consultation has taken place. Such notice does not initiate a new consultation process.
- Local government must send a notice of a public hearing, at least 10 days prior to the hearing, to tribes who have filed a written request for such notice (Government Code Section 65092).

## Local Regulations

### *Diamond Bar General Plan*

The Diamond Bar General Plan (1995) includes the following strategies applicable to cultural resources:

***Strategies*** 1.1.6 Pursue the preservation of areas within Diamond Bar and its Sphere of Influence, of outstanding scenic, historic, and cultural value.

1.1.12 New development should include the preservation of significant trees of cultural or historical value.

These strategies are being strengthened as part of the proposed General Plan update.

### *Los Angeles County Historic Preservation Ordinance*

The Los Angeles County Board of Supervisors adopted the County's Historic Preservation Ordinance (HPO) on September 1, 2015. The HPO establishes criteria for designating landmarks and historic districts and provides protective measures for designated and eligible historic resources. The HPO applies to all privately owned property within the unincorporated territory of the County and all publicly owned landmarks, except properties that were not listed prior to the issuance of a demolition permit or properties affiliated with religious organizations. The HPO defines a landmark as "any property, including any structure, site, place, object, tree, landscape, or natural feature, that is designated as a landmark by the Board of Supervisors." The HPO defines a

historic district as, "A contiguous or noncontiguous geographic area containing one or more contributing properties which has been designated as an historic district by the Board of Supervisors." Landmarks and historic districts may be designated if they are 50 years of age and meets one of the following criteria:

1. It is associated with events that have made a significant contribution to the broad patterns of the history of the nation, State, County, or community in which it is located;
2. It is associated with the lives of persons who are significant in the history of the nation, State, County, or community in which it is located;
3. It embodies the distinctive characteristics of a type, architectural style, period, or method of construction, or represents the work of an architect, designer, engineer, or builder whose work is of significance to the nation, State, County, or community in which it is located; or possesses artistic values of significance to the nation, State, County, or community in which it is located;
4. It has yielded, or may be likely to yield, significant and important information regarding the prehistory or history of the nation, State, County, or community in which it is located;
5. It is listed, or has been formally determined eligible by the United States National Park Service for listing, in the National Register of Historic Places, or is listed, or has been formally determined eligible by the State Historical Resources Commission for listing, on the California Register of Historical Resources;
6. If it is a tree, it is one of the largest or oldest trees of the species located in the County; or
7. If it is a tree, landscape, or other natural land feature, it has historical significance due to an association with an historic event, person, site, street, or structure, or because it is a defining or significant outstanding feature of a neighborhood.

<u>Historic Districts</u>

Property less than 50 years of age may be designated as a landmark if it meets one or more of the criteria and exhibits exceptional importance.

A geographic area, including a noncontiguous grouping of related properties, may be designated as an historic district if all of the following requirements are met:

1. More than 50 percent of owners in the proposed district consent to the designation;
2. The proposed district satisfies one or more of criteria 1 through 5; and
3. The proposed district exhibits either a concentration of historic, scenic, or sites containing common character-defining features, which contribute to each other and are unified aesthetically by plan, physical development, or architectural quality; or significant geographical patterns, associated with different eras of settlement and growth, particular transportation modes, or distinctive examples of parks or community planning.

*County of Los Angeles General Plan*

The Conservation and Natural Resources Element of the County's General Plan (applicable to unincorporated lands in the Planning Area) indicates that "Historic, cultural, and paleontological resources are an important part of Los Angeles County's identity". This element provides the following goal and policies for the treatment of cultural resources:

**Goal C/NR 14:** Protected historic, cultural, and paleontological resources.

**Policy C/NR 14.1:** Mitigate all impacts from new development on or adjacent to historic, cultural, and paleontological resources to the greatest extent feasible.

**Policy C/NR 14.2:** Support an inter-jurisdictional collaborative system that protects and enhances historic, cultural, and paleontological resources.

**Policy C/NR 14.3:** Support the preservation and rehabilitation of historic buildings.

**Policy C/NR 14.5:** Promote public awareness of historic, cultural, and paleontological resources.

**Policy C/NR 14.6:** Ensure proper notification and recovery processes are carried out for development on or near historic, cultural, and paleontological resources.

# Impact Analysis

## SIGNIFICANCE CRITERIA

For the purposes of this EIR, a significant adverse impact would occur if implementation of the Proposed Project would meet at least one of the following criteria:

**Criterion 1:** **Cause a substantial adverse change in the significance of a historical resource pursuant to § 15064.5;**

**Criterion 2:** **Cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5;**

**Criterion 3:** **Disturb any human remains, including those interred outside of dedicated cemeteries; or**

**Criterion 4:** **Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:**

a) **Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or**

**B) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.**

## METHODOLOGY AND ASSUMPTIONS

### *Historical Resources*

The records search included a review of all recorded historic built environment resources within the Planning Area and a one-half mile radius. In addition, the HRI, CHL, PHI, National Register, and California Register listings were reviewed. The purpose of this research is to determine whether or not there are previously recorded historic built environment resources within the Planning Area that require inclusion in the current analysis.

### *Archaeological Resources*

Cultural resources records searches were conducted on September 19, 2016 and June 25, 2019 at the SCCIC. The records searches included a review of all recorded archaeological resources and previous studies within the Planning Area and a one-half mile radius. Historic topographic maps on file at the SCCIC were also reviewed. The purpose of the record searches is to determine whether or not there are previously recorded archaeological resources within the Planning Area that require inclusion in the current analysis. The results also provide a basis for assessing the sensitivity of the Planning Area in regards to the potential for surface and subsurface archaeological resources to exist.

An SLF search was commissioned through the NAHC on September 21, 2016. Results of the SLF search provide information pertaining to the nature and location of additional prehistoric or Native American cultural resources in addition to those on file at the SCCIC and that require inclusion in the current analysis.

### *Tribal Cultural Resources*

The analysis of tribal cultural resources is based on a 2016 SLF search through the NAHC, as well as project notification letters that the City submitted to seven (7) Native American individuals and organizations on the City's SB 18 list dated May 31, 2018 and request to consult letters that the City submitted to five (5) individuals and organizations on the City's AB 52 Notification List dated May 9, 2019.

### *Human Remains*

The analysis of human remains is based on the SCCIC and SLF search results.

## IMPACTS

### Impact 3.4-1 Implementation of the Proposed Project would cause a substantial adverse change in the significance of a historical resource pursuant to § 15064.5. (*Significant and Unavoidable*)

Future development proposals anticipated under the General Plan that include construction, demolition, or alteration of buildings/structures/objects/landscape features (hereafter referred to as "historic resources" or "properties") could have the potential to cause a substantial adverse change to historical resources as defined by CEQA Guidelines Section 15064.5. Anticipated development in Diamond Bar and redevelopment or revitalization of underutilized properties could result in a substantial adverse change in the significance of a historical resource through physical demolition, destruction, relocation, or alteration of the resource. New construction through infill development on vacant property could result in a substantial adverse change in the significance of a historical resource through alteration of the resource's immediate surroundings. The CEQA Guidelines note that generally, a project that follows the Secretary of the Interior's Standards for the Treatment of Historic Properties is considered as mitigated to a level of less than significant impact on the historical resource. Projects that propose alteration of a historical resource and that do not adhere to these standards have the potential to result in a substantial adverse change in the significance of a historical resource. Other projects that propose demolition or alteration of, or construction adjacent to, existing historic resources over 45 years in age (the California Office of Historic Preservation's age threshold for consideration as historical resources), could also result in a substantial adverse change in the significance of a historical resource. Changes in the setting of historic buildings and structures can result from the introduction of new visible features, significant landscape changes, or other alterations that change the historic integrity of the setting of a significant resource.

Background research resulted in the identification of one known historical resource (19- 186112, Union/Southern Pacific Railroad), which has been recommended for listing in the National Register. There are no federally or state designated or listed properties within the Planning Area. However, the City has not been subject to a comprehensive Citywide historic resources survey to identify historic-age properties that could qualify for listing for national or state listing (the City does not have a local designation program). Any property that is or becomes of historic age may be a potential historical resource. A review of historic aerials indicates that there are numerous properties within the City that are more than 45 years in age. Any project that proposes the demolition, destruction, relocation, or alteration of property more than 45 years in age could result in a significant impact on historical resources.

The General Plan policies listed below would address the impact by requiring that new development be compatible with the character, scale, massing, and design of existing development, which is part of the requirements of the Secretary of the Interior's Standards for the Treatment of Historic Properties. However, these policies do not require the identification and evaluation of historic-age properties to determine if there are historical resources within or nearby a proposed project site that could be adversely impacted by a proposed project, nor do they require the retention or rehabilitation of historical resources.

Mitigation is required to ensure that historical resources are properly identified and that impacts on any identified historical resources are reduced. However, impacts on historical resources that are demolished or altered in an adverse manner such that they are no longer able to convey their historical significance and such that they are no longer eligible for inclusion in the California Register typically cannot be mitigated to a level of less than significant. [1, 2] Without information on specific future projects or a Citywide historic resources survey to identify and/or dismiss the historic significance of structures more than 45 years old, it is impossible to know if future development will avoid substantial adverse impacts on historical resources. It is reasonable to assume that future development proposals initiated under the proposed General Plan that include demolition, or substantial alteration of buildings could affect yet-identified historic structures. Therefore, even with mitigation, impacts on historical resources would be significant and unavoidable under the Proposed Project.

*Proposed General Plan Policies that Address the Impact*

<u>Land Use & Economic Development</u>

LU-G-17. Ensure that new development is sensitive to the scale of adjacent residential uses, while allowing for higher intensity development along Diamond Bar Boulevard to foster the corridor's revitalization.

LU-G-21. Ensure that new development is sensitive to the scale, density, and massing of adjacent residential uses and potential sources of noise and air pollution.

LU-P-8. Require that new residential development be compatible with the prevailing character of the surrounding neighborhood in terms of building scale, density, massing, and design. Where the General Plan designates higher densities, require adequate transitions to existing development.

LU-P-12. Require that commercial uses and shopping centers are designed in a manner compatible with adjacent residential areas in terms of traffic and noise impacts, building scale, and appropriate transitions and buffers.

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[1] CEQA Guidelines Section 15126.4(b)(2) states that in some circumstances, documentation of an historical resource, by the way of narrative, photographs or architectural drawings, as mitigation for the effects of demolition of the resource will not mitigate the effects to the point where clearly no significant effect on the environment would occur.

[2] In League of Protection of Oakland's Architectural and Historic Resources v. City of Oakland (1997) the appellate court found that "Documentation of the historical features of the building and exhibition of a plaque do not reasonably begin to alleviate the impacts of its destruction. A large historical structure, once demolished, normally cannot be adequately replaced by reports and commemorative markers. Nor, we think, are the effects of the demolition reduced to a level of insignificance by a proposed new building with unspecified design elements which may incorporate features of the original architecture into an entirely different shopping center. This is so particularly where, as here, the plans for the substitute building remain tentative and vague. We conclude that the stated mitigation measures do not reduce the effects of the demolition to less than a level of significance."

LU-P-18. Require development to be sensitive to the building form, density, massing, and scale of surrounding residential neighborhoods.

Community Character and Placemaking

CG-G-4 Preserve the scale and character of existing residential neighborhoods and ensure sensitive transitions between densities and uses.

CC-G-16. Ensure that new development is sensitive to the scale of adjacent residential uses and potential sources of noise and air pollution.

CC-P-30. Ensure that infill residential development is designed to be sensitive to the scale, character, and identity of adjacent existing development.

Resource Conservation

RC-G-15 Protect and enhance Diamond Bar's historic, cultural and archaeological resources for the educational, aesthetic, and environmental contribution that they make to Diamond Bar's identity and quality of life.

RC-P-45. Support property owners in seeking registration of eligible historic structures and sites in registration programs such as California's Historical landmarks, California Points of Historical Interest, California Register of Historical Resources, and the National Register of Historic Places.

*Mitigation Measures*

In order to ensure that historical resources are properly identified and that impacts on any identified historical resources are reduced, MM-CULT-1 is required. This would require research and survey by a qualified architectural historian, evaluation of properties for listing in the California Register, and assessment of project-specific impacts under CEQA thresholds.

MM-CULT-1 Prior to development of any project on a parcel containing at least one structure more than 45 years old and until such time a Citywide historic resource survey is completed, the project proponent shall retain a qualified architectural historian, defined as meeting the Secretary of the Interior's Professional Qualification Standards for architectural history, to conduct a preliminary assessment. If the property appears to be potentially eligible for a local, state and/or federal listing, a full historic resources assessment shall be required. A full historic resources assessment shall include: a records search at the South Central Coastal Information Center; a review of pertinent archives, databases, and sources; a pedestrian field survey; recordation of all identified historic resources on California Department of Parks and Recreation 523 forms; and preparation of a technical report documenting the methods and results of the assessment. All identified historic resources will be assessed for the project's potential to result in direct and/or indirect effects on those resources and any historic resource that may be affected shall be evaluated for its potential significance under national and state criteria

prior to the City's approval of project plans and publication of subsequent CEQA documents. The qualified architectural historian shall provide recommendations regarding additional work, treatment, or mitigation for affected historical resources to be implemented prior to their demolition or alteration. Impacts on historical resources shall be analyzed using CEQA thresholds to determine if a project would result in a substantial adverse change in the significance of a historical resource. If a potentially significant impact would occur, the City shall require appropriate mitigation to lessen the impact to the degree feasible. This mitigation measure shall not apply to minor projects that would otherwise qualify for an exemption under CEQA, such as, but not limited to, room additions, reroofs, and the removal of minor accessory structures and landscaping projects.

Even with implementation of MM-CULT-1, impacts on historical resources would remain significant and unavoidable.

### Impact 3.4-2 Implementation of the Proposed Project would not cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5. (*Less than Significant*)

Future development proposals anticipated by the General Plan that include construction-related ground disturbance (e.g., grubbing/clearing, grading, excavation, trenching, and boring) into native soil are activities that have potential to impact, or cause a substantial adverse change to archaeological resources. Future development that does not require ground-disturbing activities would cause no impacts on archaeological resources. Other development activities that include ground disturbance of heavily disturbed soils or engineered artificial fill would also cause no impact on significant archaeological resources since they have likely been displaced from previous disturbances and there is very limited to no potential to encounter intact and significant resources in disturbed soils. However, intact significant resources may be encountered beneath the depth of previous disturbances or in pockets of undisturbed soils within existing developments.

Anticipated development in the Planning Area would occur through infill development on vacant property, and through redevelopment or revitalization of underutilized properties, which could result in damage to prehistoric and historic-period archaeological resources located at or near previously undisturbed ground surfaces as result of construction-related ground disturbance. In addition, infrastructure and other improvements requiring ground disturbance could result in damage to or destruction of archaeological resources buried below the ground surface.

The SLF records search revealed that no known Native American resources from the NAHC database have been recorded within the City. However, a total of 11 archaeological resources have been recorded within the Planning Area. These resources consist of five prehistoric archaeological sites (CA-LAN-852, CA-LAN-853 and CA-LAN-854, CA-LAN-1704, and 19-002805), three prehistoric isolates (19-100793, 19-101010 and 19-101223), one historic-period archaeological site (CA-LAN-3771H), and two historic-period isolates (19-100794 and 19-100795). The prehistoric resources are chipped and ground stone scatters located within drainages or on knoll tops. CA-LAN-3771H is associated with the Diamond Bar Ranch Headquarters once owned by Frederick E.

Lewis. Research and archaeological testing on CA-LAN-3771H have added significant information to the local history of the City.

Based on results of the records search and other research, the Planning Area appears to have been a highly suitable area for the inhabitance of prehistoric people. For instance, the area contains many creeks and drainages, which would have provided fresh water for consumption. The Planning Area also encompasses portions of Tonner Canyon, which would have provided native inhabitants with food resources, such as plants and animals (oak and walnut woodland plants, the California ground squirrel, cottontail rabbit, coyote, and deer). The records search information has additionally confirmed that archaeological resources exist within the Planning Area and that these resources have been recorded as being located within drainages or on knoll tops. Although much of the Planning Area is developed, there are still many areas that contain undeveloped land. As a result of all these findings, the potential for archaeological resources in the Planning Area is considered high. Significant archaeological sites are those that have the potential to contain intact deposits of artifacts, associated features, and dietary remains that could contribute to the regional prehistoric or historic record, or that may be of cultural or religious importance to Native American groups. Any project that proposes ground disturbance could result in a significant impact on archaeological resources.

Projects that identify significant archaeological resources (i.e., those resources that qualify as historical or unique archaeological resources pursuant to CEQA Guidelines Section 15064.5 and Public Resources Code Section 21083.2, respectively) and preserve them through avoidance, permanent conservation easements, capping, or incorporation into open space, would reduce impacts on archaeological resources to a level that is less than significant. If preservation in place is not feasible, projects that conduct data recovery to recover the scientifically consequential information contained in the archaeological resource would also reduce impacts to less than significant. The General Plan policies listed below would help reduce the impact by requiring that new development include archaeological monitoring by a qualified archaeologist during grading activities within a project site that contains or is suspected to contain significant archaeological resources and that discoveries be examined by a qualified archaeologist to determine appropriate protection and preservation. However, these policies do not require the pre-construction identification and evaluation of prehistoric or historic archaeological resources to determine if there are historical or unique archaeological resources within a proposed project site that could be adversely impacted by a proposed project.

Mitigation is required to ensure that significant archaeological resources are properly identified and that impacts on any identified significant resources are reduced. With mitigation, impacts on archaeological resources would be less than significant under the Proposed Project.

### *Proposed General Plan Policies that Address the Impact*

Resource Conservation

RC-G-15 Protect and enhance Diamond Bar's historic, cultural and archaeological resources for the educational, aesthetic, and environmental contribution that they make to Diamond Bar's identity and quality of life.

RC-P-46. Establish a procedure for the management of archaeological materials found on-site during a development, including the following provisions:

a. If significant resources are known or suspected to be present on a site, require that a qualified archaeologist conduct monitoring of building demolition and/or construction grading activities.
b. If materials are found on-site during construction activities, require that work be halted until a qualified archaeologist evaluates the find and makes a recommendation for the preservation in place or recovery of the resource.

RC-P-47. Seek to preserve discovered archaeological resources in place to maintain the relationship between the artifacts and their archaeological context, where feasible.

RC-P-48. Preservation can be achieved through measures such as planning construction to avoid archaeological sites, incorporating sites within open space areas, capping the site prior to construction, and permanently protecting the site using a conservation easement.

### *Mitigation Measures*

To reduce impacts on archaeological resources for projects that would not otherwise qualify for an exemption under CEQA, project-specific archaeological studies are required for all future development that includes ground disturbance (including any action that has the potential to disturb surface soils). Project-specific archaeological studies would include archival research, geoarchaeological review or subsurface sensitivity assessment, pedestrian survey, and, possibly, subsurface testing during the CEQA planning process (i.e., prior to construction). Future development that does not require ground-disturbing activities would cause no impacts on archaeological resources and therefore no additional studies is necessary for these specific types of activities.

MM-CULT-2 Prior to development of a project that involves ground disturbance, the project proponent shall retain a qualified archaeologist, defined as meeting the Secretary of the Interior's Professional Qualification Standards for archaeology, to conduct an archaeological resources assessment including: a records search at the South Central Coastal Information Center; a Sacred Lands File search at the Native American Heritage Commission; a pedestrian field survey; recordation of all identified archaeological resources on California Department of Parks and Recreation 523 forms; an assessment of the project area's archaeological sensitivity and the potential to encounter subsurface archaeological resources and human

remains; subsurface investigation to define the horizontal and vertical extents of any identified archaeological resources; and preparation of a technical report documenting the methods and results of the study. All identified archaeological resources shall be assessed for the project's potential to result in direct and/or indirect effects on those resources and any archaeological resource that cannot be avoided shall be evaluated for its potential significance prior to the City's approval of project plans and publication of subsequent CEQA documents. The qualified archaeologist shall provide recommendations regarding protection of avoided resources and/or recommendations for additional work, treatment, or mitigation of significant resources that will be affected by the project. This mitigation measure shall not apply to minor projects that would otherwise qualify for an exemption under CEQA, such as, but not limited to, the construction of a single-family residences, excavations for swimming pools, and landscaping projects.

Implementation of Mitigation Measure MM-CULT-2 would reduce impacts on archaeological resources to less than significant.

### Impact 3.4-3 Implementation of the Proposed Project would not disturb any human remains, including those interred outside of dedicated cemeteries. (*Less than Significant*)

Impacts on human remains, including those interred outside of dedicated cemeteries, could occur as a result of future development proposals initiated under the General Plan that include ground disturbance (e.g., grubbing/clearing, grading, excavation, trenching, and boring) into native soil, as described above under Impact 3.4-2. Future development that does not require ground-disturbing activities would cause no impacts on human remains.

No known cemeteries are within the Planning Area. The SCCIC and SLF searches did not identify known human remains locations. However, given the prehistoric and historic-era occupation of the area, it is possible that as yet unknown human remains could be encountered during projects that require ground disturbance.

The treatment of human remains is regulated by California Health and Safety Code Section 7050.5 and the treatment of Native American human remains is further prescribed by Public Resources Code Section 5097.98.

These regulations are applicable to all projects within the Planning Area. While the General Plan does not include any policies related to the treatment of human remains, future development anticipated under the General Plan would be required to comply with these regulations. Therefore, impacts associated with the disturbance of human remains would be less than significant.

*Mitigation Measures*

None required.

### Impact 3.4-4 Implementation of the Proposed Project would not cause a substantial adverse change in the significance of a tribal cultural

**resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:**

**a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or**
**b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe. (*Less than Significant*)**

Impacts on tribal cultural resources could occur as a result of future development proposals anticipated under the General Plan that include ground disturbance (e.g., grubbing/clearing, grading, excavation, trenching, and boring) into native soil, as described above under Impacts 3.4-2 and 4.3-3. Future development that results in changes to the setting through incompatible adjacent construction or facilitates public access to culturally significant sites could result in additional impacts to tribal cultural resources.

As discussed in the Environmental Setting, no tribal contacts responded with identification of tribal cultural resources within or adjacent to the Planning Area. The SLF search revealed that no known Native American resources from the NAHC database have been recorded within the City. Additionally, a review of the National Register and California Register indicated that there are no federally, state, or locally identified, designated, or listed Native American resources within the Planning Area. However, there are unevaluated prehistoric resources within the Planning Area that could be potential tribal cultural resources and, given the historic occupation of the area, it is possible that future potential development within the Planning Area may result in the identification of unrecorded tribal cultural resources.

Nonetheless, future projects that would not otherwise qualify for an exemption under CEQA, such as room additions, reroofs, and the removal of accessory structures and landscaping projects, would be required to comply with the provisions of AB 52 to incorporate tribal consultation into the CEQA process. Consultation may include discussing the type of environmental review necessary, the significance of tribal cultural resources, the significance of the project's impacts on the tribal cultural resources, and alternatives and mitigation measures recommended by the tribe. The General Plan policies listed below would help address impacts to tribal cultural resources by requiring the City of Diamond Bar to establish development processes to avoid the disturbance of tribal cultural resources and create project-specific Native American consultation early in the development review process. Implementation of the General Plan policies and adherence to

existing regulations would ensure that development anticipated by the Proposed Project's tribal cultural resources impacts would be less than significant.

*Proposed General Plan Policies that Reduce the Impact*

Resource Conservation

RC-G-15. Protect and enhance Diamond Bar's historic, cultural and archaeological resources for the educational, aesthetic, and environmental contribution that they make to Diamond Bar's identity and quality of life.

RC-P-49. Establish development processes to avoid the disturbance of tribal cultural resources. Where possible, seek to preserve resources in place, exploring opportunities of permanent protection of the resources where feasible.

RC-P-50. Conduct project-specific Native American consultation early in the development review process to ensure adequate data recovery and mitigation for adverse impacts to significant Native American sites. Ensure that City staff and local developers are aware of their responsibilities to facilitate Native American consultation under Senate Bill 18 and Assembly Bill 52.

*Mitigation Measures*

None required.

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# 3.5 Energy, Climate Change, and Greenhouse Gases

This section assesses potential environmental impacts related to energy use, greenhouse gases (GHGs), and climate change from growth anticipated by the Proposed Project (proposed General Plan Update and proposed Climate Action Plan). This section describes existing energy usage, GHG emissions, and sources of GHGs in the Planning Area, as well as relevant federal, State, and local regulations and programs. Calculations and supporting documentation are in Appendix D, *Energy and Greenhouse Gas Calculations* and Appendix E, *Climate Action Plan*

There were numerous comments on the Notice of Preparation (NOP) regarding topics covered in this section. Those comments include the following topics specific to GHGs.

- A member of the public indicated that climate must be addressed for any changes from open property to developed property that can radiate or reflect heat and change airflow patterns. Similarly, a comment indicated that the EIR should study the impacts of losing open space associated with Tres Hermanos Ranch with respect to GHG and climate change. Tres Hermanos Ranch is designated as Planning Area under the proposed General Plan, but development is not slated to occur in this area given the conditions of the Tres Hermanos Conservation Authority. A net reduction in GHG sequestration would result if development were to occur in this area. Given that the Proposed Project does not propose conversion of Tres Hermanos, and that the amount and timing of any potential conversion is unknown, quantifying sequestration loss from conversion would be speculative. The potential conversion of oak woodland is discussed in more detail under Impact 3.5-1 and Chapter 3.3: Biological Resources.
- A member of the public indicated that a study of how the golf course contributes to greenhouse gas and climate change mitigation and adaptation should be conducted. Golf courses are considered developed property and as such, due to maintenance activities such as water consumption and operation of club houses and green maintenance equipment, are typically considered an emissions source. The Proposed Project applies a Community Core Overlay to the golf course while still retaining the underlying Golf Course designation. Should the County of Los Angeles choose to cease operation of the golf course, this overlay designation would require a master plan for the entire golf course property to ensure the orderly and cohesive implementation of its reuse. For the purposes of a conservative analysis within this EIR and in order to address this comment, energy and corresponding potential GHG emissions from the conversion of golf course land has been accounted for in the energy consumption analyzed in Impact 3.5-3.
- A member of the public indicated that the EIR needs to address increased traffic on Grand Ave./Golden Springs with respect to GHG emissions. Greenhouse gases are a cumulative

impact as the impacts do not directly affect local residents and instead contribute to the global impact of increased emissions. The analysis includes the aggregate contribution from mobile source emissions from anticipated future development.

- A member of the public questioned how the EIR would account for and mitigate GHG impacts with the adjacent City of Industry's projects being exempt from an EIR. Under CEQA, the Proposed Project is not required to mitigate for actions of other nearby projects. Any mitigation, plans or policies identified in this EIR and associated CAP are recommended to directly reduce impacts from the City's anticipated development. While there may be co-benefits that will reduce impacts from growth in neighboring cities, the extent of those benefits are not discussed in this EIR. Impacts associated with generation of GHG emissions within the Planning Area are assumed to be cumulatively considerable and regional in nature and are discussed in this chapter and Chapter 5: CEQA Required Conclusions.
- Hills for Everyone supported creating an EIR as well as a Climate Action Plan. No response is needed.
- Hills for Everyone requested that:
    - A baseline GHG inventory be included. A baseline GHG inventory has been included as part of the CAP. The baseline inventory is summarized here and is provided in detail in Appendix E.
    - A future conditions GHG inventory be included. A future GHG inventory has been included as part of the CAP. The future inventory is summarized here and is provided in detail in Appendix E.
    - Get to or near a $CO_2$ neutral plan. Currently the technology does not exist for Diamond Bar to reach a $CO_2$ neutral level (Net Zero) under this CAP. However, the CAP as discussed below, has been developed to reduce GHG impacts to the furthest technological feasibility. The majority of the reduction measures required to reach a Net Zero impact are related to electrical generation and fossil fuel combustion, both sources of emissions that are included in the City's emissions inventories but are beyond the direct control of the City to mandate restrictions.
- The Sierra Club indicates that CEQA requires the EIR address the potential effects of greenhouse gas emissions related to conversion of oak woodland. Currently the amount of oak woodland that would be converted, when it would be converted, or the amount of oak woodland that would be replaced is unknown. Therefore, the calculation of emissions from conversion of oak woodland would be speculative. Nonetheless, a discussion of carbon sequestration in relation to Oak woodlands is provided in Impact 3.5-1.
- The Sierra Club states that the CAP should include a thorough discussion of the values of the existing oak woodland, California Native landscapes, wildlife habitat, green space, watershed, and wetlands as contributing to a successful plan. This is discussed in the Climate Action Plan in Appendix E.

# Environmental Setting

## PHYSICAL SETTING

### Energy

*Regional Energy Conditions*

Electricity

The production of electricity requires the consumption or conversion of energy resources including water, wind, oil, gas, coal, solar, geothermal, and nuclear resources, into energy. The delivery of electricity involves a number of system components for distribution and use. The electricity generated is distributed through a network of transmission and distribution lines commonly called a power grid.

Energy capacity, or electrical power, is generally measured in watts (W), while energy use is measured in watt-hours (Wh). For example, if a light bulb has a capacity rating of 100 W, the energy required to keep the bulb on for 1 hour would be 100 Wh. If ten 100 W bulbs were on for 1 hour, the energy required would be 1,000 Wh or 1 kilowatt-hour (kWh). On a utility scale, a generator's capacity is typically rated in megawatts (MW), which is one million watts, while energy usage is measured in megawatt-hours (MWh) or gigawatt-hours (GWh), which is one billion watt-hours.

Southern California Edison (SCE) provides electrical services to approximately 15 million people, 15 counties, 180 incorporated cities including the City of Diamond Bar, 5,000 large businesses, and 280,000 small businesses throughout its 50,000-square-mile service area, across central, coastal and southern California, an area bounded by Mono County to the North, Ventura County to the West, San Bernardino County to the East, and Orange County to the South (SCE, 2019). SCE produces and purchases energy from a mix of conventional and renewable generating sources.

SCE generates power from a variety of energy sources, including large hydropower (greater than 30 MW), coal, gas, nuclear sources, and renewable resources, such as wind, solar, small hydropower (less than 30 MW), and geothermal sources. In 2017, SCE's power system experienced a peak demand of 23,508 MW (SCE, 2018; CEC, 2019). Approximately 32 percent of SCE's 2017 electricity purchases were from renewable sources, which is similar to the 29 percent statewide percentage of electricity purchases from renewable sources (CEC, 2017a). The annual electricity sale to customers in 2018 was approximately 87,143,000 megawatt hours (MWh) (SCE, 2017). See Table 3.5-1for a summary of SCE's 2018 electricity use.

**Table 3.5-1: Existing Regional Annual Energy Use**

| *Energy* | *Usage (2018)* |
|---|---|
| Electricity (SCE) | 87,143,000 MWh |
| Natural Gas (SoCalGas) | 988,785,000 MMBtu |
| Gasoline (County of LA) | 3,659,000,000 gallons |
| Diesel (County of LA) | 590,196,078 gallons |

*Sources: SCE, 2018; California Gas and Electric Utilities, 2018; CEC, 2017b.*

Natural Gas

Natural gas is a combustible mixture of simple hydrocarbon compounds (primarily methane) that is used as a fuel source. Natural gas consumed in California is obtained from naturally occurring reservoirs and delivered through high-pressure transmission pipelines. Natural gas provides almost one-third of the State's total energy requirements. Natural gas is measured in terms of both cubic feet (cf) or British thermal units (Btu).

The City of Diamond Bar is served by the Southern California Gas Company (SoCalGas), which is the principal distributor of natural gas in Southern California, serving residential, commercial, and industrial markets. SoCalGas serves approximately 21.6 million customers in more than 500 communities encompassing approximately 20,000 square miles throughout central and southern California, from the City of Visalia to the US/Mexican border (SoCalGas, 2019).

SoCalGas, along with five other California utility providers, released the *2018 California Gas Report*, presenting a forecast of natural gas supplies and requirements for California through the year 2035. This report predicts gas demand for all sectors (residential, commercial, industrial, energy generation and wholesale exports) and presents best estimates, as well as scenarios for hot and cold years. Overall, SoCalGas predicts a decrease in natural gas demand in future years due to a decrease in per capita usage, energy efficiency policies, and the State's transition to renewable energy displacing fossil fuels including natural gas (California Gas and Electric Utilities, 2018).

SoCalGas receives gas supplies from several sedimentary basins in the western United States (US) and Canada, including supply basins located in New Mexico (San Juan Basin), west Texas (Permian Basin), the Rocky Mountains, and western Canada as well as local California supplies (California Gas and Electric Utilities, 2018). Sources of natural gas in the southwestern US will continue to supply most of SoCalGas' natural gas demand. The Rocky Mountain supply is available but is used as an alternative supplementary supply source, and Canadian sources provide only a small share of SoCalGas supplies due to the high cost of transport (California Gas and Electric Utilities, 2018). Gas supply available to SoCalGas from California sources averaged 2,625 million cf per day or 2,717 million Btu (MMBtu) in 2017, the most recent year for which data are available (California Gas and Electric Utilities, 2018). This equates to an annual average of 892,060 million cf per year or 992 million MMBtu per year. See Table 3.5-1 for a summary of SoCalGas' 2018 natural gas use.

Transportation Energy

According to the California Energy Commission (CEC), transportation accounted for nearly 38.5 percent of total energy consumption in California during 2015 (CEC, 2017c). In 2016, 15.5 billion gallons of gasoline and 3.8 billion gallons of diesel fuel were consumed in California (CEC, 2017b). Petroleum-based fuels currently account for more than 90 percent of California's transportation fuel use (CEC, 2017d).

The State is now working on developing flexible strategies to reduce petroleum use. Over the last decade, California has implemented several policies, rules, and regulations to improve vehicle efficiency, increase the development and use of alternative fuels, reduce air pollutants and GHGs from the transportation sector, and reduce vehicle miles traveled (VMT). Accordingly, gasoline consumption in California has declined. The CEC predicts that the demand for gasoline will continue to decline over the next 10 years, and there will be an increase in the use of alternative fuels (CEC, 2017c). According to fuel sales data from the CEC, fuel consumption in Los Angeles County was approximately 3.66 billion gallons of gasoline and 0.59 billion gallons of diesel fuel in 2017 (CEC, 2017b). See Table 3.5-1 for a summary of Statewide fossil fuel consumption in 2017.

*Local Energy Conditions*

The City of Diamond Bar is a mix of residential, commercial, retail, office, industrial, school, and open space land uses (see Chapter 3.9: Land Use and Housing for a complete description of existing land uses).

All of these uses, besides the existing open space, actively consume electricity for lighting, electronics, appliances, and water conveyance. Natural gas is also used for cooking, water heating, and building heating/cooling at the four active land uses, and transportation fuels are used for visitor, vendor, and worker trips to and from the existing active land uses, as well as, off road equipment used onsite by some of the land uses.

The existing energy use consumption for the active uses within the Planning Area are summarized in Table 3.5-2. Detailed energy calculations are provided in Appendices D and E of this Draft EIR.

**Table 3.5-2 Estimated Existing Energy Consumption within the Planning Area**

| *Energy* | *Usage* |
|---|---:|
| Electricity (SCE) | 231,577 MWh |
| Natural Gas (SoCalGas) | 805,647 MMBtu |
| Gasoline | 22,963,590 gallons |
| Diesel | 4,156,399 gallons |

*Sources: ESA, 2019; Dyett & Bhatia, 2019.*

## Greenhouse Gas Emissions

### *Greenhouse Gases*

GHGs are compounds in the earth's atmosphere that play a critical role in determining temperature near the earth's surface. Specifically, these gases allow high-frequency shortwave solar radiation to enter the earth's atmosphere, but retain some of the low frequency infrared energy which is radiated back from the earth towards space, resulting in a warming of the atmosphere. Not all GHGs possess the same ability to induce climate change; as a result, GHG contributions are commonly quantified in the units of carbon dioxide equivalents ($CO_2e$). Mass emissions are calculated by converting pollutant specific emissions to CO2e emissions by applying the proper global warming potential (GWP) value. These GWP ratios are available from the Intergovernmental Panel on Climate Change (IPCC). By applying the GWP ratios, $CO_2e$ emissions can be tabulated in metric tons per year. Typically, the GWP ratio corresponding to the warming potential of carbon dioxide ($CO_2$) over a 100-year period is used as a baseline. The State of California uses the GWPs from the IPCC Fourth Assessment Report (AR4) in the official State GHG emissions inventory (IPCC, 2007). Prior to the 2014 reporting year, the State utilized GWPs from the IPCC Second Assessment Report (SAR). Compounds that are regulated as GHGs are discussed below.

- Carbon Dioxide (CO2). CO2 is the most abundant GHG in the atmosphere and is primarily generated from fossil fuel combustion from stationary and mobile sources. CO2 is the reference gas (GWP of 1) for determining the GWPs of other GHGs.
- Methane (CH4). CH4 is emitted from biogenic sources (i.e., resulting from the activity of living organisms), incomplete combustion in forest fires, landfills, manure management, and leaks in natural gas pipelines. The GWP of CH4 is 21 in the IPCC SAR and 25 in the IPCC AR4.
- Nitrous Oxide (N2O). N2O produced by human-related sources including agricultural soil management, animal manure management, sewage treatment, mobile and stationary combustion of fossil fuel, adipic acid production, and nitric acid production. The GWP of N2O is 310 in the IPCC SAR and 298 in the IPCC AR4.
- Hydrofluorocarbons (HFCs). HFCs are fluorinated compounds consisting of hydrogen, carbon, and fluorine. They are typically used as refrigerants in both stationary refrigeration and mobile air conditioning systems. The GWPs of HFCs ranges from 140 for HFC-152a to 11,700 for HFC-23 in the IPCC SAR and 124 for HFC-152a to 14,800 for HFC-23 in the IPCC AR4.
- Perfluorocarbons (PFCs). PFCs are fluorinated compounds consisting of carbon and fluorine. They are primarily created as a byproduct of aluminum production and semiconductor manufacturing. The GWPs of PFCs range from 6,500 to 9,200 in the IPCC SAR and 7,390 to 17,700 in the IPCC AR4.
- Sulfur Hexafluoride (SF6). SF6 is a fluorinated compound consisting of sulfur and fluoride. It is a colorless, odorless, nontoxic, nonflammable gas. It is most commonly used as an electrical insulator in high voltage equipment that transmits and distributes electricity. SF6 has a GWP of 23,900 in the IPCC SAR and 22,800 in the IPCC AR4.

### *Effects of Global Climate Change*

The scientific community's understanding of the fundamental processes responsible for global climate change has improved over the past decade, and its predictive capabilities are advancing. However, there remain significant scientific uncertainties in, for example, predictions of local effects of climate change, occurrence, frequency, and magnitude of extreme weather events, effects of aerosols, changes in clouds, shifts in the intensity and distribution of precipitation, and changes in oceanic circulation. Due to the complexity of the Earth's climate system and inability to accurately model all climate parameters, the uncertainty surrounding climate change may never be completely eliminated. Nonetheless, the IPCC, in its Fifth Assessment Report, Summary for Policy Makers, stated that, "it is extremely likely [95–100 percent] that more than half of the observed increase in global average surface temperature from 1951 to 2010 was caused by the anthropogenic increase in greenhouse gas concentrations and other anthropogenic forcings together." (IPCC, 2013). A report from the National Academy of Sciences concluded that 97 to 98 percent of the climate researchers most actively publishing in the field support the tenets of the IPCC in that climate change is very likely caused by human (i.e., anthropogenic) activity (Anderegg, 2010).

According to the California Air Resources Board (CARB), the potential impacts in California due to global climate change may include: loss in snow pack; sea level rise; more extreme heat days per year; more high ozone days; more large forest fires; more drought years; increased erosion of California's coast-lines and sea water intrusion into the Sacramento and San Joaquin Deltas and associated levee systems; and increased pest infestation (CalEPA, 2006). Below is a summary of some of the potential effects, reported by an array of studies that could be experienced in California as a result of global warming and climate change.

#### Temperature Increase

The primary effect of adding GHGs to the atmosphere has been a rise in the average global temperature. The impact of human activities on global temperature is readily apparent in the observational record. Since 1895, the contiguous US has observed an average temperature increase of 1.5°F per century. The last five-year period (2014–2018) is the warmest on record for the contiguous US (NOAA, 2018), while the 20 warmest years have occurred over the past 22-year period (Climate Central, 2019).

The Fourth Assessment indicates that average temperatures in California could rise 5.6°F to 8.8°F by the end of the century, depending on the global trajectory of GHG emissions (OPR, 2018). According to the Cal-Adapt website, the portion of the state in which the city is located could result in an average increase in temperature of approximately 4.2° to 6.9°F by 2070-2090, compared to the baseline period of 1961-1990.

With climate change, extreme heat conditions and heat waves are predicted to impact larger areas, last longer, and have higher temperatures. Heat waves, defined as three or more days with temperatures above 90°F, are projected to occur more frequently by the end of the century. Extreme heat days and heat waves can negatively impact human health. Heat-related illness includes a

spectrum of illnesses ranging from heat cramps to severe heat exhaustion and life-threatening heat stroke (CalEPA, 2013).

Air Quality

Higher temperatures, conducive to air pollution formation, could worsen air quality in California and make it more difficult for the State to achieve air quality standards. Climate change may increase the concentration of ground-level ozone in particular, which can cause breathing problems, aggravate lung diseases such as asthma, emphysema, chronic bronchitis, and cause chronic obstructive pulmonary disease (COPD), but the magnitude of the effect, and therefore, its indirect effects, are uncertain. Emissions from wildfires can lead to excessive levels of particulate matter, ozone, and volatile organic compounds (Kenward, 2013). Additionally, severe heat accompanied by drier conditions and poor air quality could increase the number of heat-related deaths, illnesses, and asthma attacks throughout the state (CalEPA 2013).

Water Supply

There is a high degree of uncertainty with respect to the overall impact of global climate change on future water supplies in California. Studies indicate considerable variability in predicting precise impacts of climate change on California hydrology and water resources. Increasing uncertainty in the timing and intensity of precipitation will challenge the operational flexibility of California's water management systems. Warmer, wetter winters would increase the amount of runoff available for groundwater recharge; however, this additional runoff would occur at a time when some basins are either being recharged at their maximum capacity or are already full. Conversely, reductions in spring runoff and higher evapotranspiration because of higher temperatures could reduce the amount of water available for recharge (CNR, 2014).In addition, droughts in California are a recurring feature of California's climate. The most recent drought from 2012-2016 was one of extreme proportions, with record-high temperatures and record-low levels of snowpack and precipitation. Drought negatively impacts both the quantity and quality of water supplies. Drought can also compromise water quality, such as by concentrating salts and other contaminants, reducing dissolved oxygen levels, and increasing water temperatures.

Hydrology and Sea Level Rise

Climate changes could potentially affect: the amount of snowfall, rainfall and snow pack; the intensity and frequency of storms; flood hydrographs (flash floods, rain or snow events, coincidental high tide and high runoff events); sea level rise and coastal flooding; coastal erosion; and the potential for salt water intrusion. Sea level rise can be a product of global warming through two main processes: expansion of seawater as the oceans warm, and melting of ice over land. A rise in sea levels could result in coastal flooding and erosion and could jeopardize California's water supply. Sea level could potentially rise as much as two feet along most of the US coastline. Increased storm intensity and frequency could affect the ability of flood-control facilities, including levees, to handle storm events (CNR, 2014).

Agriculture

California has a massive agricultural industry that represents 11.3 percent of total U.S agricultural revenue. Higher CO2 levels can stimulate plant production and increase plant water-use efficiency. However, a changing climate presents significant risks to agriculture due to "potential changes to water quality and availability; changing precipitation patterns; extreme weather events including drought, severe storms, and floods; heat stress; decreased chill hours; shifts in pollinator lifecycles; increased risks from weeds, pest and disease; and disruptions to the transportation and energy infrastructure supporting agricultural production" (CNR, 2014).

Ecosystem and Wildlife

Increases in global temperatures and the potential resulting changes in weather patterns could have ecological effects on a global and local scale. Increased concentrations of GHGs are likely to accelerate the rate of climate change. Scientists expect that the average global surface temperature could rise by 2-11.5°F (1.1-6.4°C) by 2100, with significant regional variation (NRC, 2010). Soil moisture is likely to decline in many regions, and intense rainstorms are likely to become more frequent. With climate change, ecosystems and wildlife will be challenged by the spread of invasive species, barriers to species migration or movement in response to changing climatic conditions, direct impacts to species health, and mismatches in timing between seasonal life-cycle events such as species migration and food availability (CNR, 2014).

Wildfires

The hotter and dryer conditions expected with climate change will make forests more susceptible to extreme wildfires. One study found that, if GHG emissions continue to rise, the frequency of extreme wildfires burning over approximately 25,000 acres would increase by nearly 50 percent, and the average area burned statewide each year would increase by 77 percent, by the year 2100. In the areas that have the highest fire risk, wildfire insurance is estimated to see costs rise by 18 percent by 2055 and the fraction of property insured would decrease (Westerling, 2018).

*Existing Conditions*

Global Emissions

Worldwide human-made emissions of GHGs were approximately 49,000 million metric tons (MMT) of $CO_2e$ annually including ongoing emissions from industrial and agricultural sources and emissions from land use changes (e.g., deforestation) (IPCC, 2014). Emissions of $CO_2$ from fossil fuel use and industrial processes account for 65 percent of the total while $CO_2$ emissions from all sources accounts for 76 percent of the total. Methane emissions account for 16 percent and $N_2O$ emissions for 6.2 percent. In 2013, the United States was the world's second largest emitter of carbon dioxide at 5,300 $MMTCO_2e$ (China was the largest emitter of carbon dioxide at 10,300 $MMTCO_2e$) (PBL, 2014).

US Emissions

In 2017, the United States emitted about 6,457 MMT of $CO_2e$, 76.1 percent of which came from fossil fuel combustion. Of the major sectors nationwide, transportation accounts for the highest amount of GHG emissions (approximately 29 percent), followed by electricity (28 percent), industry (22 percent), agriculture (9 percent), commercial buildings (6 percent), and residential buildings (5 percent). Between 1990 and 2017, total US GHG emissions rose by 1.3 percent, but emissions have generally decreased since peaking in 2005. Since 1990, US emissions have increased at an average annual rate of 0.4 percent (US EPA, 2019).

California Greenhouse Gas Emissions Inventory

CARB compiles GHG inventories for the State. Based on the 2016 GHG inventory data (i.e., the latest year for which data are available from CARB) prepared by CARB in 2018, California emitted 429.4 million metric tons of $CO_2e$ ($MMTCO_2e$) including emissions resulting from imported electrical power (CARB, 2018a). Between 1990 and 2016, the population of California grew by approximately 9.4 million (from 29.8 to 39.2 million) (DOF, 2019). This represents an increase of approximately 31 percent from 1990 population levels. In addition, the California economy, measured as gross state product, grew from $773 billion in 1990 to $2.26 trillion in 2016 representing an increase of approximately 292 percent (almost three times the 1990 gross state product) in today's dollars (DOF, 2018). Despite the population and economic growth, CARB's 2016 statewide inventory indicated that California's net GHG emissions in 2016 were just below 1990 levels, which is the 2020 GHG reduction target codified in California Health and Safety Code (HSC), Division 25.5, also known as The Global Warming Solutions Act of 2006 (AB 32). Table 3.5-3 identifies and quantifies statewide anthropogenic GHG emissions and sinks (e.g., carbon sequestration due to forest growth) in 1990 and 2016. As shown in Table 3.5-3, the transportation sector is the largest contributor to statewide GHG emissions at approximately 39 percent in 2016.

**Table 3.5-3: State of California Greenhouse Gas Emissions**

| *Category* | *Total 1990 Emissions Using IPCC SAR ($MMTCO_2e$)* | *Percent of Total 1990 Emissions* | *Total 2016 Emissions using IPCC AR4 ($MMTCO_2e$)* | *Percent of Total 2016 Emissions* |
|---|---|---|---|---|
| Transportation | 150.7 | 35% | 169.4 | 39% |
| Electric Power | 110.6 | 26% | 68.6 | 16% |
| Commercial | 14.4 | 3% | 15.2 | 4% |
| Residential | 29.7 | 7% | 24.2 | 6% |
| Industrial | 103.0 | 24% | 89.6 | 21% |
| Recycling and Waste[a] | - | - | 8.8 | 2% |
| High GWP/Non-Specified[b] | 1.3 | <1% | 19.8 | 5% |
| Agriculture/Forestry | 23.6 | 6% | 33.8 | 8% |
| Forestry Sinks | -6.7 | | —[c] | —[c] |
| **Net Total (IPCC SAR)** | **426.6** | **100%[e]** | — | — |
| **Net Total (IPCC AR4)[d]** | **431** | **100%[e]** | **429.4** | **100%** |

[a] Included in other categories for the 1990 emissions inventory.
[b] High GWP gases are not specifically called out in the 1990 emissions inventory.
[c] Revised methodology under development (not reported for 2012).
[d] CARB revised the state's 1990 level GHG emissions using GWPs from the IPCC Fourth Assessment Report (IPCC AR4).
[e] Total of individual percentages may not add up to 100% due to rounding. Revised methodology under development (not reported for 2016).

*Sources: CARB, 2007; CARB 2018a.*

City of Diamond Bar Greenhouse Gas Emissions Inventory

The City of Diamond Bar has developed a GHG Emissions Inventory for the City in conjunction with the development of the Climate Action Plan (CAP). The CAP is a part of the Proposed Project evaluated in this environmental analysis and is included as Appendix E. Table 3.5-4 is a summary of the City's 2016 emissions from each sector.

**Table 3.5-4: City of Diamond Bar GHG Emissions by Sector (2016)**

| *Sector* | *$MTCO_2e$* | *Percent of Total* |
|---|---|---|
| Residential | 64,175 | 18.4% |
| Commercial | 31,755 | 9.1% |
| Industrial | 245 | 0.1% |
| Transportation | 242,007 | 69.4% |
| Solid Waste | 6.180 | 1.8% |
| Water | 1,016 | 0.3% |
| Wastewater | 650 | 0.2% |
| Off-Road Equipment | 1,985 | 0.6% |
| Public Lighting | 776 | 0.2% |
| **TOTAL** | **348,790** | **100%** |

*Source: Dyett & Bhatia, 2019.*

As shown in Table 3.5-4, the City's community and municipal GHG emissions in 2016 are 348,790 $MTCO_2e$. The transportation sector was the largest contributor to the most recent inventory at over 69 percent of the total. Residential Energy consumption is the second-largest contributor to emissions at 18.4 percent of the total, followed by Commercial (9.1 percent). Industrial Energy, Solid Waste, Water, Wastewater, Off-Road Equipment, and Public Lighting make up the remaining 3.1 percent.

## REGULATORY SETTING

### Federal Regulations

#### *Energy Policy Act of 1992*

The Energy Policy Act (EPAct) of 1992 was passed to reduce US dependence on foreign petroleum and improve air quality. EPAct includes several provisions intended to build an inventory of alternative fuel vehicles (AFVs) in large, centrally fueled fleets in metropolitan areas. EPAct requires certain Federal, State, and local government and private fleets to purchase a percentage of light-duty AFVs capable of running on alternative fuels each year. Financial incentives are also included in EPAct. Federal tax deductions will be allowed for businesses and individuals to cover the incremental cost of AFVs. States are also required by the EPAct to consider a variety of incentive programs to help promote AFVs.

#### *Energy Policy Act of 2005*

The Energy Policy Act of 2005 includes provisions for renewed and expanded tax credits for electricity generated by qualified energy sources, such as landfill gas; provides bond financing, tax incentives, grants, and loan guarantees for clean renewable energy and rural community electrification; and establishes a Federal purchase requirement for renewable energy.

### *Corporate Average Fuel Economy (CAFE) Standards*

Established by the US Congress in 1975, the CAFE standards reduce energy consumption by increasing the fuel economy of cars and light trucks. The National Highway Traffic Safety Administration (NHTSA) and US EPA jointly administer the CAFE standards. The US Congress has specified that CAFE standards must be set at the "maximum feasible level" with consideration given to: (1) technological feasibility; (2) economic practicality; (3) effect of other standards on fuel economy; and (4) need for the nation to conserve energy.[1]

Fuel efficiency standards for medium- and heavy-duty trucks have been jointly developed by US EPA and NHTSA. The Phase 1 heavy-duty truck standards apply to combination tractors, heavy-duty pickup trucks and vans, and vocational vehicles for model years 2014 through 2018, and result in a reduction in fuel consumption from 6 to 23 percent over the 2010 baseline, depending on the vehicle type (US EPA, 2011). US EPA and NHTSA have also adopted the Phase 2 heavy-duty truck standards, which cover model years 2021 through 2027 and require the phase-in of a 5 to 25 percent reduction in fuel consumption over the 2017 baseline depending on the compliance year and vehicle type (US EPA, 2016).

### *US Department of Transportation, US Department of Energy, and US Environmental Protection Agency on Transportation Energy*

On the federal level, the US Department of Transportation, US Department of Energy, and US EPA are three agencies with substantial influence over energy policies related to transportation fuels consumption. Generally, federal agencies influence transportation energy consumption through establishment and enforcement of fuel economy standards for automobiles and light trucks, through funding of energy-related research and development projects, and through funding for transportation infrastructure projects.

### *US Environmental Protection Agency "Endangerment" and "Cause or Contribute" Findings*

In *Massachusetts v. Environmental Protection Agency, 549 U.S. 497* (2007), 12 states and cities, including California, together with several environmental organizations, sued to require US EPA to regulate GHGs as pollutants under the Federal Clean Air Act (CAA). The US Supreme Court ruled that GHGs fit within the CAA's definition of a pollutant and US EPA had the authority to regulate GHGs.

[1] For more information on the CAFE standards, refer to https://www.nhtsa.gov/laws-regulations/corporate-average-fuel-economy.

In 2009, the US EPA Administrator signed two distinct findings regarding GHGs under Section 202(a) of the CAA:

- **Endangerment Finding**: The current and projected concentrations of the six key GHGs—CO2, CH4, N2O, HFCs, PFCs, and SF6—in the atmosphere threaten the public health and welfare of current and future generations
- **Cause or Contribute Finding:** The combined emissions of these GHGs from new motor vehicles and new motor vehicle engines contribute to the GHG pollution that threatens public health and welfare.

These findings did not, by themselves, impose any requirements on industry or other entities. However, these actions were a prerequisite for implementing GHG emissions standards for motor vehicles.

*Mandatory Greenhouse Gas Reporting Rule*

On September 22, 2009, US EPA released its final Greenhouse Gas Reporting Rule (Reporting Rule). The Reporting Rule was a response to the fiscal year (FY) 2008 Consolidated Appropriations Act (H.R. 2764; Public Law 110-161), that required US EPA to develop "…mandatory reporting of GHGs above appropriate thresholds in all sectors of the economy…." The Reporting Rule applied to most entities that emit 25,000 metric tons of $CO_2e$ or more per year at their facility from stationary sources. Starting in 2010, facility owners were required to submit an annual GHG emissions report with detailed calculations of facility GHG emissions. The Reporting Rule also mandated recordkeeping and administrative requirements in order for US EPA to verify annual GHG emissions reports.

*Vehicle Emissions Standards*

In 1975, Congress enacted the Energy Policy and Conservation Act, which established the first fuel economy standards for on-road motor vehicles in the US. Pursuant to the act, US EPA and National Highway Traffic Safety Administration (NHTSA) are responsible for establishing additional vehicle standards. In 2012, standards were adopted for model year 2017 through 2025 for passenger cars and light-duty trucks. Under the standards, by 2025 vehicles are required to achieve 54.5 mpg (if GHG reductions are achieved exclusively through fuel economy improvements) and 163 grams of $CO_2$ per mile. According to US EPA, a model year 2025 vehicle would emit one-half of the GHG emissions as compared to emissions from a model year 2010 vehicle (US EPA, 2012). California harmonized its vehicle efficiency standards through 2025 with the federal standards (see Advanced Clean Cars Program below).

In 2017, US EPA issued its Mid-Term Evaluation of the GHG emissions standards, finding that it would be practical and feasible for automakers to meet the model year 2022-2025 standards through a number of existing technologies. In 2018, US EPA revised its 2017 determination, and issued a proposed rule that maintains the 2020 Corporate Average Fuel Economy (CAFE) and $CO_2$ standards for model years 2021 through 2026 (Federal Register, 2018). The estimated CAFE and $CO_2$ standards for model year 2020 are 43.7 mpg and 204 grams of $CO_2$ per mile for passenger cars and 31.3 mpg and 284 grams of $CO_2$ per mile for light trucks, projecting an overall industry average of 37 mpg, as compared to 46.7 mpg under the standards issued in 2012. In 2019, the state of

California, joined by 16 other states and the District of Columbia, filed a petition challenging the US EPA's proposed rule to revise the vehicle emissions standards, arguing that US EPA had reached erroneous conclusions about the feasibility of meeting the existing standards (Amicus Brief, 2019). As of April, 9, 2019, the case was pending and oral arguments had not been scheduled. Accordingly, due to the uncertainty of future federal regulations, this analysis assumes that the existing CAFE standards will remain unchanged.

## State Regulations

### *California Public Utilities Commission*

The California Public Utilities Commission (CPUC) is a State agency created by a constitutional amendment to regulate privately owned utilities providing telecommunications, electric, natural gas, water, railroad, rail transit, and passenger transportation services, and in-State moving companies. The CPUC is responsible for assuring that California utility customers have safe, reliable utility services at reasonable rates, while protecting utility customers from fraud. The CPUC regulates the planning and approval for the physical construction of electric generation, transmission, or distribution facilities; and local distribution pipelines of natural gas (CPUC, 2019).

### *California Energy Commission*

The California Energy Commission (CEC) is California's primary energy policy and planning agency. The CEC has five major responsibilities: (1) forecasting future energy needs and keeping historical energy data; (2) licensing thermal power plants 50 MW or larger; (3) promoting energy efficiency through appliance and building standards; (4) developing energy technologies and supporting renewable energy; and (5) planning for and directing State response to energy emergencies.

### *Senate Bill 1389*

Senate Bill (SB) 1389 (Public Resources Code PRC sections 25300–25323) requires the CEC to prepare a biennial integrated energy policy report that assesses major energy trends and issues facing the state's electricity, natural gas, and transportation fuel sectors and provides policy recommendations to conserve resources; protect the environment; ensure reliable, secure, and diverse energy supplies; enhance the state's economy; and protect public health and safety (Public Resources Code PRC section 25301(a)). The 2017 Integrated Energy Policy Report provides the results of the CEC's assessments of a variety of energy issues facing California including energy efficiency, strategies related to data for improved decisions in the Existing Buildings Energy Efficiency Action Plan, building energy efficiency standards, the impact of drought on California's energy system, achieving 50 percent renewables by 2030, the California Energy Demand Forecast, the Natural Gas Outlook, the Transportation Energy Demand Forecast, Alternative and Renewable Fuel and Vehicle Technology Program benefits updates, an update on electricity infrastructure in Southern California, an update on trends in California's sources of crude oil, an update on California's nuclear plants, and other energy issues.

### *California Health and Safety Code, Division 25.5 – California Global Warming Solutions Act of 2006 (AB 32)*

In 2006, following the issuance of Executive Order S-3-05, the California Global Warming Solutions Act of 2006 (passed as Assembly Bill (AB) 32 and codified in the California Health and Safety Code [HSC], Division 25.5) focuses on reducing GHG emissions in California to 1990 levels by 2020. HSC Division 25.5 defines GHGs as $CO_2$, $CH_4$, $N_2O$, HFCs, PFCs, and $SF_6$ and represents the first enforceable statewide program to limit emissions of these GHGs from all major industries with penalties for noncompliance. The law further requires that reduction measures be technologically feasible and cost effective. AB 32 also tasked the CEC and CPUC with providing information, analysis, and recommendations to CARB regarding strategies to reduce GHG emissions in the energy sector.

Under HSC Division 25.5, CARB has the primary responsibility for reducing GHG emissions. CARB is required to adopt rules and regulations directing state actions that would achieve GHG emissions reductions equivalent to 1990 statewide levels by 2020.In 2016, SB 32 and its companion bill AB 197 amend HSC Division 25.5 and establish a new climate pollution reduction target of 40 percent below 1990 levels by 2030 and include provisions to ensure that the benefits of state climate policies reach into disadvantaged communities.

### *Senate Bill (SB) 1078 (Sher) (Chapter 516, Statutes of 2002)* ***and*** *SB 107 (Simitian) (Chapter 464, Statutes of 2006)*

In 2002, the passage of SB 1078 established the Renewables Portfolio Standard (RPS), which requires retail sellers of electricity, including investor-owned utilities and community choice aggregators, to provide at least 20 percent of their supply from eligible renewable sources by 2017. SB 107, adopted in 2006, changed the target date to 2010.

### *Executive Order S-14-08*

In 2008, Executive Order S-14-08 expanded the state's RPS goal to 33 percent renewable power by 2020. In 2009, Executive Order S-21-09 directed CARB (under its AB 32 authority) to enact regulations to help the state meet the 2020 goal of 33 percent renewable energy. The 33 percent by 2020 RPS goal was codified with the passage of Senate Bill X1-2. This new RPS applied to all electricity retailers in the state, including publicly owned utilities (POUs), investor-owned utilities, electricity service providers, and community choice aggregators.

CPUC and the CEC jointly implement the RPS program. The CPUC's responsibilities include: (1) determining annual procurement targets and enforcing compliance; (2) reviewing and approving each investor-owned utility's renewable energy procurement plan; (3) reviewing contracts for RPS-eligible energy; and (4) establishing the standard terms and conditions used in contracts for eligible renewable energy.

### *SB 100 (Chapter 312, Statutes of 2018)*

In 2018, SB 100 established that 100 percent of all electricity in California must be obtained from renewable and zero-carbon energy resources by the end of 2045. SB 100 also creates new standards for the RPS, increasing required energy from renewable sources for both investor-owned utilities and publicly-owned utilities from 50 percent to 60 percent by the end of 2030. Incrementally, these energy providers must also have a renewable energy supply of 44 percent by the end of 2024, and 52 percent by the end of 2027. The updated RPS goals are considered achievable, since many California energy providers are already meeting or exceeding the RPS goals established by SB 350.

### *California Building Standards Code (Title 24, Parts 6 and 11)*

The California Building Energy Efficiency Standards for Residential and Nonresidential Buildings (California Code of Regulations [CCR], Title 24, Part 6) were adopted to ensure that building construction and system design and installation achieve energy efficiency and preserve outdoor and indoor environmental quality. The current California Building Energy Efficiency Standards (Title 24 standards) are the 2016 Title 24 standards, which became effective 2017. The 2016 Title 24 standards include efficiency improvements to the residential standards for attics, walls, water heating, and lighting; and efficiency improvements to the non-residential standards include alignment with the American Society of Heating and Air-Conditioning Engineers (ASHRAE) 90.1-2013 national standards.

The CEC first adopted Energy Efficiency Standards for Residential and Nonresidential Buildings (CCR, Title 24, Part 6) in 1978 in response to a legislative mandate to reduce energy consumption in the State. Although not originally intended to reduce GHG emissions, increased energy efficiency and reduced consumption of electricity, natural gas, and other fuels would result in fewer GHG emissions from residential and nonresidential buildings subject to the standard. The standards are updated periodically (typically every three years) to allow for the consideration and inclusion of new energy efficiency technologies and methods.

The current Title 24, Part 6 standards (2016 standards) were made effective 2017. The next update to the Title 24 energy efficiency standards (2019 standards) goes into effect 2020.

The California Green Building Standards Code (California Code of Regulations (CCR), Title 24, Part 11), commonly referred to as the CALGreen Code, became effective 2017. The 2016 CALGreen Code includes mandatory measures for non-residential development related to site development, energy efficiency, water efficiency and conservation; material conservation and resource efficiency; and environmental quality. Most mandatory measure changes, when compared to the previously applicable 2013 CALGreen Code, were related to the definitions and to the clarification or addition of referenced manuals, handbooks, and standards. For example, several definitions related to energy that were added or revised affect electric vehicle (EV) chargers and charging, and hot water recirculation systems. For new multi-family dwelling units, the residential mandatory measures were revised to provide additional EV charging requirements, including quantity, location, size, single EV space, multiple EV spaces, and identification. For non-residential mandatory measures, Table 5.106.5.3.3 of the CALGreen Code, identifying the number of required EV charging spaces has been revised in its entirety. Refer to Section 3.7, Greenhouse Gas Emissions, of this Draft EIR for additional details regarding these standards.

### *California Assembly Bill (AB) 1493 (Pavley)*

In 2002, AB 1493 (Pavley) required CARB to set GHG emission standards for passenger vehicles, light duty trucks, and other vehicles whose primary use is non-commercial personal transportation manufactured in and after 2009.

To meet the requirements of AB 1493, CARB approved amendments to the California Code of Regulations (CCR) in 2004, requiring automobile manufacturers to meet fleet-average GHG emissions limits for all passenger cars, light-duty trucks within various weight criteria, and medium-duty passenger vehicle weight classes (i.e., any medium-duty vehicle with a gross vehicle weight [GVW] rating of less than 10,000 pounds and that is designed primarily for the transportation of persons), beginning with model year 2009. For passenger cars and light-duty trucks with a loaded vehicle weight (LVW) of 3,750 pounds or less, the GHG emission limits for model year 2016 are approximately 37 percent lower than the limits for the first year of the regulations, model year 2009. For light-duty trucks with an LVW of 3,751 pounds to a GVW of 8,500 pounds, as well as for medium-duty passenger vehicles, GHG emissions will be reduced approximately 24 percent between 2009 and 2016.

Because the Pavley standards (named for the bill's author, state Senator Fran Pavley) would impose stricter standards than those under the CAA, California applied to the US EPA for a waiver under the CAA. In 2009, US EPA granted the waiver, which has been extended consistently since 2009.

As discussed previously, the federal government adopted standards for model year 2012 through 2016 light-duty vehicles. In addition, US EPA and US Department of Transportation (USDOT) have adopted GHG emission standards for model year 2017 through 2025 vehicles. These standards are slightly different from the state's standards (described below in the Advanced Clean Cars Program), but the state of California has agreed not to contest them, in part due to the fact that while the national standard would achieve slightly fewer reductions in California, the national standard would achieve greater reductions nationally and is stringent enough to meet state GHG emission reduction goals

### *California Assembly Bill (AB) 341*

In 2011, Assembly Bill 341 requires that integrated waste management plans set a policy goal of reducing not less than 75% of solid waste to be diverted from landfill disposal by 2020. AB 341 also requires that any business that generates more than 4 cubic yards of commercial solid waste per week to arrange for recycling services.

### *Clean Air Act*

The Federal Clean Air Act, passed in 1970 and last amended in 1990, forms the basis for the national air pollution control effort. The EPA is responsible for implementing most aspects of the Clean Air Act, including the setting of NAAQS for major air pollutants, hazardous air pollutant standards, approval of State attainment plans, motor vehicle emission standards, stationary source emission standards and permits, acid rain control measures, stratospheric O3 protection, and enforcement provisions. NAAQS are established for "criteria pollutants" under the Clean Air Act, which are O3, CO, NO2, SO2, PM10, PM2.5, and lead.

### *Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling*

In 2004, CARB adopted an Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling to reduce public exposure to diesel particulate matter emissions (Title 13 California Code of Regulations [CCR] Section 2485). The measure applies to diesel-fueled commercial vehicles with gross vehicle weight ratings greater than 10,000 pounds that are licensed to operate on highways, regardless of where they are registered. This measure prohibits diesel-fueled commercial vehicles from idling for more than five minutes at any given location. While the goal of this measure is primarily to reduce public health impacts from diesel emissions, compliance with the regulation also results in energy savings in the form of reduced fuel consumption from unnecessary idling.

### *Airborne Toxic Control Measure to for Stationary CI Engines*

In 2004, CARB adopted an Airborne Toxic Control Measure to reduce public exposure to diesel particulate matter emissions and criteria pollutant emissions from stationary diesel-fueled compression ignition (CI) engines (Title 17 California Code of Regulations [CCR] Section 93115). The measure applies to any person who owns or operates a stationary CI engine in California with a rated brake horsepower greater than 50, or anyone who either sells, offers for sale, leases, or purchases a stationary CI engine. This measure outlines fuel and fuel additive requirements; emission standards; recordkeeping, reporting and monitoring requirements; and compliance schedules for CI engines.

### *Low Carbon Fuel Standard*

In 2007, Executive Order S-01-07 mandates that the state: (1) establish a statewide goal to reduce the carbon intensity of California's transportation fuels by at least 10 percent by 2020; and (2) adopt a Low Carbon Fuel Standard (LCFS) for transportation fuels in California. The overall goal of the LCFS is to lower the carbon intensity of California transportation fuel. The 2017 Scoping Plan Update calls for the LCFS to reduce fuel carbon intensity by at least 18 percent by 2030. In 2018, CARB extended the LCFS program to 2030, making significant changes to the design and implementation of the Program including a doubling of the carbon intensity reduction to 20 percent by 2030.

### *Regulations to Reduce Emissions of Diesel Particulate Matter, Nitrogen Oxides and other Criteria Air Pollutants, from In-Use Heavy-Duty Diesel-Fueled Vehicles*

In addition to limiting exhaust from idling trucks, in 2008, CARB approved the Truck and Bus regulation to reduce $NO_X$, PM10, and PM2.5 emissions from existing diesel vehicles operating in California (13 CCR section 2025). The phased regulation aims to reduce emissions by requiring installation of diesel soot filters and encouraging the retirement, replacement, or retrofit of older engines with newer emission-controlled models. The phasing of this regulation has full implementation by 2023.

CARB also promulgated emission standards for off-road diesel construction equipment of greater than 25 horsepower (hp) such as bulldozers, loaders, backhoes and forklifts, as well as many other self-propelled off-road diesel vehicles. The In-Use Off-Road Diesel-Fueled Fleets regulation

adopted by CARB in 2007, aims to reduce emissions by installation of diesel soot filters and encouraging the retirement, replacement, or repower of older, dirtier engines with newer emission-controlled models (13 CCR section 2449). The compliance schedule requires full implementation by 2023 in all equipment for large and medium fleets and by 2028 for small fleets.

While the goals of these measures are primarily to reduce public health impacts from diesel emissions, compliance with the regulation has shown an increase in energy savings in the form of reduced fuel consumption from more fuel-efficient engines (Cummins, 2014).

### *CARB's Advanced Clean Car Program*

The Advanced Clean Cars Emissions-Control Program was approved by CARB in 2012 and is closely associated with the Pavley regulations (CARB, 2017a). The program requires a greater number of zero-emission vehicle models for years 2015 through 2025 to control smog, soot, and GHG emissions. This program includes the Low-Emissions Vehicle (LEV) regulations to reduce criteria air pollutants and GHG emissions from light- and medium-duty vehicles; and the Zero-Emissions Vehicle regulations (ZEV) to require manufactures to produce an increasing number of pure ZEV's (meaning battery and fuel cell electric vehicles) with the provision to produce plug-in hybrid electric vehicles (PHEV) between 2018 and 2025.

### *Sustainable Communities and Climate Protection Act of 2008 (SB 375)*

In 2008, SB 375 (Chapter 728, Statutes of 2008) established mechanisms for the development of regional targets for reducing passenger vehicle greenhouse gas emissions. Under SB 375, CARB is required, in consultation with the state's Metropolitan Planning Organizations (MPOs), to set regional GHG reduction targets for the passenger vehicle and light-duty truck sector for 2020 and 2035 (CARB, 2018b).

Under SB 375, the regional reduction target must be incorporated within the applicable MPO's Regional Transportation Plan (RTP), which is used for long-term transportation planning, in a Sustainable Communities Strategy (SCS). Certain transportation planning and programming activities need to be consistent with the SCS, and consistency with the SCS can provide certain CEQA streamlining for proposed projects; however, SB 375 expressly provides that the SCS does not regulate the use of land, and further provides that local land use plans and policies (e.g., general plan) are not required to be consistent with either the RTP or SCS.

In 2011, CARB adopted GHG emissions reduction targets for SCAG, the MPO for the region in which the City of Diamond Bar is located. In 2018, CARB updated the SB 375 targets to require an 8 percent reduction by 2020 and a 19 percent reduction by 2035 in per capita passenger vehicle GHG emissions (CARB, 2017b; CARB, 2018c). As these reduction targets were updated after SCAG adopted the 2016-2040 Regional Transportation Plan/Sustainable Communities Strategy (2016 RTP/SCS), it is expected that a future iteration of the RTP/SCS will be updated to reflect these targets. The proposed reduction targets explicitly exclude emission reductions expected from the AB 1493 and the LCFS regulations.

### *Executive Order S-3-05*

In 2005, Executive Order S-3-05 established the following GHG emission reduction targets:

- By 2010, California shall reduce GHG emissions to 2000 levels;
- By 2020, California shall reduce GHG emissions to 1990 levels; and
- By 2050, California shall reduce GHG emissions to 80 percent below 1990 levels.

### *Executive Order B-30-15*

In 2015, Executive Order B-30-15:

- Established a new interim statewide reduction target to reduce GHG emissions to 40 percent below 1990 levels by 2030;
- Ordered all state agencies with jurisdiction over sources of GHG emissions to implement measures to achieve reductions of GHG emissions to meet the 2030 and 2050 reduction targets; and
- Directed CARB to update the Climate Change Scoping Plan to express the 2030 target in terms of million metric tons of carbon dioxide equivalent.

### *2017 CARB Climate Change Scoping Plan*

A specific requirement of AB 32 was the preparation of a Climate Change Scoping Plan for achieving the maximum technologically feasible and cost-effective GHG emission reduction by 2020. CARB developed and approved the initial Scoping Plan in 2008, outlining the regulations, market-based approaches, voluntary measures, policies, and other emission reduction programs that would be needed to meet the 2020 statewide GHG emission limit and initiate the transformations needed to achieve the state's long-range climate objectives (CARB, 2008). The First Update to the Scoping Plan was approved by CARB in 2014 and built upon the initial Scoping Plan with new strategies and recommendations and a revised target.

In response to SB 32 and the 2030 GHG reduction target, CARB approved the 2017 Climate Change Scoping Plan Update (2017 Scoping Plan Update) in 2017. The 2017 Scoping Plan Update outlines the proposed framework of action for achieving the 2030 GHG target of 40 percent reduction in GHG emissions relative to 1990 levels. The 2017 Scoping Plan Update identifies key sectors of the state's implementation strategy, which includes improvements in low carbon energy, industry, transportation sustainability, natural and working lands, waste management, and water. Through a combination of data synthesis and modeling, CARB determined that the target statewide 2030 emissions limit is 260 $MMTCO_2e$, and that further commitments will need to be made to achieve an additional reduction of 50 $MMTCO_2e$ beyond current policies and programs. The cornerstone of the 2017 Scoping Plan Update is an expansion of the Cap-and-Trade Program (discussed further below) to meet the aggressive 2030 GHG emissions goal and ensure achievement of the 2030 limit set forth by E.O. B-30-15.

The 2017 Scoping Plan Update's strategy for meeting the state's 2030 GHG target incorporates the full range of legislative actions and state-developed plans that have relevance to the year 2030, including the following, described elsewhere in this section:

- Extending the LCFS beyond 2020 and increasing the carbon intensity reduction requirement to 18 percent by 2030;
- SB 350, which increases the RPS to 50 percent by 2030 and requires the CEC to establish annual targets for statewide energy efficiency savings and demand reduction that will achieve a cumulative doubling of statewide energy efficiency savings in electricity and natural gas final end uses of retail customers by 2030. These targets may be achieved through energy efficiency savings and demand reductions from a variety of programs, including but not limited to appliance and building energy efficiency standards and a comprehensive program to achieve greater energy efficiency standards in existing buildings;
- The 2016 Mobile Source Strategy is estimated to reduce emissions from mobile sources including an 80 percent reduction in smog-forming emissions and a 45 percent reduction in diesel particulate matter from 2016 levels in the South Coast Air Basin, a 45 percent reduction in statewide GHG emissions (from both on-road and off-road mobile sources) and a 50 percent reduction in statewide consumption of petroleum-based fuels;
- The Sustainable Freight Action Plan to improve freight efficiency and transition to zero-emission freight handling technologies (described in more detail below);
- SB 1383, which requires a 50 percent reduction in anthropogenic black carbon and a 40 percent reduction in hydrofluorocarbon and methane emissions below 2013 levels by 2030; and
- AB 398, which extends the state Cap-and-Trade Program through 2030.

In the 2017 Scoping Plan Update, CARB recommends statewide targets of no more than six MT $CO_2e$ per capita by 2030 and no more than two metric tons $CO_2e$ per capita by 2050. CARB acknowledges that because the statewide per capita targets are based on the statewide GHG emissions inventory that includes all emissions sectors in the state (including large industrial sources covered under the state's cap and trade program), they are not applicable for use at the local level. Rather, it is appropriate for local jurisdictions to derive evidence-based local per-capita goals based on local emissions sectors and growth projections.

To demonstrate how a local jurisdiction can achieve their long-term GHG goals at the community plan level, CARB recommends developing a geographically specific GHG reduction plan (i.e., climate action plan) consistent with the requirements of CEQA Guidelines section 15183.5(b). A so-called "CEQA-qualified" GHG reduction plan, once adopted, can provide local governments with a streamlining tool for project-level environmental review of GHG emissions, provided there are adequate performance metrics for determining project consistency with the plan. Absent conformity with such a plan, CARB recommends "that projects incorporate design features and GHG reduction measures, to the degree feasible, to minimize GHG emissions. Achieving no net additional increase in GHG emissions, resulting in no contribution to GHG impacts, is an appropriate overall objective for new development" (CARB, 2017c).

### *SB 32 and AB 197*

In 2016, SB 32 and its companion bill AB 197, augmented AB 32 and amended HSC Division 25.5, establishing a new climate pollution reduction target of 40 percent below 1990 levels by 2030 and including provisions to ensure the benefits of state climate policies reach into disadvantaged communities.

### *Cap-and-Trade Program*

Initially authorized by AB 32, and extended through the year 2030 with the passage of AB 398 in 2017, the California Cap-and-Trade Program is a core strategy that the state is using to meet its GHG reduction targets for 2020 and 2030, and ultimately achieve an 80 percent reduction from 1990 levels by 2050. CARB designed and adopted the California Cap-and-Trade Program to reduce GHG emissions from "covered entities"[2] (e.g., electricity generation, petroleum refining, cement production, and large industrial facilities that emit more than 25,000 metric tons $CO_2e$ per year), setting a firm cap on statewide GHG emissions and employing market mechanisms to achieve reductions.[3] Under the Cap-and-Trade Program, an overall limit is established for GHG emissions from capped sectors. The statewide cap for GHG emissions from the capped sectors commenced in 2013. The cap declines over time. Facilities subject to the cap can trade permits to emit GHGs.[4]

If California's direct regulatory measures reduce GHG emissions more than expected, then the Cap-and-Trade Program will be responsible for relatively fewer emissions reductions. If California's direct regulatory measures reduce GHG emissions less than expected, then the Cap-and-Trade Program will require relatively more emission reductions. In other words, the Cap-and-Trade Program can be adaptively managed by the state to ensure achievement of California's 2020 and 2030 GHG emissions reduction mandates, depending on whether other regulatory measures are more or less effective than anticipated.

### *California Environmental Quality Act and Senate Bill 97*

In 2007, SB 97, acknowledged that climate change is an environmental issue requiring analysis under CEQA. This bill directed the Governor's Office of Planning and Research (OPR) to prepare, develop, and transmit to the California Natural Resources Agency (CNRA) guidelines for the feasible mitigation of GHG emissions or the effects of GHG emissions, as required by CEQA. SB 97 required the CNRA to certify or adopt those guidelines. In 2009, CNRA adopted amendments to the State CEQA Guidelines, as required by SB 97. In 2010, the CEQA Guidelines amendments provide guidance to public agencies regarding the analysis and mitigation of the effects of GHG emissions in draft CEQA documents.

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[2] "Covered Entity" means an entity within California that has one or more of the processes or operations and has a compliance obligation as specified in subarticle 7 of the Cap-and-Trade Regulation; and that has emitted, produced, imported, manufactured, or delivered in 2008 or any subsequent year more than the applicable threshold level specified in section 95812 (a) of the Regulation.

[3] 17 CCR §§ 95800 to 96023.

[4] See generally 17 CCR §§ 95811, 95812.

### *Advanced Clean Cars Program*

In 2012, CARB approved the Pavley II (LEV III) Advanced Clean Cars Program, an emissions-control scheme for model years 2015 through 2025 that allows manufacturers to comply with the 2017 through 2025 national standards while meeting state law. The program includes components to reduce smog-forming pollution, reduce GHG emissions, promote clean cars, and provide the fuels for clean cars. The ZEV program will act as the focused technology of the Advanced Clean Cars Program by requiring manufacturers to produce increasing numbers of ZEVs and plug-in hybrid electric vehicles (PHEV) in the 2018 to 2025 model years (CARB, 2017c).

### *Executive Order B-16-12 (2025 Goal for Zero-Emission Vehicles)*

In 2012, Executive Order B-16-12 established a goal of 1.5 million ZEVs on California roads by 2025. In addition to the ZEV goal, EO B-16-12 stipulated that by 2015 all major cities in California will have adequate infrastructure and be 'zero-emission vehicle ready'; that by 2020 the state will have established adequate infrastructure to support 1 million ZEVs; that by 2050, virtually all personal transportation in the state will be based on ZEVs; and that GHG emissions from the transportation sector will be reduced by 80 percent below 1990 levels.

### *Mobile Source Strategy*

In 2016, CARB released the updated Mobile Source Strategy that demonstrates how the state can simultaneously meet air quality standards, achieve GHG emission reduction targets, decrease health risk from transportation emissions, and reduce petroleum consumption over the next 15 years. The strategy promotes a transition to zero-emission and low-emission vehicles, cleaner transit systems and reduction of VMT. The Mobile Source Strategy calls for 1.5 million ZEVs (including plug-in hybrid electric, battery-electric, and hydrogen fuel cell vehicles) by 2025 and 4.2 million ZEVs by 2030. The strategy also calls for more stringent GHG requirements for light-duty vehicles beyond 2025 as well as GHG reductions from medium-duty and heavy-duty vehicles and increased deployment of zero-emission trucks primarily for class 3 – 7 "last mile" delivery trucks in California. Statewide, the Mobile Source Strategy would result in a 45 percent reduction in GHG emissions from mobile sources and a 50 percent reduction in the consumption of petroleum-based fuels (CARB, 2016c).

### *Executive Order B-48-18 (2030 Goal for Zero-Emission Vehicles)*

In 2018, Executive Order B-48-18 established a goal of 5 million ZEVs on California roads by 2030, in recognition of the critical need to reduce emissions from the transportation sector in order to meet the GHG emissions target of SB 32.

### *Senate Bill 350*

SB 350 (The Clean Energy and Pollution Reduction Act of 2015, Chapter 547, Statutes of 2015) increased the RPS by requiring an increase in the amount of electricity generated and sold to retail customers per year from eligible renewable energy resources from 33 percent to 50 percent by the end of 2030. SB 350 also requires the State Energy Resources Conservation and Development Commission to establish annual targets for statewide energy efficiency savings and demand

reduction that will achieve a cumulative doubling of statewide energy efficiency savings in existing electricity and natural gas final end uses of retail customers by January 2030.

### *SB 1383 (Short-lived Climate Pollutants)*

In 2016, SB 1383 required statewide reductions in short-lived climate pollutants (SLCPs) across various industry sectors. SLCPs covered under AB 1383 include methane, fluorinated gases, and black carbon – all GHGs with a much higher warming impact than carbon dioxide and with the potential to have detrimental effects on human health. SB 1383 requires the CARB to adopt a strategy to reduce methane by 40 percent, hydrofluorocarbon gases by 40 percent, and anthropogenic black carbon by 50 percent below 2013 levels by 2030. The methane emission reduction goals include a 75 percent reduction in the level of statewide disposal of organic waste from 2014 levels by 2025.

## Regional

### *Southern California Association of Governments*

The 2016–2040 RTP/SCS is a long-range visioning plan that balances future mobility and housing needs with economic, environmental, and public health goals, with a specific goal of achieving an 8 percent reduction in passenger vehicle GHG emissions on a per capita basis by 2020, 18 percent reduction by 2035, and 21 percent reduction by 2040 compared to the 2005 level. Although the RTP/SCS is not technically an energy efficiency plan, consistency with the RTP/SCS has energy implications, including the reduction of VMT, which reduces GHG emissions and has the co-benefit of reducing fossil fuel consumption from travel to and from the Project Site.

SCAG's 2016 RTP/SCS is designed to support development of compact communities in existing urban areas, with more mixed-use and infill development, and reuse of developed land that is also served by high quality transit. The 2016 RTP/SCS describes how the region can attain the GHG emission-reduction targets set by CARB by reducing VMT to achieve an 8 percent reduction in passenger vehicle emissions by 2020, 19 percent reduction by 2035, and 21 percent reduction by 2040 compared to the 2005 level on a per capita basis. As shown in Tables 3.5-4 and 3.5-6, implementation of State and local actions, General Plan land use and circulation elements, and proposed General Plan policies would reduce transportation-related emissions by 21 percent between 2016 and 2040 (242,007 $MTCO_2e$ and 168,154 $MTCO_2e$, respectively).

The 2016 RTP/SCS includes strategies for transportation and land use that are designed to reduce VMT and the GHG emissions associated with on-road vehicle travel. This includes, but is not limited to, strategies that increase the density and mix of land uses; focus growth around transit; provide transit improvements; expand active transportation networks; expand regional charging infrastructure for electric vehicles, and expand TDM programs.

The 2016 RTP/SCS overall land use pattern reinforces the trend of focusing new housing and employment in infill areas well served by transit. The 2012 RTP/SCS also identified High Quality Transit Areas (HQTAs), which are defined as locations where two or more high frequency transit routes intersect. The 2016 RTP/SCS assumes that 46 percent of new housing and 55 percent of new

employment locations developed between 2012 and 2040 will be located within infill areas well served by transit, which comprise only three percent of the total land area in the SCAG region.

The TDM strategies in the 2016 RTP/SCS are focused on reducing peak period and SOV travel by encouraging behavior shifts to carpooling or vanpooling or reducing peak period travel. SCAG encourages employers to offer telecommuting or alternative work week schedules to help reduce peak period travel. TDM strategies, together with emerging trends in the workplace, aim to increase telecommuting from 5 percent to 10 percent by 2040 and alternative work schedules from 4 percent to 15 percent by 2040.

*South Coast Air Quality Management District*

The Proposed Project Planning Area is located in the South Coast Air Basin (Air Basin), which consists of Orange County, Los Angeles County (excluding the Antelope Valley portion), and the western, non-desert portions of San Bernardino and Riverside Counties, in addition to the San Gorgonio Pass area in Riverside County. SCAQMD is responsible for air quality planning in the Air Basin and developing rules and regulations to bring the area into attainment with the ambient air quality standards. This is accomplished though air quality monitoring, evaluation, education, implementation of control measures to reduce emissions from stationary sources, permitting and inspection of pollution sources, enforcement of air quality regulations, and supporting and implementing measures to reduce emissions from motor vehicles.

In 1990, SCAQMD adopted a "Policy on Global Warming and Stratospheric Ozone Depletion", the policy commits SCAQMD to consider global impacts in rulemaking and in drafting revisions to the Air Quality Management Plan. In 1992, the SCAQMD Governing Board reaffirmed this policy and adopted amendments to the policy to include the following directives:

- Phase out the use and corresponding emissions of chlorofluorocarbons, methyl chloroform (1,1,1-trichloroethane or TCA), carbon tetrachloride, and halons by December 1995;
- Phase out the large quantity use and corresponding emissions of hydrochlorofluorocarbons by the year 2000;
- Develop recycling regulations for hydrochlorofluorocarbons (e.g., SCAQMD Rules 1411 and 1415);
- Develop an emissions inventory and control strategy for methyl bromide; and
- Support the adoption of a California GHG emission reduction goal.

In 2008, SCAQMD released draft guidance regarding interim CEQA GHG significance thresholds (SCAQMD, 2008), which proposed the use of a percent emission reduction target to determine significance for commercial/residential projects that emit greater than 3,000 $MTCO_2e$ per year. In 2008, the SCAQMD Governing Board adopted the staff proposal for an interim GHG significance threshold for stationary source/industrial projects where the SCAQMD is lead agency. However, SCAQMD did not adopt a GHG significance threshold for land use development projects (e.g., mixed-use/commercial projects) and formed a GHG Significance Threshold Working Group to further evaluate potential GHG significance thresholds. This Working Group has been inactive

since 2011 and SCAQMD has not formally adopted any GHG significance threshold guidance for land use development projects.

## Local Regulations

### *City of Diamond Bar Building Code*

The City of Diamond Bar has not yet adopted a sustainability plan or GHG reduction plan, but has drafted a CAP in conjunction with the General Plan Update, which, if adopted, will serve as the City's Qualified GHG Reduction Strategy. Moreover, the City has adopted latest edition of the California Green Building Standards Code (CALGreen). CALGreen, which applies to all new buildings (residential and non-residential), increases energy efficiency and reduces waste. Green building standards also have the co-benefit of reducing criteria pollutant emissions through the increase in energy efficiencies. CALGreen mandates green building requirements throughout California. Diamond Bar's adoption of CALGreen includes local, more restrictive amendments deemed necessary to account for local climatic, geological and topographical conditions.

### *City of Diamond Bar Climate Action Plan*

The City of Diamond Bar has prepared a draft CAP to guide the City in reducing environmental impacts from GHG emissions. The CAP is included in the Proposed Project analyzed in this EIR and discussed in more detail below.

### *LA County Community Climate Action Plan (CCAP)*

In 2015, the 2020 Community Climate Action Plan (CCAP) was adopted by the County of Los Angeles (County). The CCAP describes the County's plan to reduce the impacts of climate change by reducing GHG emissions from community activities in the unincorporated areas of the County by at least 11% below 2010 levels by 2020. The 2020 CCAP is in the process of being updated by the County.

### *LA County Renewable Energy Ordinance*

The Renewable Energy Ordinance (REO), adopted by the Los Angeles County Board of Supervisors in 2016, updates the County's planning and zoning code for the review and permitting of solar and wind energy projects. The REO helps California meet its goals for renewable energy generation and GHG gas reduction, while minimizing environmental and community impacts.

### *LA County Green Building Program Standards*

As stated, the California Green Building Standards are applicable statewide. Los Angeles County adopted CALGreen under Title 31 of the Los Angeles County Code.

# Impact Analysis

## SIGNIFICANCE CRITERIA

For the purposes of this EIR, a significant adverse impact would occur if implementation of the Proposed Project would:

**Criterion 1:** **Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment;**

**Criterion 2:** **Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases;**

**Criterion 3:** **Cause wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation; or**

**Criterion 4:** **Conflict with or obstruct a State or local plan for renewable energy or energy efficiency.**

## METHODOLOGY AND ASSUMPTIONS

### Greenhouse Gas Emissions

*Construction*

The Proposed Project is a planning-level document, and, as such, there are no specific projects, project construction dates, or specific construction plans identified. Therefore, quantification of emissions associated with buildout cannot be specifically determined at this level of review. Based on the proposed land use designations, a reasonable buildout scenario has been assumed for purposes of programmatic analysis.

Construction emissions are based on the type and amount of off-road construction equipment and the size of the project. Therefore, since CalEEMod provides default construction scenarios based on size and land use type, a reasonable worst case annual construction scenario was analyzed.[5]

Construction anticipated by the Proposed Project may result in GHG emissions of $CO_2$ and smaller amounts of $CH_4$ and $N_2O$ from construction equipment and mobile sources, such as haul trucks and worker vehicles. Construction emissions were calculated for each year of construction activity using CalEEMod and applying emission factors from EMFAC2017 to calculate mobile source emissions. Construction emissions were forecasted based on an expectation of a maximum of 10 percent of the total buildout area that could be potentially developed in any year. This is a

[5] Note that CalEEMod estimates daily emissions based on the size and type of the development (determined as 10% of total buildout per year and broken down into smaller "projects), the number of days that would be needed to complete the activity (CalEEMod default) and the amount of equipment and employees that would be needed to accomplish construction (CalEEMod default).

conservative assumption used to provide a worst-case daily estimate of construction emissions. The buildout will likely occur throughout the full 20-year horizon, and therefore, likely more total project construction emissions would occur (i.e. it is likely that some projects would extend for more than one year, and therefore, would increase total project emissions) Therefore, this analysis uses a conservative estimate of total project emissions by assuming the annual emissions from the 10 percent construction scenario would occur throughout the entire 20-year planning horizon. Also, since it is assumed that construction occurs at the earliest possible time (i.e. modeling for a 2020-year construction scenario), the potential for reduction in GHG emissions from more efficient engines is not accounted for, as older equipment phases out over the 20-year buildout horizon.

CalEEMod defaults were used to determine construction equipment based on the type of construction anticipated by the Proposed Project. Modeling assumed 12 single-family residential units, 377 multi-family residential units, 182,058 square feet of non-residential buildings, and 1.23 acres of park could be developed in any one year. The modeling also assumes that 20,300 square feet of existing light industrial uses would be demolished in a given year. Consistent with SCAQMD methodology, GHG emissions from construction were amortized over a 30-year lifetime, as it is assumed that new uses would continue to operate for at least 30 years.

### *Operational*

Operational emissions anticipated by the Proposed Project include emissions from energy use (electricity and natural gas), on-road motor vehicles (mobile), off-road motor vehicles (e.g. forklifts and aerial lifts), solid waste, water and wastewater, area sources (landscaping), and onsite stationary sources (emergency generators). Detailed methodology for each emission source is presented below.

Methodology for quantifying existing and future operational GHG emissions is detailed in Appendix E and summarized here. A community inventory was developed and compiled by emissions sector, for current and future operational GHG emissions in the City of Diamond Bar. The inventory uses a base year of 2016 (the year from which most data was available) and projects GHG emissions levels for the SB 32 target year of 2030 and the General Plan horizon year of 2040. In addition to using the most recent VMT calculated for the proposed General Plan, the analysis also calculated additional reductions from policies already included in the Proposed Project (e.g. bicycle and pedestrian infrastructure, traffic calming measures, parking policies, etc.).

#### Energy

The growth anticipated by the Proposed Project would consume energy (electricity and natural gas) for multiple purposes including, but not limited to, building heating and cooling, lighting, and electronics. For all land uses, building electricity and natural gas usage for existing uses were provided by the Southern California Edison and the Southern California Gas Company. Forecasting for future years assumed a growth rate based on buildout for each land use type and increased, or decreased (in the case of light industrial use) the consumption accordingly. GHG emissions also take into account the RPS requirements throughout the planning period.

Mobile Sources

Operations anticipated by the Proposed Project would include vehicle trips related to the operation of land uses. Mobile source emissions were calculated using VMT data as provided in Chapter 3.12: Transportation, which takes into account mode and trip lengths. However, policies within the General Plan Circulation element, which the regional travel demand model is not sensitive to (such as connectivity in neighborhoods, presence of bicycle and pedestrian facilities, and transportation demand management measures), are not reflected in these estimates. Proposed policies which would reduce overall VMT and consumption of transportation-related energy are listed in the Impact Analysis below. VMT was provided for 2016, 2030, and 2040 and emissions were calculated based on EMFAC2014 emission factors for $CO_2$, $CH_4$, and $N_2O$.

Solid Waste

Solid waste generation anticipated by the Proposed Project would include generation from day-to-day operational activities, which generally consists of product packaging, grass clippings, bottles, food scraps, newspapers, plastic, and other items routinely disposed of in trash bins. A portion of the waste is diverted to waste recycling and reclamation facilities. Waste that is not diverted is typically sent to local landfills for disposal, where it results in GHG emissions of $CO_2$ and $CH_4$ from the decomposition of the waste that occurs over the span of many years.

The amount of solid waste generated by the existing City activities was provided by the City of Diamond Bar, Waste Management, and Valley Vista Services. Solid waste generation anticipated by the Proposed Project was estimated by assuming the generation of solid waste increases with population and was scaled accordingly. Emissions factors from the Waste Reduction Model (WARM) version 14 were used to determine the GHG emissions associated with each target year.

Water and Wastewater

GHG emissions from water use and wastewater are associated with the electrical energy used to treat and transport the water. Emissions associated with the Proposed Project's anticipated operations were calculated based on water consumption and wastewater generation. Water consumption was provided by the City of Diamond Bar, the Walnut Valley Water District, and the San Jose Creek Water Reclamation Plant for the 2016 baseline year. Water consumption for future years was determined based on growth assumptions as detailed in the Climate Action Plan emissions calculations. Anticipated water usage for the project at buildout is 12,153 acre feet per year. Wastewater assumptions used the wastewater treatment intensity factor provided by CEC.

## Energy

The discussion below presents the methodology used to analyze the potential energy usage anticipated by the Proposed Project, including electricity, natural gas, and transportation fuels during construction and operational phases. Specific assumptions and data sources needed to quantify energy consumption during both construction and operation are detailed in Appendices D and E respectively. The methods used for the energy calculations are the same as those used for the GHG calculations. Similar to GHG emissions analysis, the construction analysis here quantifies

a worst case potential construction scenario for informational purposes and to support the qualitative findings.

*Construction*

Construction energy consumption anticipated by the Proposed Project would result from transportation fuels (e.g., diesel and gasoline) used for haul trucks, heavy-duty construction equipment, construction workers traveling to and from project sites, electricity consumed to light and cool the construction trailers, conveyance of water for dust control, and any electrically-driven construction equipment. Construction activities could vary substantially from day-to-day, depending on the specific type of construction activity and the number of workers and vendors that would travel to project sites. This analysis considered these factors and provides the estimated maximum construction energy consumption for the purposes of evaluating the associated impacts on energy resources.

Construction fuel use was forecasted by assuming a conservative estimate of construction activities based on CalEEMod default assumptions. Construction assumed 10 percent of all new uses and demolition would occur in a year to provide a worst-case construction year. Additionally, the initial construction year of 2020 was used as a conservative estimate of emissions from vehicle fleets and construction equipment. As the onset of construction would very throughout the planning horizon, construction impacts would be similar to or less than those analyzed, because more energy-efficient and cleaner burning construction equipment and vehicle fleet mix would be expected in the future. This is due to the In-Use Off-Road Diesel-Fueled Fleets Regulation implemented by CARB that requires construction equipment fleet operators to phase-in less polluting heavy-duty equipment and trucks over time (CARB, 2010).

Electricity

Construction electricity use was estimated for water usage from dust control activities. In addition to emissions outputs, CalEEMod, was used to estimate project emissions of criteria air pollutants and GHGs, and estimates of electricity, natural gas, and water use. In order to achieve internal consistency through this EIR, the same model used for air quality and GHG analyses was also used for the purposed of estimating energy use.

Electricity use from water conveyance for dust control on-site anticipated by the Proposed Project was conservatively estimated using a standard water usage factor per square foot for irrigated landscaping areas that would be generally equivalent to conveying water to a construction site. The calculated water usage was then converted to electricity used for conveyance using default CalEEMod electricity intensity factors for the South Coast Air Basin (SCAQMD, 2017).

Natural Gas

Natural gas is not expected to be consumed in a large quantity during construction of development anticipated by the Proposed Project because construction offices would not be heated with natural gas, and construction equipment and vehicles would be primarily powered by either diesel, gasoline, or electricity. Therefore, natural gas associated with anticipated construction activities was considered negligible.

Transportation Fuels

Transportation fuels would be consumed for transportation of construction workers and materials to and from the Project Site, and operation of construction equipment on the Project Site throughout construction activities.

Fuel consumption from on-site heavy-duty construction equipment was calculated based on the CalEEMod default equipment mix and usage factors provided in the CalEEMod construction output files included in Appendix D of this EIR. Total fuel consumption from Off-road Construction Emissions was calculated multiplying annual GHG emissions by the conversion factor per gallon of diesel fuel.

Fuel consumption from construction on-road worker, vendor, and delivery/haul trucks anticipated by the Proposed Project was calculated using the trip rates and distances consistent with the air quality and GHG emissions modeling worksheets and CalEEMod construction output files. Total VMT for these on-road vehicles were then calculated for each type of construction-related trip and divided by the corresponding county-specific miles per gallon factor using CARB's EMFAC2017 model. The model was used to calculate fuel consumed based on the total annual VMT for each vehicle type. CalEEMod assumed trip lengths were used for worker commutes, vendor and concrete trucks, and haul truck trips. Consistent with CalEEMod, construction worker trips were assumed to include a mix of light duty gasoline automobiles and light-duty gasoline trucks. Construction vendor trucks were assumed to be a mix of medium-heavy-duty and heavy-duty diesel trucks and haul trucks were assumed to be heavy-duty diesel trucks.

*Operational*

Operational energy impacts anticipated by the Proposed Project were assessed based on the increase in energy demand compared to baseline conditions described above under GHG methodology. The following discusses the methodology for existing and new operational activities.

As discussed in more detail under GHG methodology, for all land uses, building electricity and natural gas usage for existing uses were provided by the Southern California Edison and the Southern California Gas Company. Forecasting for future years assumed a growth rate based on buildout for each land use type and increased, or decreased (in the case of light industrial use) the consumption accordingly. GHG emissions also take into account the RPS requirements throughout the planning period.

Mobile source emissions were calculated using VMT data as provided in Chapter 3.12: Traffic and Transportation, which takes into account mode and trip lengths. VMT was provided for 2016, 2030, and 2040. Energy consumption anticipated by the Proposed Project was calculated by multiplying annual GHG emissions by the conversion factor per gallon of gasoline or diesel fuel as appropriate to the vehicle type.

## IMPACTS

### Impact 3.5-1 Implementation of the Proposed Project would not generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment. (*Less than Significant*)

Development anticipated by the Proposed Project could result in a significant impact, if the per capita emissions from the 2030 and 2040 (buildout) years exceed the reduction targets identified in the CAP. The CAP has identified per capita targets to demonstrate the City's compliance with the statewide GHG targets for 2030, as well as, for the 2040 horizon year. The derivation of the applicable targets is discussed in detail in Appendix E. The CAP compared the State GHG Reduction Targets and the State Climate Change Scoping Plan Targets to determine the most conservative option. Compliance with the most conservative emissions threshold (calculated as total $MTCO_2e$) would ensure that the General Plan and resultant projects stemming from its adoption would support the state's long-term emissions reduction goals. The CAP has determined reduction targets of 6 $MTCO_2e$ for 2030 and 4 $MTCO_2e$ for 2040.

*Construction and Operation GHG Emissions*

Construction and operational activities anticipated by the Proposed Project may emit GHGs that could, in combination with other regional and global emissions, result in an increase in $CO_2e$ emissions that may result in changes in local and global climate. The following emissions were calculated for the potential construction and operation of the City at the Proposed Project's buildout. Table 3.5-5 shows these emissions on an amortized annual basis. Based on SCAQMD methodology, construction emissions are added to operational emissions to determine a total annual emissions inventory from the City.

**Table 3.5-5: Annual Construction GHG Emissions**

| *Phase* | *$MTCO_2e$* |
|---|---|
| Demolition | 635 |
| Single-Family Residential & Park | 7,809 |
| Multi-Family Residential | 17,099 |
| Non-Residential | 17,363 |
| **TOTAL Project (20 years of construction)** | 42,905 |
| **Amortized (30 year) Emissions** | 1,430 |

*Source: ESA, 2019 (Appendix D).*

Table 3.5-6 shows the forecasted GHG emissions for 2030 and 2040 compared to their respective emissions targets, assuming implementation of State and local actions, the Proposed Project's land use and circulation elements, and the Proposed Project's policies. As discussed below, the CAP recommends measures to further reduce GHG emissions but implementation of these measures is not required. Table 3.5-6 also assumes the potential full-buildout of the Proposed Project by 2040 and conservatively assumes the maximum associated annual construction emissions. Therefore, if

build-out levels are less than anticipated, City emissions would be reduced from the estimates provided in the analysis.

**Table 3.5-6: Annual Diamond Bar GHG Emissions**

| *Sector* | *2030 $MTCO_2e$* | *2040 $MTCO_2e$* |
|---|---|---|
| Residential | 45,251 | 40,655 |
| Commercial | 26,383 | 30,242 |
| Industrial | 118 | 106 |
| Transportation | 171,489 | 168,154 |
| Solid Waste | 6,714 | 7,124 |
| Water | 743 | 820 |
| Wastewater | 617 | 682 |
| Off-Road Equipment | 2,441 | 2,811 |
| Public Lighting | 453 | 480 |
| Total Operational | **254,209** | **251,074** |
| Amortized Construction | 1,430 | 1,430 |
| **Total Emissions** | **255,612** | **252,504** |
| Population | 62,852 | 66,685 |
| Per Capita Emissions | 4.06 | 3.79 |
| **Target** | 6 | 4 |
| **Exceed Target** | No | No |

*Sources: ESA, 2019 (Appendix D); Dyett & Bhatia, 2019 (Appendix E).*

The CAFE Standards, AB 1493, LCFS, and CARB's Advanced Clean Car Program will reduce impacts from future transportation throughout the City by increasing fuel efficiency of vehicles and promoting the use of Zero-Emission vehicles. Sustainable Communities and Climate Protection Act of 2008 requires the regional reduction in VMTs, which will reduce mobile emissions generations from the City. SB 1078 and SB 350 will reduce impacts from energy consumption by requiring electrical providers to use renewable resources for up to 50 percent of the electrical generation by 2030. California Building Standards Code, the City's Green Building Code, LA County's Renewable Energy Ordinance, and LA County's Green Building Programs would increase energy efficiencies and reduce waste from anticipated development by the Proposed Project. Proposed General Plan policies, as detailed below, will enhance the regulatory policies of the State in order to provide reductions specific to the City with respect to mobile sources and energy consumption.

Given that the Proposed Project would be able to meet emissions targets with implementation of the proposed General Plan policies, the proposed CAP provides recommended, but not mandatory, measures to further reduce emissions. Following the adoption of the Proposed Project, the City of Diamond Bar may choose to implement these measures. Therefore, this EIR does not take into account potential reductions from CAP policies (see Appendix E for a detailed explanation). As the CAP is designed for the reduction of greenhouse gas emissions and climate change protection, policies recommended in the CAP would not cause any adverse effects on GHG emissions, and

would further reduce emissions if adopted. Recommended measures include installation of residential and commercial photovoltaic systems, establishing a zero-waste framework, increasing opportunities for zero-emissions travel, and establishing clean power partnerships. Implementation of these measures would reduce consumption of natural gas and increase access to renewable power, therefore reducing GHG emissions associated with natural gas consumption in homes, businesses, and vehicles in Diamond Bar.

Implementation of the Proposed Project's policies aimed at resource conservation and VMT reduction would reduce overall GHG emissions compared to existing conditions and would ensure that the City's 2030 and 2040 levels of GHG emissions would not exceed the respective emissions targets. Therefore, the Proposed Project would not generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment and the Proposed Project would have a less than significant impact.

*Conversion of Oak and Walnut Woodland*

The development anticipated by the Proposed Project has the potential to convert oak woodland to developed areas. While the majority of Oak Woodland is located in the Sphere of Influence to the south of the City, which has no plans for conversion to new types of uses, there are some acres of oak woodland in the northern portion of the City in the Planning Area south of Diamond Ranch High School and in the City to the east of the Planning Area, and in the areas surveyed as Walnut Woodland (see Section 3.3 – Biological Resources for more details on the Walnut Woodland survey area). Because the amount of oak woodland that would be converted, when it would be converted, or the amount of oak woodland that would be replaced is unknown, the quantification of emissions from conversion would be speculative and therefore, was not included in the emissions calculations. However, according to US EPA, for every acre of forest removed, an average of 0.85 $MTCO_2$ sequestration is lost (US EPA, 2018). For urban trees planted, average annual sequestration is 0.06 $MTCO_2$ per tree planted (US EPA, 2018).

The Proposed Project's policies require that all new developments preserve mature native trees including oak under the Diamond Bar Tree Preservation and Protection Ordinance. Additionally, Mitigation Measures BIO-4 and BIO-5 (discussed in Chapter 3.3: Biological Resources) would require future projects that cannot avoid impacts on oak and walnut woodland to follow mitigation requirements set forth in the Los Angeles County Oak Woodland Conservation Management Plan Guide. These include, but are not limited to, acquiring comparable oak and walnut woodland habitat, restoring degraded oak and walnut woodlands either on-site or off-site, locating mitigation areas adjacent to preserved natural space, placing mitigation areas in a conservation easement, and monitoring and reporting project mitigation through a report submitted to the City. Therefore, the potential conversion of oak and walnut woodland during anticipated development under the Proposed Project is minimal.

*Proposed General Plan Policies that Address the Impact*

Land Use & Economic Development

LU-G-4 Locate new residential growth in or adjacent to mixed-use centers and transit stations to support regional and statewide efforts to encourage sustainable land use planning and smart growth.

LU-G-9 Provide for the concentration of office and commercial uses near regional access routes, transit stations, and existing and proposed employment centers.

LU-P-17 Require that site designs create active street frontages and introduce pedestrian-scaled street networks and street designs.

LU-P-49 Require convenient, attractive, and safe pedestrian, bicycle, and transit connections both within the Community Core area and between the center and surrounding neighborhoods and other destinations within Diamond Bar.

Circulation

CR-P-6 Require that all new development study the impact of Vehicle Miles Traveled (VMT) and implement congestion mitigation measures to ensure that new projects do not significantly increase local city congestion based on defined Levels of Service (LOS) standards.

CR-P-55 Incorporate common bicycle parking requirements for appropriate uses— including multifamily residential and office—in the Municipal Code.

CR-P-56 Establish requirements to provide dedicated parking and charging stations for Electric Vehicles.

CR-P-32 Provide pedestrian and bicycle connectivity in existing residential neighborhoods, utility easements, and/or flood control channels, including connections through cul-de-sacs to other streets or community facilities where feasible.

CR-P-33 Ensure that new development integrates with Diamond Bar's bicycle and pedestrian networks by requiring developers to provide sidewalks and bicycle infrastructure on local streets.

Resource Conservation

RC-P-10 Require new development to preserve mature native trees including oak and walnut, and trees of significant cultural or historical value such as sycamore, and arroyo willow, etc., as set forth under the Diamond Bar Tree Preservation and Protection Ordinance.

RC-P-19 Require new development to reduce the waste of potable water through the use of drought-tolerant plants, efficient landscape design and application, and reclaimed water systems. *(Based on current GP Resource Management Strategy 2.1.3)*

RC-P-20 Require the implementation of the latest water conservation technologies into new developments.

RC-P-21 Require builders to provide information to prospective buyers or tenants within the City of Diamond Bar regarding drought-tolerant planting concepts.

RC-P-22 Require the use of mulch in landscape areas to improve the water holding capacity of the soil by reducing evaporation and soil compaction in accordance with the standards set forth by state law and the City's Water-Efficient Landscape Ordinance.

RC-P-28. Encourage new development to minimize impacts on air quality through the following measures:

a. Use of building materials and methods that minimize air pollution.
b. Use of fuel-efficient heating equipment, and other appliances, such as water heaters, swimming pool heaters, cooking equipment, refrigerators, furnaces, boiler units, and low or zero-emitting architectural coatings.
c. Use of clean air technology beyond what is required by South Coast Air Quality Management District (SCAQMD), leveraging State and local funding sources.

<u>Community Health & Sustainability</u>

CHS-P-3 Promote physical activity and active transportation programs through events sponsored by the City, particularly the Parks & Recreation Department.

CHS-P-4 Remove barriers and improve multi-modal mobility throughout the City for all community members by supporting transit, pedestrian, and bicycle connections between residential neighborhoods and major destinations, including parks, civic facilities, school campuses, other educational institutions, employment centers, shopping destinations, parks, and recreation areas, where appropriate.

CHS-P-5 Implement street design features that facilitate walking and biking in both new and established areas. Require a minimum standard of these features for all new developments.

CHS-P-14 Develop and incorporate "destinations"—such as the clusters of commercial uses that draw residents from the entire community into the Neighborhood Mixed Use, the Transit-Oriented Mixed Use, and the Town Center focus areas.

CHS-P-15 Establish opportunities for gathering areas in new neighborhoods.

CHS-P-33 Plan land uses to reduce vehicle miles traveled (VMT), prioritizing infill development and incorporating vertical and horizontal mixed-use development, public transit, and active transportation facilities where appropriate, recognizing that the transportation sector is the largest source of GHG emissions in Diamond Bar and in California more broadly.

CHS-P-35 Use the City's CAP as the platform for outlining and implementing measures to improve energy conservation and increase renewable energy use in existing and new development.

CHS-P-38 Accelerate the adoption of rooftop and parking lot solar power and/or other alternative energy usage on developed sites in Diamond Bar through actions such as:

a. Establishing incremental growth goals for solar power/alternative energy systems in Diamond Bar;

b. Developing guidelines, recommendations, and examples for cost-effective solar and/or other alternative energy-based installation; and

c. Installing solar/alternative energy technology on available City spaces.

CHS-P-40 Require the inclusion, where feasible, of provisions for energy-efficient modes of transportation and fixed facilities that establish public transit, bicycle, and pedestrian modes as safe, efficient, and desirable alternatives.

CHS-P-41 Support the use of clean fuel and "climate friendly" vehicles in order to reduce energy use, energy cost, and greenhouse gas emissions by residents, businesses, and City government activities.

CHS-P-44 Promote energy conservation and retrofitting of existing buildings through the implementation of the Green Building Codes.

CHS-P-49 Continue to educate residential, commercial, and industrial generators about source reduction and recycling programs and encourage their participation in these programs through promotional campaigns and incentives.

CHS-P-53 Require commercial and industrial generators to develop and implement a source reduction and recycling plan tailored to their individual waste streams.

CHS-P-55 Protect and enhance areas identified as healthy functioning ecosystems that provide the ecological, cultural, public health and safety, and economic value of ecosystem services, or benefits.

CHS-P-57 Encourage water conservation, drought-tolerant landscaping and the use of greywater and reclaimed and recycled water, where appropriate, with a view to reducing water use.

CHS-P-58 Encourage the installation of green roofs and cool (reflective) roofs to reduce temperatures of roof surfaces and the surrounding air.

*Mitigation Measures*

None required.

### Impact 3.5-2 Implementation of the Proposed Project would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases. (*Less than Significant*)

A significant and unavoidable impact would occur if implementation of the Proposed Project would result in conflicts with regulations adopted for the purpose of reducing GHG emissions. Emissions of GHGs throughout the City may increase as anticipated development by the Proposed Project occurs thereby resulting in more emissions than existing conditions, potentially conflicting with State Goals of reducing GHG emissions.

The General Plan Update and Climate Action Plan are planning documents used by the City to structure the growth and development within the City and its Sphere of Influence. The City's Proposed Project provides policies that are designed specifically to reduce GHG emissions or to reduce other types of pollutants and has the co-benefit of reducing GHG emissions.

The CAP, once adopted, will serve as a Qualified GHG Reduction Strategy, enabling streamlined environmental review of future development projects, in accordance with CEQA. The future emissions inventory for the City of Diamond Bar incorporates reductions from State actions, Proposed Project land use and circulation system, and additional Proposed Project policies. This analysis shows that projected GHG emissions in 2030 and in 2040 will be well below the standards established in the 2017 CARB Scoping Plan. Thus, additional GHG reduction actions are not required for the City of Diamond Bar to have and maintain a Qualified GHG Reduction Strategy.

The Proposed Project's compliance with regulations and policies for the reduction of GHG emissions is discussed below.

<u>Consistency with 2017 Scoping Plan Update</u>

The Proposed Project would be consistent with key state plans and regulatory requirements referenced in the 2017 Scoping Plan Update designed to reduce statewide emissions. According to the 2017 Scoping Plan Update, reductions needed to achieve the 2030 target are expected to be achieved by increasing the RPS to 50 percent of the State's electricity by 2030, greatly increasing the fuel economy of vehicles and the number of zero-emission or hybrid vehicles, reducing the rate of growth in VMT, supporting high speed rail and other alternative transportation options, and increasing the use of high efficiency appliances, water heaters, and HVAC systems. The Proposed Project would not impede implementation of these potential reduction strategies identified by CARB, and it would benefit from statewide and utility-provider efforts towards increasing the portion of electricity provided from renewable resources.[6] The Proposed Project would also benefit from statewide efforts towards increasing the fuel economy standards of vehicles and reducing the carbon content of fuels. The Proposed Project would utilize energy efficient appliances and

[6] With the passage of SB 100, California's RPS has been increased over what is prescribed by the 2017 Scoping Plan Update, requiring retail sellers and local publicly-owned electric utilities to procure eligible renewable electricity for 44 percent of retail sales by the end of 2024, 52 percent by the end of 2027, and 60 percent by the end of 2030; and requires that CARB should plan for 100 percent eligible renewable energy resources and zero-carbon resources by the end of 2045.

equipment, as required by Title 24, and would encourage the establishment of EV charging stations to support the future use of electric and hybrid-electric vehicles by employees and visitors. Additionally, as shown under Impact 3.5-1, the City's 2030 and 2040 GHG emissions would meet the per capita emissions targets. As discussed in the CAP (Appendix E), the 2017 Scoping Plan per capita emissions targets represent the most conservative emissions thresholds for 2030 and 2040. For these reasons described above, the Proposed Project emissions trajectory would decline over time, consistent with the 2017 Scoping Plan Update.

SCAG 2016–40 RTP/SCS

With the Proposed Project, new land use designations such as Town Center Mixed-Use, Neighborhood Mixed-Use, and Transit-Oriented Mixed-Use will be added. These land uses support the development of infill and increase in transit oriented development consistent with the 2016 RTP/SCS.

Goal 6 of the 2016 RTP/SCS aims to improve air quality and encourage active transportation. The incorporation of Mixed-Use and Transit-Oriented development would reduce vehicle trips by providing adequate alternative services. The Proposed Project also encourages bicycle and electrical vehicle parking and the enhancement of bicycle routes. This would reduce VMT per capita through the use of alternative transportation.

Goal 7 of the 2016 RTP/SCS aims to actively encourage and create incentives for energy efficiency. The Proposed Project requires the utilization of energy efficiency appliances and equipment, as required by Title 24, and will develop a requirement for EV charging stations to support the future use of electric and hybrid-electric vehicles throughout the City. In addition, all anticipated development under the Proposed Project would include compliance with CalGreen Code. These actions would be consistent with Goal 7 of the 2016 RTP/SCS.

Executive Order S-3-05

Executive Order No. S-3-05 established a long-term goal of reducing California's GHG emissions to 80 percent below the 1990 level by the year 2050. The extent to which GHG emissions from mobile sources indirectly attributed to the Proposed Project would change in the future depends on the quantity (e.g., number of vehicles, average daily mileage) and quality (i.e., carbon content) of fuel that would be available and required to meet both regulatory standards, and resident and worker needs.

Renewable power requirements, LCFS, and vehicle emissions standards, discussed above, would decrease GHG emissions per unit of energy delivered or per VMT. Due to the uncertainty of technological advancements that could be anticipated over the next 30 years and the unknown parameters of the regulatory framework in 2050, further quantitative analysis of the Proposed Project impacts relative to the 2050 target would be speculative. Section 15145 of the CEQA Guidelines directs that "[i]f, after thorough investigation, a Lead Agency finds that a particular impact is too speculative for evaluation, the agency should note its conclusion and terminate discussion of the impact."

Even though the State has not provided a clear regulatory and technological roadmap to achieve the 2050 goal, it has demonstrated the potential pace at which emission reductions can be achieved through new regulations, technology deployments, and market developments. In developing the 2017 Scoping Plan Update, CARB, CEC, CPUC, and the California Independent System Operator (CAISO) commissioned a study to evaluate the feasibility and cost of meeting the 2030 target along the way to reaching the State goal of reducing GHG emissions to 80% below 1990 levels by 2050. With input from the agencies, the California State Agencies' PATHWAYS Project explores scenarios for meeting the State long term GHG emissions targets, encompassing the entirety of California economy with detailed representations of the buildings, industry, transportation, and electricity sectors (E3, 2015). While acknowledging the inherent uncertainty associated with its modeling assumptions, the PATHWAYS study emphasizes the need for significant action and continued policy development by the State to support low-carbon technologies and markets for energy efficiency, building electrification, renewable electricity, zero-emission vehicles, and renewable liquid fuels. The study underscores the need for a periodic review of State policies and programs for reducing GHG emissions, as was anticipated by AB 32 in its directive to update the Scoping Plan at least every five years.

A 2018 update to the PATHWAYS study advanced the understanding of what is required for technology deployment and other GHG mitigation strategies if California is to meet its long-term climate goals. The 2018 study concludes that to achieve high levels of consumer adoption of zero-carbon technologies, particularly of electric vehicles and energy efficiency and electric heat in buildings, market transformation is needed to reduce the capital cost and to increase the range of options available. This market transformation can be facilitated by 1) higher carbon prices (which can be created by the Cap and Trade and LCFS programs); 2) codes and standards, regulations and direct incentives, to reduce the upfront cost to the customer; and 3) business and policy innovations to make zero-carbon technology options the cheaper, preferred solutions compared to fossil fueled alternatives (E3, 2018).

Statewide efforts are underway to facilitate the achievement of the EO S-3-05 goals. It is reasonable to expect the GHG emissions from development anticipated by the Proposed Project would decline over time, as the regulatory initiatives identified by CARB in the 2017 Scoping Plan Update are implemented, and other technological innovations occur. Given the reasonably anticipated decline in Proposed Project emissions, the Proposed Project would not conflict with or interfere with the ability of the State to achieve the 2050 horizon-year goal of EO S-3-05.

Mobile Source Strategy and Executive Order B-48-18

State goals for ZEVs are expressed in the Advanced Clean Cars Initiative (ACC) and the ZEV mandate established by Executive Order B-16-1, which sets a target of reaching 1.5 million ZEVs (meaning battery electric vehicles and fuel cell electric vehicles) and plug-in hybrid electric vehicles on California's roadways by 2025.

According to EMFAC2017, which incorporates the State ZEV mandate, there will be approximately 31,700,000 passenger cars and light trucks on the road in California by 2030, at which time

1.5 million ZEVs would constitute approximately 4.7 percent of all vehicles.[7] The more aggressive Mobile Source Strategy, included in the 2017 Scoping Plan Update as a component of the overall strategy for achieving the 2030 GHG target, calls for 4.2 million ZEVs on the road by 2030, equivalent to about 13.2% of passenger vehicles and light-duty trucks.

The Proposed Project would be consistent with the State ZEV mandate by encouraging dedicated parking and charging stations for electric vehicles through General Plan policies and the recommended measures under the Climate Action Plan. Neither the General Plan nor the Climate Action Plan mandate specific numbers or locations of ZEV facilities, but would make ZEVs a priority for the City of Diamond Bar.

City of Diamond Bar CAP

The CAP, once adopted, will serve as a Qualified GHG Reduction Strategy, enabling streamlined environmental review of future development projects, in accordance with CEQA. The future emissions inventory for the City of Diamond Bar incorporates reductions from State actions, General Plan land use and circulation system, and additional General Plan policies. This analysis shows that projected GHG emissions in 2030 and in 2040 will be well below the standards established in the 2017 CARB Scoping Plan. Thus, additional GHG reduction actions are not required for the City to have and maintain a Qualified GHG Reduction Strategy. As the Proposed Project is designed in conjunction with the CAP, future development under the General Plan will be held to the requirements in the CAP and therefore the General Plan update will be consistent with the future City of Diamond Bar CAP.

In summary, the Proposed Project would be consistent with policies and regulations established for the reduction of GHG emissions and therefore would result in less than significant impacts.

*Proposed General Plan Policies that Address the Impact*

See policies listed under Impact 3.5-1.

*Mitigation Measures*

None required.

[7] EMFAC2017 estimates the future percentage of the state's ZEVs based on compliance with the State's ZEV mandate. EMFAC2017's forecasted ZEV population for 2030 is approximately 3.6 percent of all passenger and light duty vehicles, but the 3.6 percent figure represents the equivalent percentage of all vehicles operating as a pure zero-emission vehicle (e.g., 100% battery electric), whereas the actual population would include PHEVs that operate partially on fossil fuels.

### Impact 3.5-3 Implementation of the Proposed Project would not cause wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation. (*Less than Significant*)

The development anticipated by the Proposed Project may result in a significant and unavoidable impact if the consumption of energy would exceed the existing supply or would unnecessarily increase the consumption of resources through the use of inefficient equipment or vehicles.

*Construction*

During construction of future development anticipated by the Proposed Project, energy would be consumed in the form of electricity for water conveyance for dust control, and other construction activities. Based on typical construction practices discussed in the Methodology and Assumptions section above, natural gas would not be consumed in any appreciable amount. Project construction would also consume energy in the form of petroleum-based fuels associated with the use of off-road construction vehicles and equipment on the project site, construction workers travel to and from the project site, and delivery and haul truck trips (e.g., hauling of demolition material to offsite reuse and disposal facilities).

Table 3.5-7 provides a summary of potential annual average electricity, natural gas, gasoline fuel, and diesel fuel estimated to be consumed during construction of the development anticipated by the Proposed Project. Each of these energy types is discussed and analyzed in greater detail in the sections below. Note that this is an estimation, given that the Proposed Project does not propose any specific development.

**Table 3.5-7: Construction Energy Use**

| *Energy* | *Project Usage* | *County/Utility Usage* | *Percent State/Utility Use* |
|---|---|---|---|
| Electricity | 199 MWh | 112,159,000 MWh | <0.001% |
| Natural Gas | - MMBtu | 988,785,000 MMBtu | 0.000% |
| Gasoline | 60,061 gallons | 3,659,000,000 gallons | 0.001% |
| Diesel | 170,040 gallons | 590,196,078 gallons | 0.027% |

*Sources: SCE, 2018; California Gas and Electric Utilities, 2018; CEC, 2017b.*

Electricity

During construction of development anticipated by the Proposed Project, electricity would be supplied by SCE and would be obtained from the existing electrical lines that connect to the individual project sites or exist nearby. As shown in Table 3.5-7, annual average construction electricity usage may be approximately 199 MWh. Although there may be a temporary increase in electricity consumption during construction of the development anticipated by the Proposed Project, the electrical consumption would be within the supply and infrastructure capabilities of SCE (112,159 GWh net energy for 2020), representing less than 0.001 percent of SCE's 2020 supply (SCE, 2018). Construction of development anticipated by the Proposed Project is expected to occur throughout buildout of the Proposed Project until 2040. The electricity demand at any given time

would vary throughout the construction period based on the construction activities being performed, and would cease upon completion of construction. Electricity use from construction would be short-term, limited to working hours, used for necessary construction-related activities, and represents a small fraction of the Proposed Project's net annual operational electricity. Furthermore, the electricity used for off-road light construction equipment would have the effect of reducing construction-related air pollutant and GHG emissions from more traditional construction-related energy in the form of diesel fuel. Therefore, under a reasonable worst case scenario, impacts from construction electrical demand would be less than significant and would not result in the wasteful, inefficient, and unnecessary consumption of energy.

Natural Gas

As stated above, construction activities would not consume appreciable amounts of natural gas during construction of anticipated development by the Proposed Project. Therefore, impacts from construction natural gas demand would be less than significant and would not result in the wasteful, inefficient, and unnecessary consumption of energy.

Transportation Energy

Table 3.5-7 reports the amount of petroleum-based transportation energy that could potentially be consumed during construction based on the conservative set of assumptions provided in Appendix D of this Draft EIR. Annual construction on- and off-road vehicles are anticipated to consume approximately 60,061 gallons of gasoline and 170,040 gallons of diesel. For comparison purposes only, and not for the purpose of determining significance, the fuel usage during project construction would represent approximately 0.001 percent of the 2017 annual on-road gasoline-related energy consumption and 0.02 percent of the 2017 annual diesel fuel-related energy consumption in Los Angeles County, as detailed in Appendix D of this EIR.

Transportation fuels (gasoline and diesel) are produced from crude oil, which can be domestic or imported from various regions around the world. Based on current proven reserves, crude oil production would be sufficient to meet over 50 years of worldwide consumption (BP Global, 2018). The Proposed Project would comply with CAFE standards, which would result in more efficient use of transportation fuels (lower consumption). Project-related vehicle trips would also comply with Pavley and LCFS, which are designed to reduce vehicle GHG emissions, but would also result in fuel savings in addition to compliance with CAFE standards.

Construction of development anticipated by the Proposed Project would utilize fuel-efficient equipment consistent with state and federal regulations, such as fuel efficiency regulations in accordance with the CARB Pavley Phase II standards, the anti-idling regulation in accordance with Section 2485 in Title 13 of the CCR, and fuel requirements for stationary equipment in accordance with Section 93115 (concerning Airborne Toxic Control Measures) in Title 17 of the CCR, and would comply with State measures to reduce the inefficient, wasteful, and unnecessary consumption of energy, such as petroleum-based transportation fuels. While these regulations are intended to reduce construction emissions, compliance with the anti-idling and emissions regulations discussed above would also result in fuel savings from the use of more fuel-efficient engines.

Based on the analysis above, construction of development anticipated by the Proposed Project would utilize energy only for necessary on-site activities and to transport construction materials and demolition debris to and from project sites. As discussed above, idling restrictions and the use of cleaner, energy-efficient equipment would result in less fuel combustion and energy consumption and thus minimize the Proposed Project's construction-related energy use. Therefore, even under a reasonable worst case scenario, construction would not result in the wasteful, inefficient, and unnecessary consumption of energy, and the impact would be less than significant.

*Operational*

During operation of development anticipated by the Proposed Project, energy would be consumed for multiple purposes throughout the City, including, but not limited to, heating ventilation, and air conditioning (HVAC), lighting, EV charging, emergency generators, aerial lifts, and forklifts for building operations. Energy would also be consumed during operations related to water usage, solid waste disposal, and vehicle trips.

The Proposed Project's potential operational energy use is shown in Table 3.5-8. As shown in Table 3.5-8, the development anticipated by the Proposed Project annual net new energy demand would be approximately 250,351 MWh of electricity, 750,957 MMBtu of natural gas, 14,412,238 gallons of gasoline, and 5,685,918 gallons of diesel fuel. Each of these is discussed and analyzed in greater detail in the sections below.

**Table 3.5-8: Summary of Annual Energy Use during Project Operation at Buildout**

| *Energy* | *Project Usage* | *County/Utility Usage* | *Percent State/Utility Use* |
|---|---|---|---|
| Electricity | 250,351 MWh | 87,143,000 MWh | 0.287% |
| Natural Gas | 750,957 MMBtu | 988,785,000 MMBtu | 0.076% |
| Gasoline | 14,412,238 gallons | 3,659,000,000 gallons | 0.394% |
| Diesel | 5,685,918 gallons | 590,196,078 gallons | 0.963% |

*Sources: SCE, 2018; California Gas and Electric Utilities, 2018; CEC, 2017b.*

<u>Electricity</u>

Assuming compliance with 2019 Title 24 standards and applicable 2019 CALGreen requirements, at buildout the development anticipated by the Proposed Project would result in an annual demand for electricity totaling approximately 250.351 MWh, as shown in Table 3.5-8. By 2020 SCE is required to procure at least 33 percent of its energy portfolio from renewable sources with 50 percent renewable required by 2030. SCE's current sources include wind, solar, and geothermal sources. These sources accounted for 32 percent of SCE's overall energy mix in 2017, the most recent year for which data are available, and represent the available off-site renewable sources of energy that would meet the Proposed Project's energy demand (CEC, 2017a).

Based on SCE's collected data in its 2018 Annual Report, SCE's total system sales for 2017-2018 fiscal year (the latest data available) was 87,143,000 MWh of electricity (SCE, 2018). As such, potential development anticipated by the Proposed Project may increase annual electricity consumption in the City of Diamond Bar, that would represent approximately 0.27 percent of SCE's

supplied electricity for 2017-2018. Furthermore, SCE's projected energy demand for 2030 (the latest forecasted year available) is estimated at 110,000,000 MWh (CEC, 2018). Future energy use associated with development anticipated by the Proposed Project would represent approximately 0.23 percent of total estimated SCE 2030 sales and would be within SCE's projected electricity supplies (CEC, 2018). As previously described, the Proposed Project incorporates a variety of energy and water conservation measures and features to reduce energy usage and minimize energy demand as evidenced by the Proposed Project's reduced contribution to overall sales between 2018 and 2040. Therefore, with the incorporation of these measures and features, operation of development anticipated by the Proposed Project would not result in the wasteful, inefficient, or unnecessary consumption of electricity, and the impact would be less than significant.

Natural Gas

With compliance with 2019 Title 24 standards and applicable 2016 CALGreen requirements, at buildout, development anticipated by the Proposed Project would generate an estimated annual demand for natural gas totaling approximately 750,957 MMBtu, as shown in Table 3.5-8. SoCalGas accounts for anticipated regional demand based on various factors including growth in employment by economic sector, growth in housing and population, and increasing State goals for reducing GHG emissions. SoCalGas accounts for an increase in employment and housing between 2018 to 2035. Development anticipated by the Proposed Project would add jobs within the SoCalGas region and would be consistent with the growth projections set forth in the 2018 California Gas Report (California Gas and Electric Utilities, 2018).

As shown in Table 3.5-8, development anticipated by the Proposed Project would account for approximately 0.08 percent of the annual consumption in SoCalGas' planning area and would fall within SoCalGas' projected consumption for the area for 2030 and would be consistent with SoCalGas' anticipated regional demand from population or economic growth. Therefore, with the incorporation of these measures and features, operation of the development anticipated by Proposed Project would not result in the wasteful, inefficient, or unnecessary consumption of natural gas, and the impact would be less than significant.

Transportation Energy

Vehicle use may result in the consumption of petroleum-based fuels related to vehicular travel to and from the new land uses anticipated within the City. Annual trips for the Proposed Project were estimated using trip rates provided in Chapter 3.12: Transportation. As discussed in that section, VMT is expected to increase compared to baseline conditions, therefore resulting in a significant and unavoidable impact with respect to CEQA Guidelines section 15064.3, subdivision (b). However, policies within the General Plan Circulation element which the regional travel demand model is not sensitive to (such as connectivity in neighborhoods, presence of bicycle and pedestrian facilities, and transportation demand management measures) are not reflected in these estimates, which are thus conservative estimates. Proposed policies which would reduce overall VMT and consumption of transportation-related energy are listed below.

As reported in Table 3.5-7, the Proposed Project's estimated annual petroleum-based fuel usage would be approximately 14,412,283 gallons of gasoline and 5,682,918 gallons of diesel. Based on the California Energy Commission's California Annual Retail Fuel Outlet Report, residents and

employees in Los Angeles County consumed 3,659,000,000 gallons of gasoline and approximately 590,200,000 gallons of diesel fuel in 2017 (CEC, 2017b). The Proposed Project may account for 0.002 percent of County-wide gasoline consumption and 0.03 percent of County-wide diesel consumption, based on the available County fuel sales data for the year 2017.

Transportation fuels (gasoline and diesel) are produced from crude oil, which can be domestic or imported from various regions around the world. Based on current proven reserves, crude oil production would be sufficient to meet over 50 years of worldwide consumption (BP, 2018). The transportation anticipated by the Proposed Project would comply with CAFE fuel economy standards, which would result in more efficient use of transportation fuels (lower consumption). Project-related vehicle trips would also comply with Pavley and Low Carbon Fuel Standards which are designed to reduce vehicle GHG emissions, but would also result in fuel savings in addition to compliance with CAFE standards.

Development anticipated by the Proposed Project would support statewide efforts to improve transportation energy efficiency and reduce transportation energy consumption with respect to private vehicle use. The Proposed Project design and characteristics would be consistent with and would not conflict with the goals of the SCAG 2016 RTP/SCS. As discussed under Impact 3.5-2, the mixed-use design of the Proposed Project would increase the density of an infill site served by a variety of transit options. The City of Diamond Bar is served by Foothill Transit. The City is also served by the Metrolink Riverside Line along the northwestern boundary of the City. This line runs from Downtown Riverside to Union Station in Downtown Los Angeles, and provides service Monday to Friday. Transit facilities in Diamond Bar consist of bus stops for Foothill Transit buses along Diamond Bar Boulevard, Golden Springs Drive, and other roads. OCTA bus stops are on Brea Canyon Road. The Metrolink station can be accessed via Brea Canyon Road. A significant portion of the bus stops and station in the City have a bench or a shaded bus shelter.

While development anticipated by the Proposed Project may increase VMT over existing conditions, the development of mixed-use land uses will provide close proximity of residents to retail, restaurant, entertainment, commercial, and job destinations support achievement of reductions in VMT that are not reflected in the regional travel demand model. Additionally, the Proposed Project's Policies will establish requirements to provide dedicated parking and charging stations for Electric Vehicles. Projects designed under the Proposed Project would provide for the installation of the conduit and panel capacity to accommodate future electric vehicle charging stations pursuant to the CALGreen Code, reducing the amount of fossil fuel consumed during vehicular travel to and from the Proposed Project.

<u>City of Diamond Bar CAP</u>

The CAP, once adopted, will serve as a Qualified GHG Reduction Strategy, enabling streamlined environmental review of future development projects, in accordance with CEQA. The future emissions inventory for the City of Diamond Bar incorporates reductions from State actions, General Plan land use and circulation system, and additional General Plan policies. This analysis shows that projected GHG emissions in 2030 and in 2040 will be well below the standards established in the 2017 CARB Scoping Plan. Thus, additional GHG reduction actions are not required for the City to have and maintain a Qualified GHG Reduction Strategy.

For the reasons described above, the Proposed Project would minimize operational transportation fuel demand consistent with and not in conflict with state, regional, and City goals. Therefore, operation of the Proposed Project would not result in the wasteful, inefficient, and unnecessary consumption of energy and the impact would be less than significant.

*Proposed General Plan Policies that Address the Impact*

Land Use & Economic Development

LU-G-4 Locate new residential growth in or adjacent to mixed-use centers and transit stations to support regional and statewide efforts to encourage sustainable land use planning and smart growth.

LU-G-9 Provide for the concentration of office and commercial uses near regional access routes, transit stations, and existing and proposed employment centers.

LU-G-12 Encourage compact mixed-use developments and projects that are walkable, designed to encourage community interaction, and fulfill a diversity of local commercial, employment, housing and recreational needs.

Circulation

CR-G-1 Improve the operating efficiency of the transportation system by reducing vehicle travel demand and providing opportunities for other modes of travel. Before approving roadway improvements that focus on increasing vehicle capacity, consider alternatives that reduce vehicle volumes and prioritize projects that would reduce single-occupancy vehicle use and greenhouse gas emissions while minimizing disruption to the environment and established neighborhoods due to transportation projects

CR-G-2 Maintain a street classification system that considers the broad role of streets as corridors for movement, but also reflects a Complete Streets concept that enables safe, comfortable, and attractive access for pedestrians, bicyclists, motorists, and transit users of all ages and abilities, in a form that is compatible with and complementary to adjacent land uses, including neighborhood schools.

CR-G-3 Strive to achieve a finer grained network of streets and pedestrian/bicycle connections as development occurs, especially in pedestrian- and transit-oriented areas such as the Transit Oriented, Neighborhood, Town Center, and Community Core Overlay mixed-use areas.

CR-G-4 Develop neighborhood streets and alleys that encourage walking, biking, and outdoor activity through engineering and urban design principles that reduce the potential for speeding and cut-through traffic, which may include traffic calming measures.

CR-G-5 Track the use of future transportation options such as Transportation Network Companies (TNCs), ride sharing, and autonomous vehicles (AVs), and adjust City

requirements, such as roadway design or parking standards as needed to ensure safety and access for all users and modes.

CR-G-7 Encourage reduction in vehicle miles traveled (VMT) as part of a strategy to reduce greenhouse gas emissions.

CR-G-9 Provide adequate parking for all land use types, while balancing this against the need to promote walkable, mixed-use districts and neighborhoods in targeted areas, and promoting ride-sharing and alternative transportation modes.

CR-P-1 When redesigning streets, plan for the needs of different modes, such as by including shade for pedestrians, lighting at the pedestrian scale, signage visible to relevant modes, transit amenities, etc.

CR-P-2 Require that new street designs and efforts to retrofit existing streets in residential neighborhoods minimize traffic volumes and/or speed as appropriate without compromising connectivity for emergency vehicles, bicycles, pedestrians, and users of mobility devices.

CR-P-3 Plan for and provide new connections within the Transit Oriented, Neighborhood, Town Center, and Community Core Overlay mixed-use areas to create finer grained, pedestrian-scaled circulation networks that support the development of connected and accessible neighborhoods. Connections should facilitate the use of alternatives to single-occupancy vehicles, such as walking, bicycling, and transit by improving the safety and accessibility of those modes.

Examples include connections that incorporate protected bike lanes, pedestrian crossings, public shuttle services, and bike and pedestrian trails that link to parks and other public facilities. *See chapter 7: Community Character and Placemaking Element for more detailed policies related to designing for connectivity in mixed-use development areas.*

CR-P-6 Require that all new development study the impact of Vehicle Miles Traveled (VMT) and implement congestion mitigation measures to ensure that new projects do not significantly increase local city congestion based on defined Levels of Service (LOS) standards.

CR-P-12 Balance meeting LOS standards with the need to reduce VMT through maintaining and supporting multimodal connectivity such as transit, bicycling, and walking, by encouraging infill development with a pedestrian-friendly urban design character that has appropriate densities.

CR-P-24 Coordinate with local, regional, and State agencies to encourage and support programs that reduce vehicle miles traveled, such as preferential carpool and car share parking, parking pricing, on-site childcare, flexible work schedules, subsidized transit passes, and ridesharing.

CR-P-25 Encourage participation in transportation demand programs, such as those promoting walking, cycling, and transit, through the use of City publications and public displays in order to decrease use of single occupancy vehicles.

CR-P-53 Update parking requirements in the Municipal Code to ensure that they are reflective of the community's needs, using current data on parking demand and taking into consideration demographics and access to alternative modes of transportation.

CR-P-57 Incentivize the provision of preferential parking for high occupancy vehicles to encourage carpooling.

CR-P-54 Adopt criteria in the Development Code as part of the comprehensive update to allow reductions in parking requirements in exchange for VMT reduction measures.

CR-P-55 Incorporate common bicycle parking requirements for appropriate uses— including multifamily residential and office—in the Municipal Code.

CR-P-59 Work with Caltrans to evaluate existing Caltrans-operated park-n-ride facilities within the City and expand the facilities where necessary.

CR-P-56 Establish requirements to provide dedicated parking and charging stations for Electric Vehicles.

CR-P-32 Provide pedestrian and bicycle connectivity in existing residential neighborhoods, utility easements, and/or flood control channels, including connections through cul-de-sacs to other streets or community facilities where feasible.

CR-P-33 Ensure that new development integrates with Diamond Bar's bicycle and pedestrian networks by requiring developers to provide sidewalks and bicycle infrastructure on local streets.

CR-P-49 Create additional pedestrian, bus, and bikeway connections to the Metrolink station to address first/last mile connectivity and make it easier to travel to between the station and surrounding neighborhoods.

CR-P-67 Ensure that trucks do not interfere with cyclist or pedestrian activity by:

- Incorporating off-street or buffered bike lanes and walking paths where truck routes overlap with bicycle routes or streets with heavy pedestrian traffic; and
- Designing driveways and curb cuts to avoid maneuvering on sidewalks or in street traffic, while also facilitating the safe and efficient movement of trucks.

<u>Resource Conservation</u>

RC-P-28. Encourage new development to minimize impacts on air quality through the following measures:

a. Use of building materials and methods that minimize air pollution.

b. Use of fuel-efficient heating equipment, and other appliances, such as water heaters, swimming pool heaters, cooking equipment, refrigerators, furnaces, boiler units, and low or zero-emitting architectural coatings.
c. Use of clean air technology beyond what is required by South Coast Air Quality Management District (SCAQMD), leveraging State and local funding sources.

Community Health & Sustainability

CHS-P-3 Promote physical activity and active transportation programs through events sponsored by the City, particularly the Parks & Recreation Department.

CHS-P-4 Remove barriers and improve multi-modal mobility throughout the City for all community members by supporting transit, pedestrian, and bicycle connections between residential neighborhoods and major destinations, including parks, civic facilities, school campuses, other educational institutions, employment centers, shopping destinations, parks, and recreation areas, where appropriate.

CHS-P-5 Implement street design features that facilitate walking and biking in both new and established areas. Require a minimum standard of these features for all new developments.

CHS-P-14 Develop and incorporate "destinations"—such as the clusters of commercial uses that draw residents from the entire community into the Neighborhood Mixed Use, the Transit-Oriented Mixed Use, and the Town Center focus areas.

CHS-P-15 Establish opportunities for gathering areas in new neighborhoods.

CHS-P-33 Plan land uses to reduce vehicle miles traveled (VMT), prioritizing infill development and incorporating vertical and horizontal mixed-use development, public transit, and active transportation facilities where appropriate, recognizing that the transportation sector is the largest source of GHG emissions in Diamond Bar and in California more broadly.

CHS-P-35 Use the City's CAP as the platform for outlining and implementing measures to improve energy conservation and increase renewable energy use in existing and new development.

CHS-P-38 Accelerate the adoption of rooftop and parking lot solar power and/or other alternative energy usage on developed sites in Diamond Bar through actions.

CHS-P-40 Require the inclusion, where feasible, of provisions for energy-efficient modes of transportation and fixed facilities that establish public transit, bicycle, and pedestrian modes as safe, efficient, and desirable alternatives.

CHS-P-41 Support the use of clean fuel and "climate friendly" vehicles in order to reduce energy use, energy cost, and greenhouse gas emissions by residents, businesses, and City government activities.

CHS-P-44 Promote energy conservation and retrofitting of existing buildings through the implementation of the Green Building Codes.

CHS-P-58 Encourage the installation of green roofs and cool (reflective) roofs to reduce temperatures of roof surfaces and the surrounding air.

*Mitigation Measures*

None required.

### Impact 3.5-4 Implementation of the Proposed Project would not conflict with or obstruct a State or local plan for renewable energy or energy efficiency. (*Less than Significant*)

The Proposed Project would result in a significant environmental impact if it would result in conflicts with regulations adopted for the purpose of increasing renewable energy and energy efficiency. Energy consumption throughout the City may increase as development anticipated by the Proposed Project occurs, therefore, resulting in more consumption than existing conditions and has the potential to conflict with State Goals of reducing GHG emissions.

The Proposed Project is a planning document used by the City to structure the growth and development within the City and its SOI. The City's Proposed Project provides policies that are designed specifically to reduce energy consumption or to reduce other types of pollutants and has the co-benefit of reducing energy consumption. The Proposed Project's compliance with regulations and policies for the reduction of GHG emissions is discussed below.

CALGreen Code and Title 24

The Proposed Project does not propose development of any specific projects and therefore does not identify project-specific green building strategies. However, development anticipated by the Proposed Project would be designed in a manner that is consistent with relevant energy conservation plans that encourage efficient use of energy resources. The Proposed Project would comply with CALGreen and Title 24 requirements to reduce energy consumption by implementing energy efficient building designs, reducing indoor and outdoor water demand, providing EV charging spaces, and installing energy-efficient appliances and equipment. As a result, the Proposed Project's impacts would be considered less than significant.

SCAG 2016-2040 RTP/SCS

As discussed in impact 3.5-2, the Proposed Project would be consistent with the 2016-2040 RTP/SCS. SCAG's 2016-2040 RTP/SCS is designed to support development of compact communities in existing urban areas, with more mixed-use and infill development, and reuse of developed land that is also served by high quality transit. The 2016-2040 RTP/SCS describes how the region can attain the GHG emission-reduction targets set by CARB by reducing VMT to achieve an 8 percent reduction in passenger vehicle emissions by 2020, 18 percent reduction by 2035, and 21 percent reduction by 2040 compared to the 2005 level on a per capita basis. Impact 3.5-2, details the features incorporated into the Proposed Project to reduce vehicle trips, resulting in less gasoline

and diesel fuel use. As discussed implementation of State and local actions, General Plan land use and circulation elements, and proposed General Plan policies would reduce transportation-related emissions by 21 percent between 2016 and 2040 (242,007 $MTCO_2e$ and 168,154 $MTCO_2e$, respectively).

Overall, the Proposed Project would be consistent with the goals and policies of SCAG's 2016-40 RTP/SCS by supporting reduction in transportation-related emissions. Although the 2016-2040 RTP/SCS is not technically an energy efficiency plan, consistency with the RTP/SCS has energy implications (such as the reduction of VMT and thereby fuel energy consumed), including proposed General Plan policies aimed at reducing per capita VMT, which subsequently reduces GHG emissions and reduces fossil fuel consumption from travel. Therefore, the impact would be less than significant.

City of Diamond Bar CAP

The CAP, once adopted, will serve as a Qualified GHG Reduction Strategy, enabling streamlined environmental review of future development projects, in accordance with CEQA. The future emissions inventory for the City of Diamond Bar incorporates reductions from State actions, General Plan land use and circulation system, and additional General Plan policies. This analysis shows that projected GHG emissions in 2030 and in 2040 will be well below the standards established in the 2017 CARB Scoping Plan. Thus, additional GHG reduction actions are not required for the City to have and maintain a Qualified GHG Reduction Strategy.

In summary, the Proposed Project would incorporate project design features and policies such that it would be consistent with applicable plans, policies and regulations adopted for the purpose of promoting renewable energy and overall energy efficiency. Therefore, the impacts from the Proposed Project would be less than significant.

### *Proposed General Plan Policies that Address the Impact*

See policies listed under Impact 3.5-3.

### *Mitigation Measures*

None required.

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# 3.6 Geology, Soils, Seismicity, and Paleontology

This section describes existing soils and geologic conditions, including geologic and seismic hazards, in the Planning Area; applicable regulatory framework regarding geology, soils, and seismicity; and the potential geologic, soils, and seismic impacts of future development in the community in accordance with the Proposed Project. This section also addresses paleontological resources.

There were four comments on the Notice of Preparation (NOP) regarding topics covered in this section. Those comments included the following topics specific to Geology, Soils, and Seismicity.

- Save Tres Hermanos stated that Diamond Bar's landslide status and seismic risk may increase if sensitive areas like Tres Hermanos are developed.
- A member of Hills for Everyone requested that the General Plan and EIR address earthquake faults within or near the City, known and/or historic landslides, known or potential locations for liquefaction, alteration of landforms, site contaminants within or near the City, reduction of the wildland-urban interface, new development in High or Very High Fire Hazard Severity Zones.
- The Pomona Valley Sierra Club Task Force requested that specific geographic qualities be denoted in the EIR, such as the Planning Area's location in the Puente Hills, Peninsular Ranges, and San Dimas/Yorba Linda Quadrangles.
- The Pomona Valley Sierra Club Task Force also requested that the EIR thoroughly discuss how human safety and hillside natural infrastructure will be preserved under the Proposed Project given the findings of the USGS Deep Landslide Susceptibility assessment.

## Environmental Setting

### PHYSICAL SETTING

#### Geological and Paleontological Setting

The Planning Area is located in the Los Angeles Basin approximately 27 miles east of Downtown Los Angeles. The Planning Area is situated in the Puente Hills, along the Southern California coast and within the Southern California Mountains and Valleys ecoregion. The city consists of a series of interconnected valleys and rolling hills ranging in elevation from 500 to 1,470 feet.

The Planning Area is in the northern tip of the Peninsular Range province, a well-defined geologic unit that extends 975 miles from the Traverse Ranges geomorphic province to the tip of Baja California (Richard & Jahns, 1954). The province varies in width from about 30 to 100 miles and is bound on the west by the Pacific Ocean and on the east by the Colorado Desert Province. This province is described by a southeast to northwest structural grain that is best illustrated by a series of faults connected with the San Andreas fault system, consisting of the Whittier fault and the Newport-Inglewood fault in the Los Angeles basin, and by northwest-trending folds, made up of the Santa Ana Mountains and the Puente and Coyote Hills.

## Local Geographic Setting

The Plan Area is located mostly in the Yorba Linda Quadrangle and has its northern part in the San Dimas Quadrangle. The Plan Area is mantled with a thin to relatively thick layer of colluvial/alluvial materials, varying from approximately five to twenty feet in thickness. These materials are generally described as dark gray-brown, damp to moist, porous, silty clay to clayey silt. The colluvial/alluvial soils are susceptible to moderate consolidation and settlement (NMG 2018).

Hillsides and steep slopes are the main geological feature throughout the Planning Area, as shown in Figure 3.6-1: Steep Slopes. The Planning Area has Hillside Management Areas (HMAs), mountainous or foothill terrain with a natural slope of 25 percent or greater, as identified in the Los Angeles County's General Plan (Los Angeles County, 2014). Diamond Bar Boulevard runs through the bottom of the valley and eventually becomes Brea Canyon. Residential developments overlook the boulevard on both sides of the surrounding hills. The Sphere of Influence (SOI) includes Significant Ecological Areas (SEAs), the Firestone Scout Reserve, to the south of the City. There are no significant bodies of water within the Planning Area.

## Geology

### *Soils*

Diamond Bar is underlain by several thousand feet of sediments which were laid down over the last 25 million years. Quaternary alluvial deposits cover approximately 35 percent of the Yorba Linda quadrangle (California Geological Survey, 2005). Bedrock materials are not well consolidated and consist of various sandstones, shales, and siltstones. Stream-carried (alluvial) materials are present in the natural canyons while fill is found in developed areas. Natural sediments are described as being composed mainly of clayey silt, silty fine-grained sand, fine- to medium-grained sand, and loam, generally loose to moderately dense. Local soils are mainly derived from weathering of the bedrock units (City of Diamond Bar, 1995). Soil types within the Plan Area are shown in Figure 3.6-2 Soil Types.

### *Expansive Soils*

Expansive soils have shrink-swell capacity, meaning they may swell when wetted and shrink when dried. Expansive soils can be a hazard for built structures, and may cause cracks in building foundations, distortion of structural elements, and the warping of doors and windows. The higher the clay content of a soil, the higher its shrink-swell potential. Soils in the Planning Area, including

Altamont Clay Loam and Yolo Clay Loam, have moderate to high clay content, and therefore have a moderate shrink-swell potential.

Expansive soil conditions are pervasive in the City, and well-documented in geotechnical reports. Copper re-piping is a common home repair in Diamond Bar. Although some soil movement is unavoidable over time, solutions can be engineered to established factors of safety. Subdivisions, primarily in The County Estates, do have Restricted Use Areas (RUAs) recorded on the maps for areas, usually back slopes, that were not evaluated for constructability.

### *Subsidence and Differential Settlement*

Subsidence occurs when a large portion of land is displaced or compressed vertically. This typically is due to human activities, the withdrawal of groundwater, oil, or natural gas. The Planning Area is located on the San Gabriel Basin, which is an unconfined aquifer, where the groundwater is not separated from the ground surface by an impermeable geological boundary (LADPW, 2005). Instead, the groundwater flows through the porous alluvium soils. Subsidence is more likely to occur in soils with high clay content, such as the Altamont Clay Loam and Yolo Clay Loam soils located along the hillsides in the Planning Area.

Differential Settlement occurs when the soil beneath a structure expands, contracts, or shifts the building's foundation, causing unequal settlement and can result in structural damage.

## Seismic and Geologic Hazards

### *Seismic Conditions*

The Los Angeles Basin is located in a seismically active region of Southern California and is surrounded by fault systems. A fault is classified as active if it has moved during Holocene time (within the last 11,000 years); potentially active if it has moved within Quaternary time (within the last 1.8 million years); or inactive if it has not moved in the last 1.8 million years. Surface displacement can be recognized by the presence of cliffs in alluvium, terraces, offset stream courses, fault troughs and saddles, the alignment of depressions, and the existence of steep mountain fronts.

While the Planning Area is located in a seismically active region, there are no active faults within its boundaries and it is not situated within an Alquist-Priolo Earthquake Fault Zone. The geologic structure of the entire southern California area is dominated mainly by northwest-trending faults associated with the San Andreas system, which is located 26 miles northeast of the Planning Area, and is considered to have the greatest potential to cause regional damage. However, there are four potentially active local faults, Whittier, San Jose, Central Avenue and Walnut Creek, that have a higher potential for causing local damage (Figure 3.6-3: Regional Faults).

The Whittier-Elsinore fault, which is classified as an Alquist-Priolo Earthquake Fault Zone, is the closest active fault to the Planning Area, located a couple miles south of the SOI. It is a right-lateral strike-slip fault and has an estimated slip rate between 2.5 and 3.0 mm/yr. Its estimated length is 25 miles. The most recent surface rupture occurred in the Holocene Epoch. Historical activity has been limited to microseismicity and several Magnitude 4 or less events. The Whittier-Elsinore fault is considered capable of producing an earthquake with a magnitude between 6.0 and 7.2 (SGRCMP,

2005). The San Jose fault passes north of the Planning Area, and at its closest point is approximately two miles from the Planning Area. The Central Avenue and Walnut Creek faults are smaller in scale and are located within 5 miles to the north-east and north-west of the Planning Area respectively.

Seismic hazards that can potentially affect the Planning Area are dependent on the type and magnitude, the distance to the epicenter of the earthquake, the nature of the fault on which the earthquake is located, and the intensity and magnitude of the seismic event.

### *Groundshaking and Fault Rupture*

Groundshaking can be caused by activity along faults in the broader region. Effects of groundshaking can vary depending on the magnitude of the earthquake, distance from the fault, depth, and type of geologic material. Areas that are underlain by bedrock tend to experience less ground shaking than those underlain by unconsolidated sediments such as artificial fill or unconsolidated alluvial fill. Severe groundshaking can result in damage to or collapse of buildings and other structures. Surface rupture is the breaking of the ground along a fault during an earthquake and is primarily a risk for areas overlying active faults. As there are no active faults in the Planning Area, risk of surface rupture is low.

### *Landsliding and Slope Stability*

Landslides, also referred to as slope failures, is a general term for a falling, sliding, or flowing mass of soil, rocks, water and debris. They can either be triggered by static (i.e., gravity) or dynamic (i.e., earthquake) forces. Exposed rock slopes may undergo rockfalls, rockslides, or rock avalanches, while soil slopes may experience shallow soil slides, rapid debris flows, and deep-seated rotational slides. They can destroy the roads, buildings, utilities, and other critical facilities necessary to respond to and recover from an earthquake.

Landslide-susceptible areas are characterized by steep slopes, downslope creep of surface materials, and unstable soil conditions. On slopes greater than 30 percent, these soils are subject to rapid runoff and present moderate to high erosion hazards. Landslides are more likely to occur during the wet season and in areas of high groundwater and saturated soils, or in post-wildfire areas. Earthquake-induced landslide zones encompass more than 35 percent of the Yorba Linda Quadrangle because the hilly terrain has relatively low rock strength (California Geological Survey, 2005).

Steep slopes are common throughout the Planning Area, in areas designated for development and nearby residential land uses. Diamond Bar has a high likelihood of encountering such risks, especially in areas with steep slopes. Managing erosion and landslide hazards will involve approaches that help residents and decision-makers understand the particular potential risks facing individual projects and pursuing mitigation to reduce risks to an acceptable level.

### *Liquefaction*

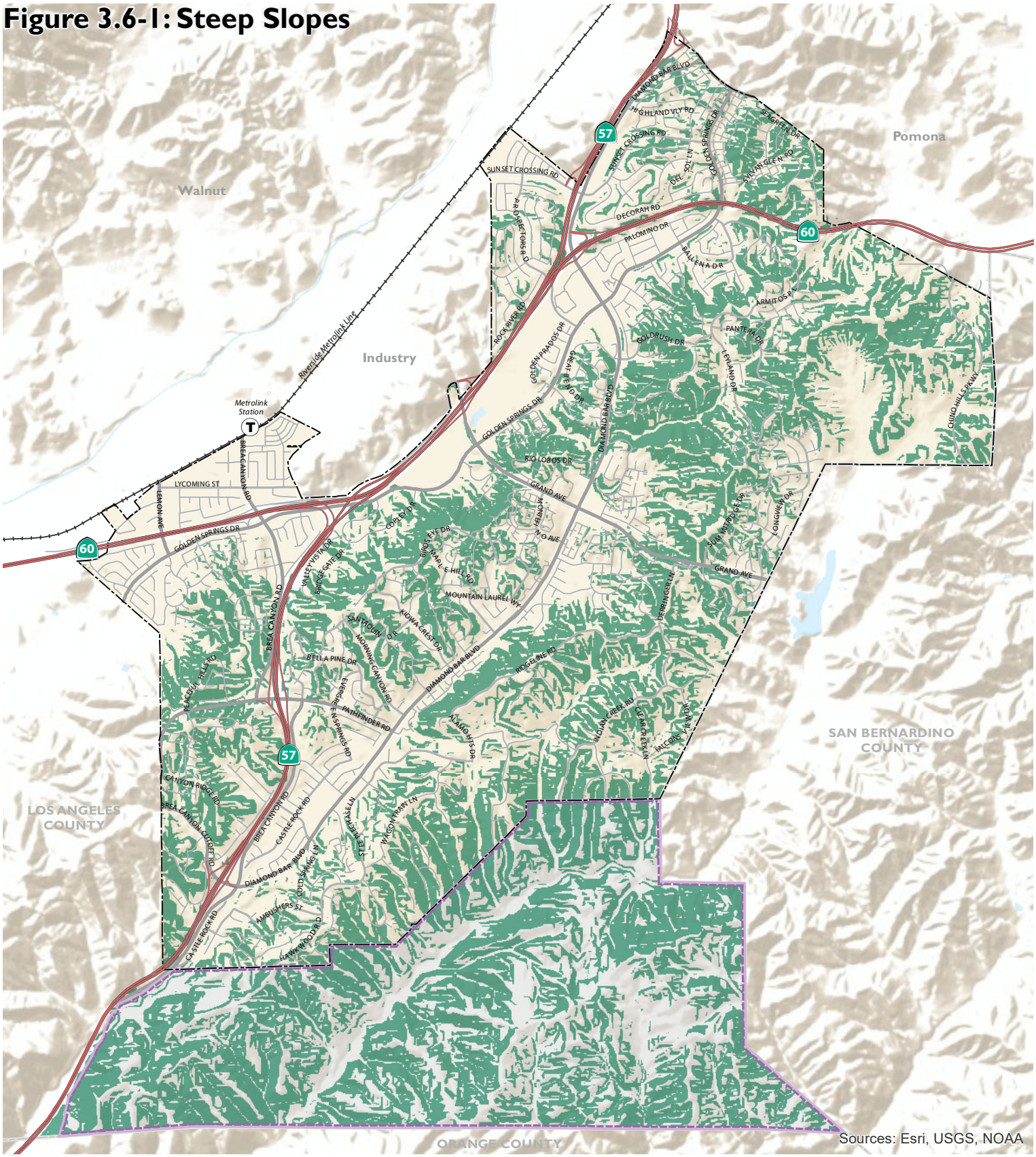
Liquefaction occurs when ground shaking causes wet granular soils to change from a solid state to a liquid state. This results in the loss of soil strength and the soil's ability to support weight. Buildings and their occupants are at risk when the ground can no longer support these buildings and structures. Geologic units that are generally susceptible to liquefaction include late Quaternary alluvial and fluvial sedimentary deposits and artificial fill. Three conditions must be met for liquefaction to occur. The first condition is strong ground shaking of relatively long duration. The second is the presence of loose, or unconsolidated, recently deposited sediments consisting primarily of silt and sand. The third condition is water-saturated sediments within about 50 feet of the surface.

Liquefaction has been a major cause of earthquake damage in Southern California. According to Map 5-8 of the Los Angeles County All Hazard Mitigation Plan, the valley and town of Diamond Bar is a liquefaction zone (OEM, 2014). Mitigation options for liquefaction include: strengthening structures to resist predicted ground movement, selecting appropriate foundation type and depth (or modifying existing foundational structures) that may extend below a zone of liquefiable soil, and stabilizing soil to minimize or eliminate the potential for liquefaction (EERI, 1994). Liquefaction and landslide hazards are shown in Figure 3.6-4.

### *Lateral Spreading*

Lateral spreads involve lateral displacement of gently sloping, saturated soil masses as a result of earthquake induced liquefaction. The magnitude of lateral spreading displacement depends on earthquake magnitude, distance between the site and the seismic event, thickness of the liquefied layer, ground slope, average particle size of the materials comprising the liquefied layer, and the standard penetration rates of the materials. Because portions of the Planning Area consist of slopes and are underlain by mostly alluvial and fine soils, there is a potential for lateral spreading. Mitigation includes hillside management techniques as well as such options described in the above liquefaction section.

# Figure 3.6-1: Steep Slopes




Sources: Esri, USGS, NOAA

Slopes over 30 Percent

Highways

Ramps

Major Roads

Local Roads

Railroads

Water Features

City of Diamond Bar

Sphere of Influence

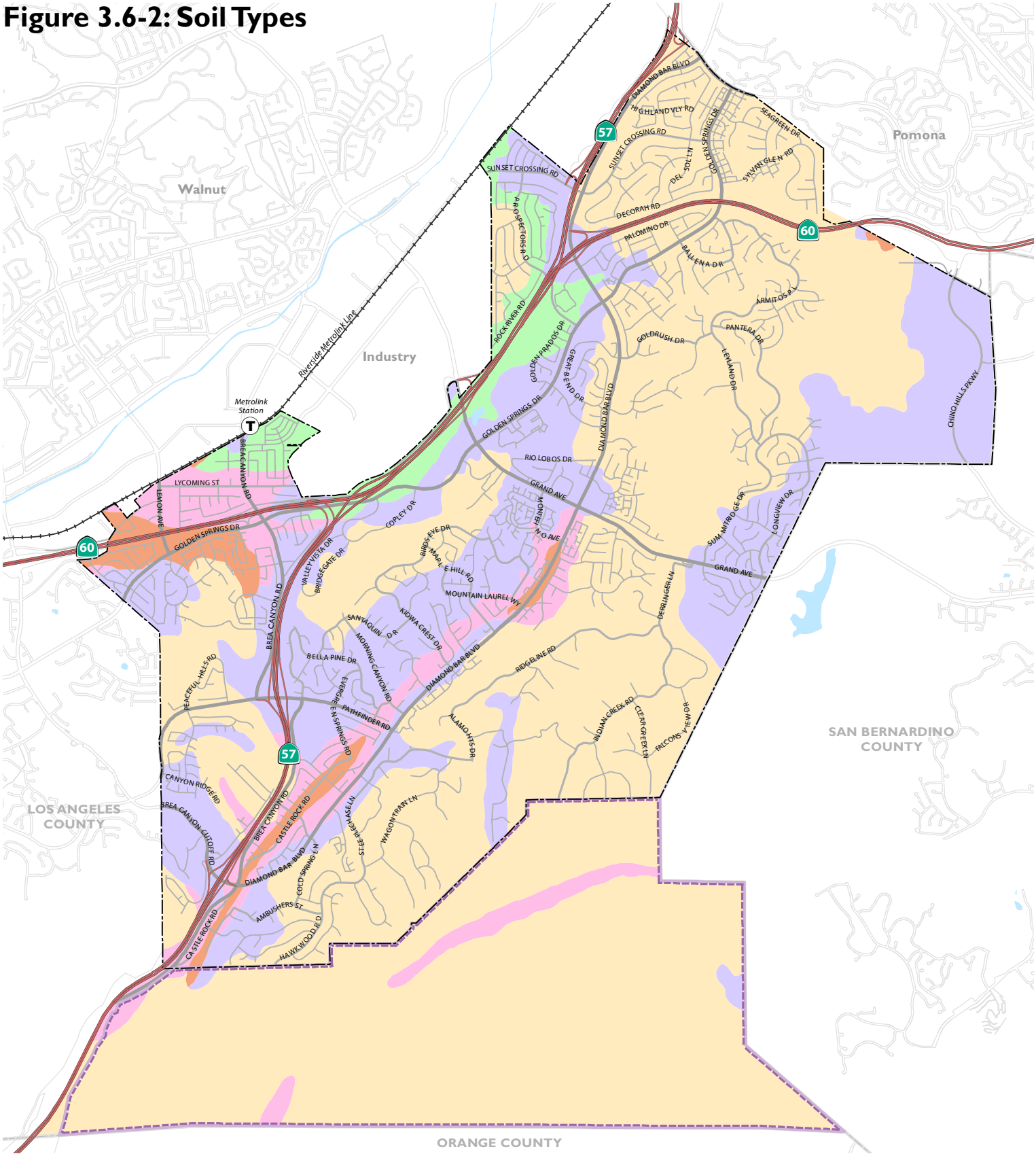
County Boundary

*Source: Los Angeles County GIS Data Portal, 2016; Natural Resources Conservation Service, USDA, 2016; City of Diamond Bar, 2019; Dyett & Bhatia, 2019*

0 0.375 0.75 1.5

MILES

# Figure 3.6-2: Soil Types



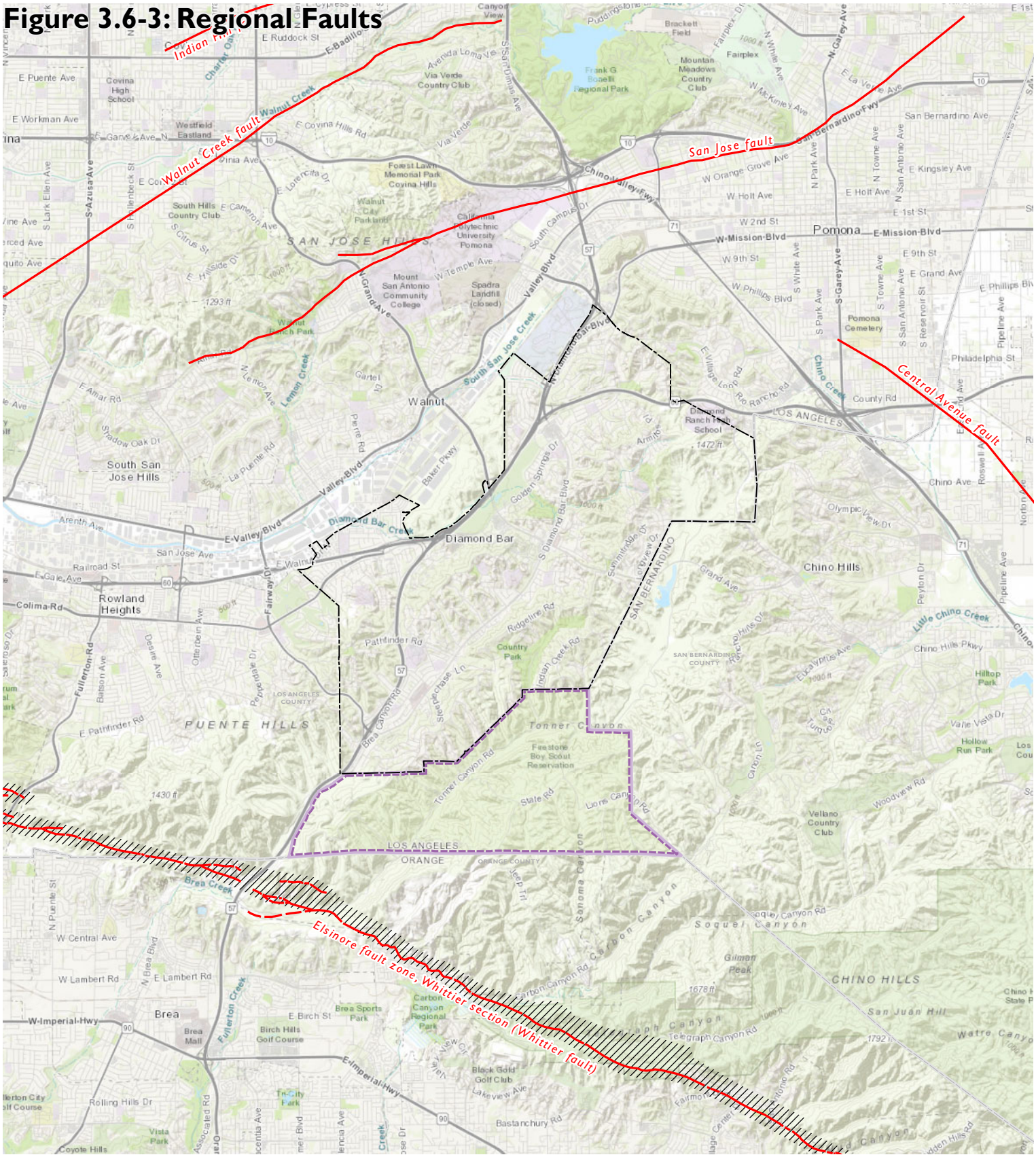

- Altamont Clay Loam (A)
- Chino Silt Loam (CS-1)
- Upper San Gabriel River (USGR-Y)
- Yolo Clay Loam (YC)
- Yolo Loam (Y)
- Highways
- Ramps
- Major Roads
- Local Roads
- Railroads
- Water Features
- City of Diamond Bar
- Sphere of Influence
- County Boundary

*Source: City of Diamond Bar, 2016; Los Angeles County GIS Data Portal, 2016; Natural Resources Conservation Service, USDA, 2016;*

0 0.375 0.75 1.5
MILES

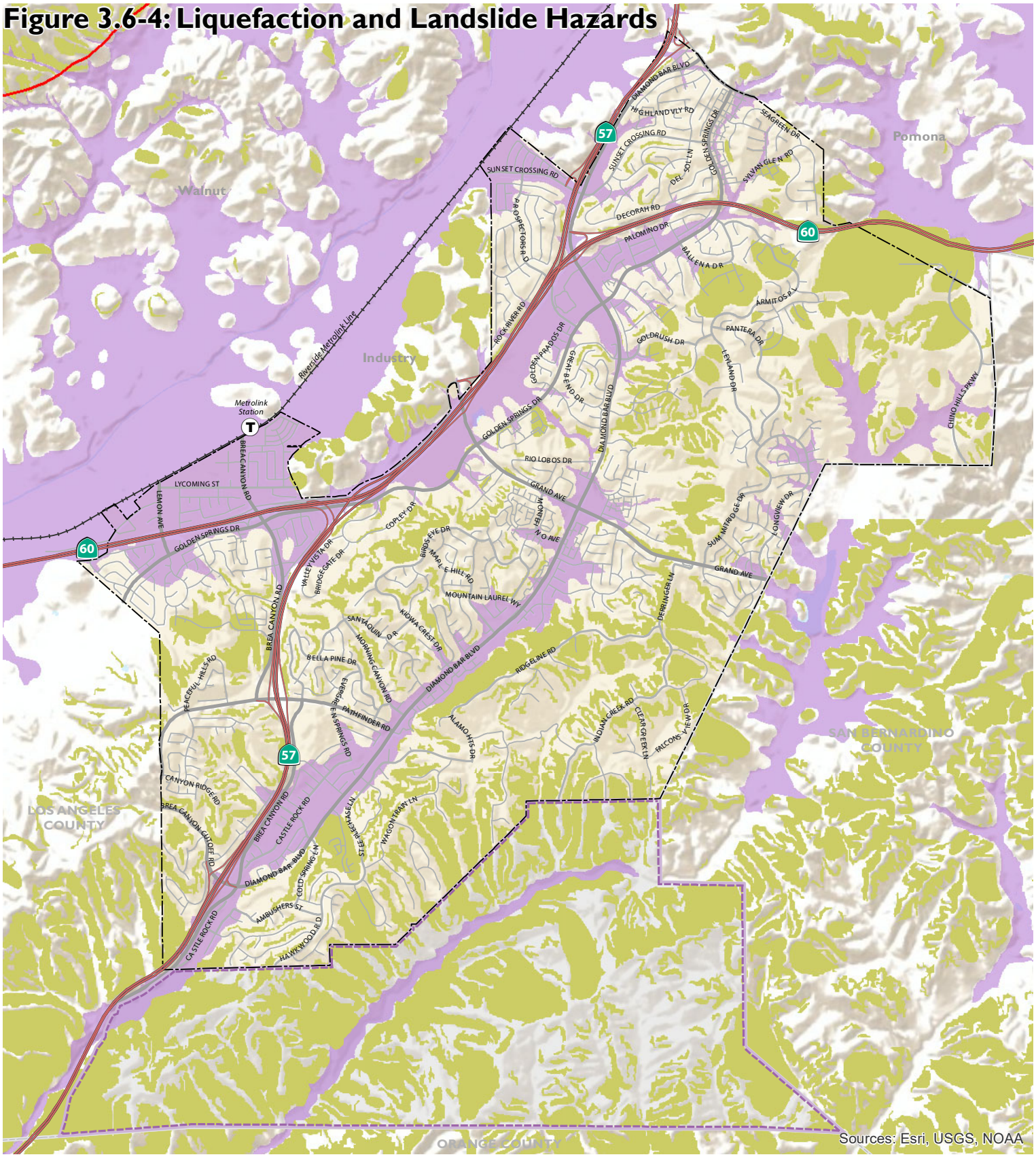
DYETT & BHATIA
Urban and Regional Planners

# Figure 3.6-3: Regional Faults




*Source: Esri, 2019; California Geological Survey (CGS), 2018; City of Diamond Bar, 2019; Dyett & Bhatia, 2019*

# Figure 3.6-4: Liquefaction and Landslide Hazards




Sources: Esri, USGS, NOAA

**Seismic Hazard Zones**

- Fault Line
- Liquefaction Zones
- Earthquake Induced Landslide Zones
- Highways
- Ramps
- Major Roads
- Local Roads
- Railroads
- Water Features
- City of Diamond Bar
- Sphere of Influence
- County Boundary

Liquefaction Zones: Areas where historical occurrence of liquefaction, or local geological, geotechnical and ground water conditions indicate a potential for permanent ground displacements such that mitigation as defined in Public Resources Code Section 2693(c) would be required.

Landslide Zones: Areas where previous occurrence of landslide movement, or local topographic, geological, geotechnical and subsurface water conditions indicate a potential for permanent ground displacements such that mitigation as defined in Public Resources Code Section 2693(c) would be required.

*Source: Seismic Hazard Zones, Earthquake Zones of Required Investigation, 199, California Geological Survey (CGS), California Department of Conservation (DOC); Los Angeles County GIS Data Portal, 2016; City of Diamond Bar, 2019; Dyett & Bhatia, 2019*

0 0.35 0.7 1.4
MILES

## Paleontological Resources

A paleontological resources records search was conducted by the Natural History Museum of Los Angeles County on October 12, 2016. The results of the paleontological records search indicated that one vertebrate fossil locality exists within the city limits and that several other localities from the same sedimentary deposits occur nearby (McLeod, 2016).

Portions of the Planning Area with low lying terrain (such as Brea Canyon and San Jose Creek) consist of younger Quaternary Alluvium derived from drainages, which are not known to contain significant vertebrate fossils in the uppermost layers. However, at shallow depths there are older sedimentary deposits that have the potential to yield significant vertebrate fossils. Elevated portions of the Planning Area (Puente Hills) have exposures of the marine late Miocene Puente Formation (also referred to as the Monterey Formation), which has produced significant fossil vertebrates.

The closest vertebrate fossil locality from older Quaternary Alluvium deposits is LACM 8014, located southwest of the intersection of SR-60 and SR-71 (approximately one-half mile east of the northeastern boundary of the city), which yielded a fossil specimen of bison from unknown depths. Another locality from these same deposits is LACM 1728, located east of the central portion of the city (exact location unknown), which yielded fossil specimens of a horse and camel at a depth of 15 to 20 feet below surface.

The Puente/Monterey Formation has yielded fauna of fossil fish including deep sea smelts, lantern fish, jacks and herrings (LACM 7190) within the southwestern boundaries of the city (southwest of the intersection of SR-60 and SR-57). Other localities from the Puente/Monterey Formation also exist outside the city limits (LACM 7153, 6171, 5837, 6170 and 7490-7492). LACM 7153 (located approximately 1.5 miles west of the northernmost portion of the city) yielded many specimens of fossil pipefish. LACM 6171 (located approximately 3 miles northwest of the city's boundaries in the San Jose Hills) yielded a fossil fish specimen of herring. LACM 5837 and LACM 6170 (located approximately 2.5 miles from the mid-western boundaries of the city) yielded fossil fish specimens of scad and oilfish. LACM 7490-7492 (located approximately 2.5 miles east of the east-central boundaries of the city) yielded a suite of marine fish including deep sea smelt, scad, herrings, croaker, mackerel and snake mackerel.

# REGULATORY SETTING

## Federal Regulations

### *U.S. Geological Survey Landslide Hazard Program*

The United States Geological Survey (USGS) created the Landslide Hazard Program in the mid-1970s; the primary objective of the program is to reduce long-term losses from landslide hazards by improving our understanding of the causes of ground failure and suggesting mitigation strategies. The federal government takes the lead role in funding and conducting this research, whereas the reduction of losses due to geologic hazards is primarily a state and local responsibility. In Los Angeles County, plans and programs designed for the protection of life and property are coordinated by the Los Angeles County Office of Emergency Management.

### *Earthquake Hazards Reduction Act*

The Earthquake Hazards Reduction Act was enacted in 1977 to "reduce the risks to life and property from future earthquakes in the United States through the establishment and maintenance of an effective earthquake hazards and reduction program." To accomplish this, the Act established the National Earthquake Hazards Reduction Program (NEHRP). This program was last amended in 2004 by NEHRP.

NEHRP's mission includes improved understanding, characterization, and prediction of hazards and vulnerabilities; improvement of building codes and land use practices; risk reduction through post-earthquake investigations and education; development and improvement of design and construction techniques; improvement of mitigation capacity; and accelerated application of research results. The NEHRP designates the National Institute of Standards and Technology (NIST) as the lead agency of the program. As lead agency, it develops, evaluates, and tests earthquake resistant design and construction practices for implementation in the building codes and engineering practice. Under NEHRP, the Federal Emergency Management Agency (FEMA) is responsible for developing earthquake risk reduction tools and promoting their implementation, as well as supporting the development of disaster-resistant building codes and standards. USGS monitors seismic activity, provides earthquake hazard assessments, and conducts and supports targeted research on earthquake causes and effects. Programs under NEHRP help inform and guide planning and building code requirements such as emergency evacuation responsibilities and seismic code standards.

### *Disaster Mitigation Act of 2000*

The Disaster Mitigation Act of 2000 (DMA2K) (Public Law 106-390) amended the Robert T. Stafford Disaster Relief and Emergency Assistance Act of 1988 to establish a Pre-Disaster Mitigation (PDM) program and new requirements for the federal post-disaster Hazard Mitigation Grant Program (HMGP). DMA2K encourages and rewards local and state pre-disaster planning. It promotes sustainability and seeks to integrate state and local planning with an overall goal of strengthening statewide hazard mitigation. This enhanced planning approach enables local, tribal, and state governments to identify specific strategies for reducing probable impacts of natural hazards such as floods, fire, and earthquakes. In order to be eligible for hazard mitigation funding

after November 1, 2004, local governments are required to develop a Hazard Mitigation Plan that incorporates specific program elements of the DMA2K law.

### *Antiquities Act*

Federal regulations regarding paleontological resources are generally applicable to a project if that project includes federally owned or federally managed lands or involves a federal agency license, permit, approval, or funding. The Antiquities Act of 1906 (54 U.S.C. 320301-320303 and 18 U.S.C. 1866(b)) requires protection of historic landmarks, historic and prehistoric structures, as well as other objects of historic or scientific interest on federally administered lands, the latter of which would include fossils. The Antiquities Act establishes a permit system for the disturbance of any object of antiquity on federal land and also sets criminal sanctions for violation of these requirements. In 1958, the Federal-Aid Highways Act of 1958 extended the Antiquities Act to specifically apply to paleontological resources.

### *National Environmental Policy Act (NEPA)*

The National Environmental Policy Act (NEPA) requires the consideration of important natural aspects of national heritage when assessing the environmental impacts of a project (P.L. 91-190, 31 Stat. 852, 42 U.S.C. 4321-4327).

### *Federal Land Policy Management Act*

The Federal Land Policy Management Act of 1976 (P.L. 94-579; 90 Stat. 2743, U.S.C. 1701-1782) requires that public lands be managed in a manner that will protect the quality of their scientific values. Under the Federal Land Management Policy Act of 1976, Federal land management agencies are given the authority and the mandate to protect public resources, including those of scientific value. These resources include fossilized paleontological specimens.

### *Code of Federal Regulations, Title 40*

Title 40: Protection of Environment is the section of the CFR that deals with EPA's mission of protecting human health and the environment. Title 40 Code of Federal Regulations (C.F.R.) Section 1508.2 identifies paleontological resources as a subset of scientific resources.

### *Paleontological Resources Preservation Act (PRPA)*

The Paleontological Resources Preservation Act (Title VI, Subtitle D of the Omnibus Land Management Act of 2009) furthers the protection of paleontological resources on federal lands by criminalizing the unauthorized removal of fossils. PRPA addresses the management, collection, and curation of paleontological resources from federal lands using scientific principles and expertise, including collection in accordance with permits; curation in an approved repository; and maintenance of confidentiality of specific locality data. PRPA authorizes civil and criminal penalties for illegal collecting, damaging, otherwise altering or defacing, or for selling paleontological resources, and the proposed rule further details the processes related to the civil penalties, including hearing requests and appeals of the violation or the amount of the civil penalties.

## State Regulations

### *California Multi-Hazard Mitigation Plan*

The State of California Multi-Hazard Mitigation Plan, also known as the State Hazard Mitigation Plan (SHMP), was approved by FEMA in 2013. The SHMP outlines present and planned activities to address natural hazards. The adoption of the SHMP qualifies the State of California for federal funds in the event of a disaster. The State is required under the Disaster Mitigation Act of 2000, described above, to review and update its SHMP and resubmit for FEMA approval at least once every five (5) years to ensure the continued eligibility for federal funding. The SHMP provides goals and strategies which address minimization of risks associated with natural hazards and response to disaster situations. The SHMP notes that the primary sources of losses in the State of California are fire and flooding.

### *California Building Standards Code*

The California Building Standards Commission is responsible for coordinating, managing, adopting, and approving building codes in California. The State of California provides minimum standards for building design through the California Building Standards Code (CBC) (California Code of Regulations Title 24). Where no other building codes apply, Chapter 18 and Appendix J of the CBC regulates excavation, foundations, and retaining walls. The CBC applies to building design and construction in the state and is based on the International Building Code (IBC) used widely throughout the country (generally adopted on a state-by-state or district-by-district basis). The IBC has been modified for California conditions with numerous more detailed or more stringent regulations.

The State earthquake protection law (California Health and Safety Code Section 19100 et seq.) requires that structures be designed to resist stresses produced by lateral forces caused by wind and earthquakes. The CBC requires an evaluation of seismic design that falls into Categories A through F (where F requires the most earthquake-resistant design) for structures designed for a project site. The CBC philosophy focuses on "collapse prevention", meaning that structures are designed for prevention of collapse for the maximum level of groundshaking that could reasonably be expected to occur at a site. Chapter 16 of the CBC and the American Society of Civil Engineers Publication 7-10 (ASCE7-10) specifies exactly how each seismic design category is to be determined on a site-specific basis through the site-specific soil characteristics and proximity to potential seismic hazards.

Chapter 18 of the CBC regulates the excavation of foundations and retaining walls. This chapter regulates the preparation of a preliminary soil report, engineering geologic report, geotechnical report, and supplemental ground-response report. Chapter 18 also regulates analysis of expansive soils and the determination of the depth to groundwater table. For Seismic Design Category C, Chapter 18 requires analysis of slope instability, liquefaction, and surface rupture attributable to faulting or lateral spreading. For Seismic Design Categories D, E, and F, Chapter 18 requires these same analyses plus an evaluation of lateral pressures on basement and retaining walls, liquefaction and soil strength loss, and lateral movement or reduction in foundation soil-bearing capacity. It also requires mitigation measures to be considered in structural design. Mitigation measures may include ground stabilization, selection of appropriate foundation type and depths, selection of

appropriate structural systems to accommodate anticipated displacements, or any combination of these measures. The potential for liquefaction and soil strength loss must be evaluated for site-specific peak ground acceleration magnitudes and source characteristics consistent with the design earthquake ground motions. Peak ground acceleration must be determined from a site-specific study, the contents of which are specified in CBC Chapter 18 and through the California Division of Mines and Geology.

Finally, Appendix Chapter J of the CBC regulates grading activities, including drainage and erosion control and construction on unstable soils, such as expansive soils and areas subject to liquefaction.

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

The Alquist-Priolo Earthquake Fault Zoning Act was passed in 1972 to mitigate the hazard of surface faulting to structures used for human occupancy. The main purpose of the law is to prevent the construction of buildings used for human occupancy on top of active faults. The law only addresses the hazard of surface fault rupture and is not directed toward other earthquake hazards, such as groundshaking or landslides.

The law requires the State Geologist to establish regulatory zones (known as Earthquake Fault Zones or Alquist-Priolo Zones) around the surface traces of active faults, and to issue appropriate maps. As discussed in the Physical Setting section, there are no active faults in the Planning Area, and therefore no designated Alquist-Priolo fault zones.

### *Hospital Facilities Seismic Safety Act of 1973*

The Alfred E. Alquist Hospital Facilities Seismic Safety Act (HSSA) was passed in 1973 to ensure that hospitals in California conform to high construction standards and are reasonably capable of providing services to the public after a disaster. The HSSA requires the establishment of rigorous seismic design regulations for hospital buildings and requires that new hospitals and additions to hospitals have the capacity, as far as is practical, to remain functional after a major earthquake. State law requires that all existing hospital buildings providing general acute care as licensed under provisions of Section 1250 of the California Health and Safety Code be in compliance with the intent of the HSSA by the year 2030.

### *California Department of Transportation (Caltrans)*

Jurisdiction of the California Department of Transportation (Caltrans) includes State and interstate routes within California. Any work within the right-of-way of a federal or State transportation corridor is subject to Caltrans regulations governing allowable actions and modifications to the right-of-way. Caltrans standards incorporate the California Building Code, and contain numerous rules and regulations to protect the public from seismic hazards such as surface fault rupture and groundshaking. In addition, Caltrans standards require that projects be constructed to minimize potential hazards associated with cut and fill operations, grading, slope instability, and expansive or corrosive soils, as described in the Caltrans Highway Design Manual (HDM).

### *National Pollution Discharge Elimination System Permits*

In California, the State Water Resources Control Board (SWRCB) and its Regional Water Quality Control Board (RWQCB) administer the National Pollution Discharge Elimination System (NPDES) program. The NPDES permit system was established as part of the Federal Clean Water Act to regulate both point source discharges and non-point source discharges to surface water of the United States, including the discharge of soils eroded from construction sites.

The NPDES program consists of characterizing receiving water quality, identifying harmful constituents (including siltation), targeting potential sources of pollutants (including excavation and grading operations), and implementing a comprehensive stormwater management program. Construction and industrial activities typically are regulated under statewide general permits that are issued by the SWRCB. Additionally, the SWRCB issues Water Discharge Requirements that also serve as NPDES permits under the authority delegated to the RWQCBs, under the Clean Water Act. See Section 3.8: Hydrology and Water Quality, for more information about the NPDES.

### *Public Resources Code Section 5097.5 and Section 30244*

Requirements for paleontological resource management are included in Public Resources Code Section 5097.5 and Section 30244. These statutes prohibit the removal of any paleontological site or feature from public lands without permission of the jurisdictional agency, define the removal of paleontological sites or features as a misdemeanor, and require reasonable mitigation of adverse impacts on paleontological resources from developments on public (state, county, city, district) lands.

## Regional Regulations

### *South Coast Air Quality Management District Rules and Regulations*

Several SCAQMD rules, adopted to implement portions of the 2012 and 2016 AQMPs, may apply to the Proposed Project. The Proposed Project may be subject to the following SCAQMD rules and regulations:

**Regulation IV – Prohibitions:** This regulation sets forth the restrictions for visible emissions, odor nuisance, fugitive dust, various air emissions, fuel contaminants, start-up/shutdown exemptions and breakdown events. The following is a list of rules which apply to the Proposed Project:

- ***Rule 401 – Visible Emissions***: Rule 401 states that a person shall not discharge into the atmosphere from any single source of emission whatsoever any air contaminant for a period or periods aggregating more than three minutes in any one hour which is as dark or darker in shade as that designated No. 1 on the Ringelmann Chart or of such opacity as to obscure an observer's view.
- ***Rule 402 – Nuisance:*** Rule 402 states that a person shall not discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health or safety of any such persons or the public,

or which cause, or have a natural tendency to cause, injury or damage to business or property.

- ***Rule 403 – Fugitive Dust:*** Rule 403 requires projects to prevent, reduce or mitigate fugitive dust emissions from a site. Rule 403 restricts visible fugitive dust to a project property line, restricts the net PM10 emissions to less than 50 micrograms per cubic meter (μg/m3) and restricts the tracking out of bulk materials onto public roads. Additionally, projects must utilize one or more of the best available control measures, which may include adding freeboard to haul vehicles, covering loose material on haul vehicles, watering, using chemical stabilizers and/or ceasing all activities.

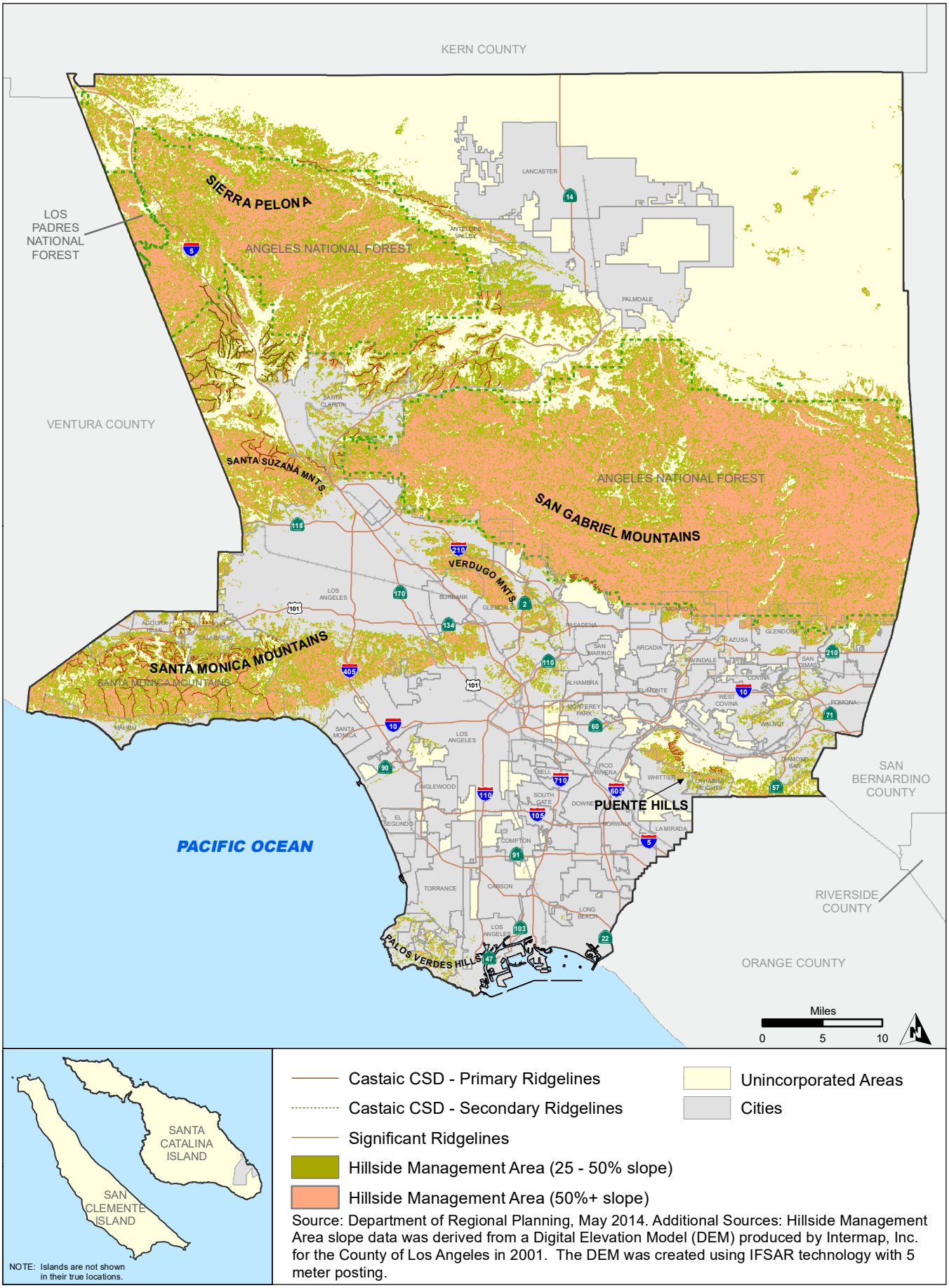
*LA County General Plan*

These elements govern the SOI, as is it within unincorporated Los Angeles County.

Safety Element

The Safety Element addresses several potential hazards in Los Angeles County, including seismic and geologic hazards. Goals of this element are to prevent loss of life and reduce property damage as a result of natural disasters, and to minimize the effects of hazardous conditions. Policy Three states that development should mitigate geotechnical hazards, such as soil instability and landsliding, in Hillside Management Areas. Hillside Management Areas occur throughout the Planning Area, primarily in the unincorporated territory falling within Diamond Bar's SOI and, within city limits, in two lines running from the southwest to northeast edges of the City. Hillside Management Areas are depicted in Figure 3.6-5, below. Policy Four supports efforts to retrofit masonry structures to help reduce the risk of structural and human loss in seismic hazards.

# Figure 3.6-5: Hillside Management Areas




*Source: Dyett & Bhatia, 2019*

Hillside Management Ordinance

The County recognizes that one aspect of scenic resource are Hillside Management Areas (HMAs), which are mountainous or foothill terrain with a natural slope of 25 percent or greater. Hillside development land use activities that may result in environmental degradation are subject to regulations and design guidelines for impacts affecting, but not limited to, slope, soil erosion, natural drainage channels, and seismic and fire hazards. The purpose of the Hillside Management Ordinance in Title 22 of the County Code is to regulate development within Hillside Management Areas to 1) protect the public from natural hazards associated with steep hillsides, and 2) to minimize the effects of development and grading on the scenic resources.

The HMA Ordinance allows clustering development at the base of the slope, limits grading, and ensures that the drainage configuration remains as natural as possible and will not adversely impact offsite property. Hillside design guidelines are referenced during the pre-development and permit processing phases to minimize hillside alteration, conserve ridgeline silhouettes, determine traffic circulation and building placement by topography, and incorporate trails where appropriate. By imposing these design conditions, a more sensitive development will occur in hillsides in a manner that respects the natural topography and biological resources of the area.

Conservation and Natural Resources Element

The Conservation and Natural Resources Element of the County's General Plan indicates that "Historic, cultural, and paleontological resources are an important part of Los Angeles County's identity". This element provides the following goal and policies for the treatment of paleontological resources, which would apply to unincorporated lands in the Planning Area:

- **Goal C/NR 14:** Protected historic, cultural, and paleontological resources.
- **Policy C/NR 14.1:** Mitigate all impacts from new development on or adjacent to historic, cultural, and paleontological resources to the greatest extent feasible.
- **Policy C/NR 14.2:** Support an inter-jurisdictional collaborative system that protects and enhances historic, cultural, and paleontological resources.
- **Policy C/NR 14.5:** Promote public awareness of historic, cultural, and paleontological resources.
- **Policy C/NR 14.6:** Ensure proper notification and recovery processes are carried out for development on or near historic, cultural, and paleontological resources.

### *County of Los Angeles All-Hazard Mitigation Plan*

#### Wastewater and Sewer

- Policy PS/F 4.3: Ensure the proper design of sewage treatment and disposal facilities, especially in landslide, hillside, and other hazard areas.

#### Scenic Resources

- Policy C/OS 13.2: Manage development in hillside management areas (25 percent slope or greater) to protect their natural and scenic character and minimize risks from natural hazards, such as fire, flood, erosion, and landslides.
- Policy C/OS 13.3: Consider the following in the design of a project that is located within an HMA, to the greatest extent feasible:
  - Public safety and the preservation of hillside resources through the application of safety and conservation design standards, and
  - Maintenance of large contiguous open areas that limit landslide, liquefaction, and fire hazards and protect natural features, such as significant ridgelines, watercourses, and Significant Ecological Areas (SEAs).

#### Seismic Hazard

- Policy S 1.3: Require developments to mitigate geologic hazards, such as soil instability and landslides, in hillside management areas through siting and development standards.
- Policy S 1.4: Support the retrofitting of unreinforced masonry structures to help reduce the risk of structural and human loss due to seismic or geological hazards.

### *City of Diamond Bar, Natural Hazards Mitigation Plan*

The mission of the 2005 City of Diamond Bar Natural Hazards Mitigation Plan is to promote sound public policy designed to protect citizens, critical facilities, infrastructure, private property, and the environment from natural hazards. The plan's goals describe the overall direction that City of Diamond Bar agencies, organizations, and citizens can take to work toward mitigating risk from natural hazards. The goals are as follows:

#### Protect Life and Property

- Implement activities that assist in protecting lives by making homes, businesses, infrastructure, critical facilities, and other property more resistant to losses from natural hazards.
- Reduce losses and repetitive damages for chronic hazard events while promoting insurance coverage for catastrophic hazards. Improve hazard assessment information to make recommendations for discouraging new development in high hazard areas and encouraging preventative measures for existing development in areas vulnerable to natural hazards.

Public Awareness

- Develop and implement education and outreach programs to increase public awareness of the risks associated with natural hazards.
- Provide information on educational tools, partnership opportunities, and funding resources to assist in implementing mitigation activities.

Natural Systems

- Balance natural resource management, and land use planning with natural hazard mitigation to protect life, property, and the environment.
- Preserve, rehabilitate, and enhance natural systems to serve natural hazard mitigation functions.

Partnerships and Implementation

- Strengthen communication and coordinate participation among and within public agencies, citizens, non-profit organizations, business, and industry to gain a vested interest in implementation.
- Encourage leadership within public and private sector organizations to prioritize and implement local and regional hazard mitigation activities.

Emergency Services

- Establish policy to ensure mitigation projects for critical facilities, services, and infrastructure. Strengthen emergency operations by increasing collaboration and coordination among public agencies, non-profit organizations, business, and industry.
- Coordinate and integrate natural hazard mitigation activities, where appropriate, with emergency operations plans and procedures.

### *Sewer System Management Plan, City of Diamond Bar*

Los Angeles County provides wastewater collection and treatment services under contract to the City of Diamond Bar. The Los Angeles County Public Works Department (LACPWD) provides operation and maintenance services on the local collection system, while Los Angeles County Sanitation District (LACSD) provides operation and maintenance services on the trunk sewers and wastewater treatment services. The city and surrounding areas fall under the LA County Sanitation District No. 21. The local collection system consists of about 162 miles of gravity sewer lines and 11 pump stations.

### *Diamond Bar Municipal Code (DBMC)*

DBMC Chapter 22.22 (Hillside Management) includes regulations intended to "(e)ncourage the planning, design and development of sites that provide maximum safety with respect to fire hazards, exposure to geological and geotechnic(al) hazards, drainage, erosion and siltation, and materials of construction; provide the best use of natural terrain; and to prohibit development that

will create or increase fire, flood, slide, or other safety hazards to public health, welfare, and safety. Chapter 22.48 (Development Review) states that the intent of the development review process, among other things, is to limit construction in identified seismic or geologic hazard areas.

DBMC Section 15.00.320 introduces additions and amendments to the California Building Code, as 1801.3, 1803.8, 1803.8.1, 1809.4, and 18.108.180. Section 1801.3 requires the inclusion of seismic hazard zone maps within the City code. Section 1803.8 states that no building or grading permit may be issued if a property outside the site of proposed work could be damaged by a proposed project. Section 1803.8.1 adds that work requiring a building or grading permit is not allowed in an area that the City Engineer determines to be subject to hazard from landslide, settlement, or slippage. Section 1809.4 is amended to include five building requirements for foundations on expansive soils, including that exterior walls and interior bearing walls shall be supported on continuous foundation and that the depth of foundations below the natural and finish grades shall not be less than 24 inches for exterior and 18 inches for interior foundations. Section 18.108.180 requires that permits shall be reviewed to determine that the proposed development is reasonably safe from mudslide hazards.

## Professional Standards

### *Society of Vertebrate Paleontology Guidelines*

The Society of Vertebrate Paleontology (SVP) has established standard guidelines (SVP, 1995; 2010) that outline professional protocols and practices for conducting paleontological resource assessments and surveys, monitoring and mitigation, data and fossil recovery, sampling procedures, and specimen preparation, identification, analysis, and curation. Most practicing professional vertebrate paleontologists adhere closely to the SVP's assessment, mitigation, and monitoring requirements as specifically provided in its standard guidelines. Most state regulatory agencies with paleontological resource-specific Laws, Ordinances, Regulations, and Standards (LORS) accept and use the professional standards set forth by the SVP.

As defined by the SVP (2010:11), significant nonrenewable paleontological resources are:

> *Fossils and fossiliferous deposits, here defined as consisting of 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. Paleontological resources are considered to be older than recorded human history and/or older than middle Holocene (i. e., older than about 5,000 radiocarbon years).*

As defined by the SVP (1995:26), significant fossiliferous deposits are:

> *A rock unit or formation which contains significant nonrenewable paleontologic resources, here defined as comprising one or more identifiable vertebrate fossils, large or small, and any associated invertebrate and plant fossils, traces, and other data that provide taphonomic, taxonomic, phylogenetic, ecologic, and stratigraphic information (ichnites and trace fossils generated by vertebrate animals, e.g., trackways, or nests and middens which provide datable material and climatic information). Paleontologic resources are considered to be older than recorded history and/or older than 5,000 years BP [before present].*

Based on the significance definitions of the SVP (1995), all identifiable vertebrate fossils are considered to have significant scientific value. This position is adhered to because vertebrate fossils are relatively uncommon, and only rarely will a fossil locality yield a statistically significant number of specimens of the same genus. Therefore, every vertebrate fossil found has the potential to provide significant new information on the taxon it represents, its paleoenvironment, and/or its distribution. Furthermore, all geologic units in which vertebrate fossils have previously been found are considered to have high sensitivity. Identifiable plant and invertebrate fossils are considered significant if found in association with vertebrate fossils or if defined as significant by project paleontologists, specialists, or local government agencies.

A geologic unit known to contain significant fossils is considered to be "sensitive" to adverse impacts if there is a high probability that earth-moving or ground-disturbing activities in that rock unit will either directly or indirectly disturb or destroy fossil remains. Paleontological sites indicate that the containing sedimentary rock unit or formation is fossiliferous. The limits of the entire rock formation, both areal and stratigraphic, therefore define the scope of the paleontological potential in each case (SVP, 1995).

Fossils are contained within surficial sediments or bedrock, and are therefore not observable or detectable unless exposed by erosion or human activity. In summary, paleontologists cannot know either the quality or quantity of fossils prior to natural erosion or human-caused exposure. As a result, even in the absence of surface fossils, it is necessary to assess the sensitivity of rock units based on their known potential to produce significant fossils elsewhere within the same geologic unit (both within and outside of the study area), a similar geologic unit, or based on whether the unit in question was deposited in a type of environment that is known to be favorable for fossil preservation. Monitoring by experienced paleontologists greatly increases the probability that fossils will be discovered during ground-disturbing activities and that, if these remains are significant, successful mitigation and salvage efforts may be undertaken in order to prevent adverse impacts on these resources.

# Impact Analysis

## SIGNIFICANCE CRITERIA

For the purposes of this EIR, a significant adverse impact would occur if implementation of the Proposed Project would:

**Criterion 1:** **Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:**

- **i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault,**
- **ii. Strong seismic ground shaking,**
- **iii. Seismic-related ground failure, including liquefaction, or**
- **iv. Landslides;**

**Criterion 2:** **Result in substantial soil erosion or the loss of topsoil;**

**Criterion 3:** **Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse;**

**Criterion 4:** **Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property;**

**Criterion 5:** **Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water; or**

**Criterion 6:** **Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.**

## METHODOLOGY AND ASSUMPTIONS

### Geologic and Seismic Hazards

This evaluation of geologic and seismic hazard conditions was completed using published geologic, soils, and seismic maps and studies from USGS, CGS, and Los Angeles County. In order to address potential hazards from earthquakes or other local geologic hazards, implementation of the Proposed Project would ensure that development will continue to be completed in compliance with local and State regulations. These regulations include the CBC and the Seismic Hazard Mapping Act. Policies and implementation measures developed for the Proposed Project include continued conformance with these applicable local and State building regulations.

## Paleontological Resources

### *Paleontological Potential*

Paleontological potential is defined as the potential for a geologic unit to produce scientifically significant fossils. This is determined by rock type, past history of the geologic unit in producing significant fossils, and fossil localities recorded from that unit. Paleontological potential is derived from the known fossil data collected from the entire geologic unit, not just from a specific survey. In its "Standard Procedures for the Assessment and Mitigation of Adverse Impacts to Paleontological Resources," the SVP (2010) defines four categories of paleontological sensitivity (potential) for rock units: high, low, undetermined, and no potential:

- **High Potential.** Rock units from which vertebrate or significant invertebrate, plant, or trace fossils have been recovered are considered to have a high potential for containing additional significant paleontological resources. Rocks units classified as having high potential for producing paleontological resources include, but are not limited to, sedimentary formations and some volcaniclastic formations (e. g., ashes or tephras), and some low-grade metamorphic rocks which contain significant paleontological resources anywhere within their geographical extent, and sedimentary rock units temporally or lithologically suitable for the preservation of fossils (e. g., middle Holocene and older, fine-grained fluvial sandstones, argillaceous and carbonate-rich paleosols, cross-bedded point bar sandstones, fine-grained marine sandstones, etc.).

- **Low Potential.** Reports in the paleontological literature or field surveys by a qualified professional paleontologist may allow determination that some rock units have low potential for yielding significant fossils. Such rock units will be poorly represented by fossil specimens in institutional collections, or based on general scientific consensus only preserve fossils in rare circumstances and the presence of fossils is the exception not the rule, e. g. basalt flows or Recent colluvium. Rock units with low potential typically will not require impact mitigation measures to protect fossils.

- **Undetermined Potential.** Rock units for which little information is available concerning their paleontological content, geologic age, and depositional environment are considered to have undetermined potential. Further study is necessary to determine if these rock units have high or low potential to contain significant paleontological resources. A field survey by a qualified professional paleontologist to specifically determine the paleontological resource potential of these rock units is required before a paleontological resource impact mitigation program can be developed. In cases where no subsurface data are available, paleontological potential can sometimes be determined by strategically located excavations into subsurface stratigraphy.

- **No Potential.** Some rock units have no potential to contain significant paleontological resources, for instance high-grade metamorphic rocks (such as gneisses and schists) and plutonic igneous rocks (such as granites and diorites). Rock units with no potential require no protection or impact mitigation measures relative to paleontological resources.

For geologic units with high potential, full-time monitoring is generally recommended during any project-related ground disturbance. For geologic units with low potential, protection or salvage efforts will not generally be required. For geologic units with undetermined potential, field surveys by a qualified vertebrate paleontologist should be conducted to specifically determine the paleontologic potential of the rock units present within the study area.

### *Assessment of Significance*

The loss of identifiable fossils that could yield information important to prehistory, or that embody the distinctive characteristics of a type of organism, environment, period of time, or geographic region, would be a significant environmental impact. Direct impacts on paleontological resources primarily concern their potential destruction and the loss of information associated with these resources. This includes the unauthorized collection of fossil remains. If potentially fossiliferous bedrock or surficial sediments are disturbed, the disturbance could result in the destruction of paleontological resources and subsequent loss of information (significant impact). In general, for projects that are underlain by paleontologically sensitive geologic units, the greater the amount of ground disturbance, the higher the potential for significant impacts on paleontological resources.

Numerous paleontological studies have developed criteria for the assessment of significance for fossil discoveries (e.g. Eisentraut and Cooper, 2002; Murphey and Daitch, 2007; Scott and Springer, 2003, etc.). In general, these studies assess fossils as significant if one or more of the following criteria apply:

1. The fossils provide information on the evolutionary relationships and developmental trends among organisms, living or extinct;

2. The fossils provide data useful in determining the age(s) of the rock unit or sedimentary stratum, including data important in determining the depositional history of the region and the timing of geologic events therein;

3. The fossils provide data regarding the development of biological communities or interaction between paleobotanical and paleozoological biotas;

4. The fossils demonstrate unusual or spectacular circumstances in the history of life; or

5. The fossils are in short supply and/or in danger of being depleted or destroyed by the elements, vandalism, or commercial exploitation, and are not found in other geographic locations.

Significant paleontological resources are determined to be fossils or assemblages of fossils that are unique, unusual, rare, uncommon, or diagnostically important (Eisentraut and Cooper, 2002; Murphey and Daitch, 2007; Scott and Springer, 2003). Significant fossils can include remains of large to very small aquatic and terrestrial vertebrates or remains of plants and animals previously not represented in certain portions of the stratigraphy. Assemblages of fossils that might aid stratigraphic correlation, particularly those offering data for the interpretation of tectonic events, geomorphologic evolution, and paleoclimatology are also critically important (Scott and Springer, 2003; Scott et al., 2004).

A paleontological resources records search was conducted by the Natural History Museum of Los Angeles County on October 12, 2016. The records search included a review of all recorded fossil localities within the city limits and vicinity. Geologic maps were also reviewed. The purpose of the research is to determine whether or not there are previously recorded fossil localities or paleontologically sensitive formations within the Planning Area that require inclusion in the current analysis. The results also provide a basis for assessing the sensitivity of the Planning Area in regards to the potential for surface and subsurface paleontological resources to exist.

## IMPACTS

**Impact 3.6-1 Implementation of the Proposed Project would not directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:**

- **i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault,**
- **ii. Strong seismic ground shaking,**
- **iii. Seismic-related ground failure, including liquefaction, or**
- **iv. Landslides. (*Less than Significant*)**

The proposed General Plan would have less than significant impacts regarding fault rupture, ground shaking, liquefaction, and landslides as discussed below.

*Fault Rupture*

As noted in the Physical Setting section, the Planning Area is located within a geographic area that is considered active or potentially active by the California Geological Survey. However, none of these faults pass through the Planning Area. Additionally, no Alquist-Priolo Earthquake Fault Zones overlap with the Planning Area. Potential adverse effects on people or structures from the rupture of a known earthquake fault would be minimized to the greatest extent feasible by CBC requirements that protect buildings from fault rupture. Due to the absence of active faults in the Planning Area, the risk of surface rupture, or the breaking of the ground is very low. Therefore, the impacts related to fault rupture are less than significant.

*Groundshaking*

Earthquakes in and near the Planning Area have the potential to cause ground shaking of significant magnitude. Figure 3.6-3: Regional Faults displays the location and extent of the profiled earthquake faults near the Planning Area. The Proposed Project would allow for additional development within the Planning Area, which could expose people and property to strong seismic ground shaking. However, all new buildings would be constructed in compliance with the CBC. Section 1613 of the CBC requires that all structures be designed and constructed to resist the effects of earthquake motions in accordance with the Minimum Design Loads for Buildings and Other Structures established by the American Society of Civil Engineers. Additionally, the Proposed Project policies listed below would address any potential impacts associated with strong seismic groundshaking.

Therefore, compliance with the CBC and implementation of the Proposed Project would result in less than significant impacts on people and structures from strong seismic groundshaking.

*Liquefaction*

Liquefaction typically occurs in areas underlain with loose saturated cohesionless soils within the upper 50 feet of subsurface materials. These soils, when subjected to ground shaking, can lose their strength as a result of the buildup of excess pore water pressure, causing them to behave closer to a liquefied state. Due to the presence of unconsolidated groundwater table and steep terrain, there is a risk of liquefaction and lateral spreading within the valley basins in the Planning Area, notably along Diamond Bar Boulevard. Additional areas located within liquefaction zones include land directly south of the Metrolink Station (located at 600 S Brea Canyon Rd, City of Industry), along Highway 57 and 60 at the western border of the Planning Area, and within the SOI and Tres Hermanos Ranch. The Proposed Project policies listed below would address liquefaction potentials. Therefore, the potential impact related to liquefaction would be less than significant.

*Seismically Induced Landslides*

Rapid erosion and landslides are most likely to occur on sloped areas. As the Planning Area consists of steep hills of 30 percent slope or greater, the Planning Area is subject to a high risk of landslides. The potential impacts from landslides on development of future land uses associated with the Proposed Project would be addressed through site-specific geotechnical studies prepared in accordance with CBC requirements and standard industry practices, as needed, which would specifically address landslide hazards. Development would conform to the current design provisions of the CBC to mitigate losses from landslides. In addition, the Proposed Project policies that seek to protect hillside development would serve to address impacts in this area to a level that is less than significant.

*Proposed General Plan Policies that Address the Impact*

<u>Land Use & Economic Development</u>

LU-P-55. Preserve publicly-owned, undeveloped hillsides, as well as privately-owned hillsides with an Open Space General Plan designation, as natural open space in perpetuity. On privately-owned property which has a residential land use designation, preserve hillsides as natural open space through Diamond Bar's Hillside Management Ordinance by allowing residential development only at the permitted densities and where development would not detract from the protection and overall perception of the hillsides as natural topographic and ecological features, or negatively impact public safety or welfare.

LU-P-56. Ensure that development on privately-owned, residentially designated land in hillside areas is compatible with surrounding natural areas by requiring that development:

a. Minimizes—as articulated by the landform grading criteria of the Hillside Management Ordinance—excavation, grading, and earthwork to retain natural vegetation and topography;

b. Preserves existing vistas of significant hillside features such as ridgelines, particularly from public places;

c. Does not create unsafe conditions;

d. Incorporates and is sensitive to natural contours and land forms in its site design, including hydrological features;

e. Preserves natural watersheds, including existing vegetation within undeveloped hillside areas to the maximum extent feasible, including mature trees and native plant materials;

f. Permits fuel modification as part of the Fire District's approved fuel modification program;

g. Utilizes planting palettes consisting of drought tolerant, fire resistant, plants with colors similar to those of native materials in the surrounding area; and

h. Groups plants within swale areas to more closely reflect natural conditions within landform graded slopes.

<u>Public Safety</u>

PS-G-1. Partner with the Los Angeles County Fire and Sheriff's Departments in community education efforts aimed at preventing potential loss of life, physical injury, property damage, public health hazards, and nuisances from seismic ground shaking and other geologic hazards such as landslides and mudslides.

PS-P-1. Require new emergency facilities, including, but not limited to, fire stations, paramedic services, police stations, hospitals, ambulance services, and emergency operations centers be designed to withstand and remain in operation following the maximum credible earthquake event.

PS-P-2. Require areas identified as having significant liquefaction potential (including secondary seismic hazards such as differential compaction, lateral spreading, settlement, rock fall, and landslide) to undergo site-specific geotechnical investigation prior to development and to mitigate the potential hazard to a level of insignificance or, if mitigation is not possible, to preserve these areas as open space or agriculture.

PS-P-3. Periodically update the grading standards to supplement the State and local building and construction safety codes with detailed information regarding rules, interpretations, standard specifications, procedures requirements, forms, and other information applicable to control excavation, grading, and earthwork construction, and provide guidelines for preparation of geotechnical reports in the city.

PS-P-4. Carry out a review of critical facilities that may be vulnerable to major earthquakes and landslides and develop programs to upgrade them.

PS-P-5. Develop a City-based public awareness/earthquake preparedness program to educate the public about seismic hazards and what to do in the event of an earthquake.

PS-P-6. Prevent and control soil erosion and corresponding landslide risks through hillside protection and management.

*Mitigation Measures*

None required.

### Impact 3.6-2 Implementation of the Proposed Project would not result in substantial soil erosion or the loss of topsoil. (*Less than Significant*)

Development anticipated by the Proposed Project would likely include earthwork activities that could expose soils to the effects of erosion or loss of topsoil. Once disturbed, either through removal of vegetation, asphalt, or an entire structure, stockpiled soils can be exposed to the effects of wind and water if not managed properly. The Proposed Project includes policies, listed below, that require the use of best management practices (BMPs) to control soil erosion during and after ground-disturbing activities and geotechnical reports for projects requiring grading permits.

In addition, development that disturbs more than one acre would be subject to compliance with a NPDES permit, including the implementation of BMPs, some of which are specifically implemented to reduce soil erosion or loss of topsoil, and the implementation of a storm water pollution prevention plan (SWPPP) through the local jurisdiction. BMPs that are required under a SWPPP include erosion prevention measures that have proven effective in limiting soil erosion and loss of topsoil. Generally, once construction is complete and exposed areas are revegetated or covered by buildings, asphalt, or concrete, the erosion hazard is substantially eliminated or reduced.

Therefore, the potential for adverse soil erosion and topsoil loss impacts related to land use changes from implementation of the Proposed Project is less than significant with implementation of the proposed policies below.

*Proposed General Plan Policies that Address the Impact*

Policies PS-G-1, PS-P-1, PS-P-2, PS-P-3, PS-P-4, PS-P-5, PS-P-6, LU-P-55, and LU-P-56 as listed under Impact 3.6-1 above, in addition to the following:

<u>Resource Conservation</u>

RC-P-24. Protect and, where feasible, enhance or restore the city's waterways and drainages, preventing erosion along the banks, removing litter and debris, and promoting riparian vegetation and buffers.

RC-P-26. Require the implementation of a stormwater pollution prevention plan (SWPPP), and inspection by a Construction General Permit Qualified SWPPP Practitioner (QSP), during construction and post construction to limit land disturbance activities such as clearing and grading and cut-and-fill; avoid steep slopes, unstable areas, and erosive soils; and minimize disturbance of natural vegetation and other physical or biological features important to preventing erosion or sedimentation.

*Mitigation Measures*

None required.

### Impact 3.6-3 Implementation of the Proposed Project would not result in development located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse. (*Less than Significant*)

Some improvements associated with implementation of the Proposed Project could be located on geologic units or soils that are unstable, or that could become unstable and result in geologic hazards if not addressed appropriately. Areas with underlying materials that include undocumented fills, soft compressible deposits, or loose debris could be inadequate to support development, especially multi-story buildings. Soils that exhibit expansive properties when exposed to varying moisture content over time could result in damage to foundations, walls, or other improvements. Structures, including residential units and commercial buildings, could be damaged as a result of settlement or differential settlement where structures are underlain by materials of varying engineering characteristics. Construction of new structures in the vicinity of relatively steep slopes could provide additional loading causing landslides or slope failure from unstable soils or geologic units. Slope failure can occur naturally through rainfall or seismic activity, or through earthwork and grading related activities. Because Diamond Bar is composed of mostly hilly terrain, some of which is categorized as steep slopes of over 30-degree inclines, it has the potential for landslides, with the exception of the valley, where the majority of proposed development is located.

The potential hazards of unstable soil or geologic units would be addressed largely through the integration of geotechnical information in the planning and design process for projects to determine the local soil suitability for specific projects in accordance with standard industry practices and state-provided requirements, such as CBC requirements that are used to minimize the risk associated with these hazards. Geotechnical investigations would be required to thoroughly evaluate site-specific geotechnical characteristics of subsurface soils and bedrock to assess potential hazards and recommend site preparation and design measures to address any hazards which may be present. These measures are enforced through compliance with the CBC to address hazards relating to unstable soils and slope failure. Furthermore, policies in the Proposed Project would address risk of exposure to geological hazards, including lateral spreading and landslide, by mandating site-specific geotechnical investigation and mitigation prior to development, continually upgrading the City's geotechnical reporting standards, and engaging in hillside protection and management.

The potential for landslide, lateral spreading, subsidence, liquefaction, or collapse impacts related to changes from implementation of the Proposed Project is less than significant.

*Proposed General Plan Policies that Address the Impact*

Policies PS-G-1, PS-P-2, PS-P-3, PS-P-6, RC-P-26, LU-P-55, and LU-P-56, as listed under Impact 3.6-1 and Impact 3.6-2 above.

*Mitigation Measures*

None required.

### Impact 3.6-4 Implementation of the Proposed Project would not result in development located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property. (*Less than Significant*)

Ordinance Section 1809.4 addresses construction on expansive soils, stating that, unless otherwise specified by a registered geotechnical engineer, foundation systems within Diamond Bar are considered to be on expansive soil. Development associated with the Proposed Project could therefore include development occurring on soils considered to be expansive. This is especially true within Change Areas 2 and 4, which overlie significant regions of Altamont Clay Loam. Soils that exhibit expansive properties when exposed to varying moisture content over time could result in damage to foundations, walls, or other improvements.

The potential hazards of expansive soils would be addressed largely through the integration of geotechnical information in the planning and design process for projects to determine the local soil suitability for specific projects in accordance with standard industry practices and state-provided requirements, such as CBC requirements that regulate the analysis of expansive soils. Geotechnical investigations would be required to thoroughly evaluate site-specific geotechnical characteristics of subsurface soils to assess potential hazards and recommend site preparation and design measures to address any hazards which may be present. These measures are enforced through compliance with the CBC to address hazards relating to unstable soils. Diamond Bar has adopted the CBC through Ordinance Section 15.00.310, and introduced legislation explicitly addressing measures to reduce risk associated with foundation construction on expansive soil in Ordinance Section 1809.4.

Furthermore, policies in the Proposed Project would address risk of exposure to geological hazards, including expansive soils, by mandating site-specific geotechnical investigation and mitigation prior to development, and continually upgrading the City's geotechnical reporting standards.

Compliance with existing regulations and implementation of the Proposed Project policies and implementing actions would ensure that any impact occurs at a less than significant level.

*Proposed General Plan Policies that Address the Impact*

Policies PS-G-1, PS-P-2, PS-P-3, and RC-P-26, as listed under Impact 3.6-1 and Impact 3.6-2 above.

*Mitigation Measures*

None required.

### Impact 3.6-5 Implementation of the Proposed Project would not result in development located on soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water. (*Less than Significant*)

A significant impact could occur if new development under the Proposed Project locates structures in areas without connection to the City's sanitary sewer system and on soils incapable of adequately supporting the use of septic tanks. The majority of existing development within Diamond Bar is connected to the sanitary sewer system, and the majority of new development resulting from implementation of the Proposed Project would be in central areas served by the current sewer system. Implementation of the Proposed Project would not result in development in areas having soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems.

The local system of sewer lines and pump stations feed two trunk sewer lines that convey wastewater to a Los Angeles County Sanitation Department (LACSD) treatment facility. These lines convey wastewater to a County treatment facility outside city limits, also maintained by the LACSD. As new development occurs, the LACSD requires the new developments to annex into its service area for operation, maintenance, and treatment services.

In general, future development is subject to the City and County subdivision ordinances regulating the use of septic systems and connections to public sewer lines. In most cases, new development and renovation is subject to review by the Los Angeles County Department of Public Health, which requires designation and feasibility testing of a future expansion area for septic systems in cases where public sewers are not available[1]. The associated feasibility report includes a soil profile and discussion of soil qualities including the presence of bedrock outcroppings and any features that may affect subsurface wastewater dispersal. Additionally, Diamond Bar and Los Angeles County enforce standard plans and specifications for the construction of sanitary sewers and associated infrastructure[2].

The regulations of the General Plan would ensure the continued maintenance and expansion of wastewater collection facilities and requires that wastewater services be made available to new development. These activities will be carried out in conjunction with Diamond Bar's preexisting sewer line maintenance and inspection programs.

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[1] Los Angeles County Department of Public Health, 2018. Conventional and Non-Conventional Onsite Wastewater Treatment Systems - Requirements and Procedures. Online: http://www.publichealth.lacounty.gov/eh/docs/ep_lu_OWTS_ReqAndProc.pdf. Accessed June 26, 2019.

[2] Los Angeles County Department of Public Works, 2018. Water Resources Core Service Area Sewer Management Plan for the Consolidated and Marina Sewer Maintenance Districts. Online: https://dpw.lacounty.gov/smd/smd/ssmp.pdf. Accessed June 26, 2019.

Therefore, the Proposed Project would have a less than significant impact related to soils capability to support wastewater disposal.

*Proposed General Plan Policies that Address the Impact*

Policy RC-P-26, as discussed under Impact 3.6-2, in addition to the following:

Public Facilities

PF-G-6. Ensure that public facilities and services, including water, wastewater, sewage, electricity, natural gas, and solid waste, are provided in a safe, efficient, and timely manner to meet the current and future needs of the city.

PF-P-31. Require the construction of water, sewer, drainage, and other necessary public facilities, and encourage storm water capture prior to or concurrent with new development.

PF-P-32. Require project sponsors to provide all necessary infrastructure improvements, including the pro rata share of system-wide improvements.

PF-P-33. Maintain a development fee structure that ensures that costs for new capital facilities and expansion of existing facilities necessitated by the approval of new development or intensification of existing development are funded by the proponents or beneficiaries of projects, in proportion to the demand created by the development.

PF-P-38. Work with the Los Angeles County Public Works Department (LACPWD) and Los Angeles County Sanitation District (LACSD) to ensure that wastewater treatment conveyance systems and treatment facility capacity is available to serve planned development within Diamond Bar.

PF-P-39. Continue to monitor and assess wastewater and sewer system operations to identify and subsequently address system deficiencies.

*Mitigation Measures*

None required.

### Impact 3.6-6 Implementation of the Proposed Project would/would not directly or indirectly destroy a unique paleontological resource or site or unique geologic feature. (*Less than Significant with Mitigation*)

The proposed Climate Action Plan would have no potential impact on paleontological resources. Future development proposals initiated under the proposed General Plan that include construction-related ground disturbance (e.g., grubbing/clearing, grading, excavation, trenching, and boring) into native soil are activities that have potential to destroy paleontological resources. Future development that does not require ground-disturbing activities would cause no impacts on paleontological resources. Other development activities that include ground disturbance of heavily disturbed soils or engineered artificial fill would also cause no impact on significant paleontological resources since they have likely been displaced from previous disturbances (such as the original / previous construction) and there is very limited to no potential to encounter intact and significant resources in disturbed soils. However, intact significant resources may be encountered beneath the depth of previous disturbances or in pockets of undisturbed soils within existing developments.

Anticipated development in the Planning Area would occur through infill development on vacant property, and through redevelopment or revitalization of underutilized properties, which could result in damage to paleontological resources located at or near previously undisturbed ground surfaces as result of construction-related ground disturbance. In addition, infrastructure and other improvements requiring ground disturbance could result in damage to or destruction of paleontological resources buried below the ground surface.

The results of the paleontological resources records search and geologic map review indicated that the Planning area is underlain by Quaternary Alluvium and the Puente/Monterey Formation. Surficial deposits of Quaternary Alluvium are unlikely to contain fossils given the recent age of the sediments. However, younger Quaternary Alluvium deposits are underlain by older Quaternary Alluvium soils that have yielded significant vertebrate fossils from similar sediments nearby. The Quaternary Alluvium deposits are assigned a low-to-high paleontological potential with sensitivity increasing with depth. The Puente/Monterey Formation has yielded significant vertebrate fossils, including one known locality within the city limits as noted in the environmental setting. The Puente/Monterey Formation is assigned a high paleontological potential. Significant or unique paleontological resources have the potential to contribute to the geological and paleontological record of the region and may be of scientific importance to researchers. Any project that proposes ground disturbance could result in a significant impact on unique paleontological resources.

The General Plan policies listed below would help address the impact by requiring that new development establish a procedure for the management of paleontological materials found on-site during a development and that discoveries be examined by a qualified paleontologist to determine if it represents a significant paleontological resource and to make recommendations for the preservation in place or recovery of the resource. However, these policies do not require the pre-construction identification of paleontological resources to determine if there are unique paleontological resources within a proposed project site that could be adversely impacted by a proposed project, nor do they require paleontological resources monitoring in areas with high paleontological potential. Therefore, the Proposed Project could directly or indirectly destroy unique paleontological resources. This impact would be potentially significant.

Mitigation is required to ensure that unique paleontological resources are properly identified. With mitigation, impacts on unique paleontological resources would be less than significant under the Proposed Project.

*Proposed General Plan Policies that Address the Impact*

Resource Conservation

RC-I-50 Establish a procedure for the management of paleontological materials found on-site during a development, including the following provisions:

- If materials are found on-site during grading, require that work be halted until a qualified professional evaluates the find to determine if it represents a significant paleontological resource, and makes a recommendation for the preservation in place or recovery of the resource.
- If the resource is determined to be significant, the paleontologist shall supervise removal of the material and determine the most appropriate archival storage of the material.
- Appropriate materials shall be prepared, catalogued, and archived at the applicant's expense and shall be retained within Los Angeles County if feasible.

*Mitigation Measures*

To reduce impacts on unique paleontological resources, project-specific paleontological resources studies are required for all future development that includes ground disturbance or excavations in undisturbed native soils. Project-specific paleontological studies would include a paleontological records search, geological map and scientific literature review, subsurface sensitivity assessment, and, possibly, pedestrian survey. Monitoring of construction-related ground disturbance for any project site or portion thereof that is determined to be sensitive for subsurface paleontological resources as a result of the paleontological resources studies would also be required. Monitoring would be conducted by a qualified monitor meeting the Society of Vertebrate Paleontology's standards for paleontological resource monitors (SVP, 2010) and overseen by a qualified professional paleontologist. The proper treatment of paleontological resources and enforcement of applicable federal, state, and local laws and regulations would be required for significant discoveries. Future development that does not require ground-disturbing activities would cause no impacts on paleontological resources and therefore no additional studies or monitoring is necessary for these specific types of activities.

MM-GEO-1 Prior to development of projects that involve ground disturbance or excavations in undisturbed native soils, the project proponent shall retain a paleontologist meeting the Society of Vertebrate Paleontology's standards for qualified professional paleontologist (SVP, 2010) to conduct an paleontological resources assessment including: a site-specific database search at the Natural History Museum of Los Angeles County and/or other appropriate facilities (such as the University of California Museum of Paleontology); geologic map and scientific

literature review; a pedestrian field survey, where deemed appropriate by the qualified professional paleontologist; assessment of the project area's paleontological sensitivity and paleontological monitoring requirements (locations, depths, duration, timing); and preparation of a technical report that documents the methods and results of the study. The report shall be prepared prior to the City of Diamond Bar's approval of project plans and publication of subsequent CEQA documents.

MM-GEO-2 The City shall require paleontological resources monitoring for any project that has a high potential for encountering subsurface paleontological resources. The location, depths, duration, and timing of monitoring shall be determined by the qualified professional paleontologist based on the sensitivity assessment in the study required as part of MM-GEO-1. Prior to the start of ground disturbance, the project proponent shall retain a qualified monitor meeting the Society of Vertebrate Paleontology's standards for paleontological resource monitors (SVP, 2010), and who shall work under the direct supervision of the qualified professional paleontologist. In the event that paleontological resources are unearthed during ground-disturbing activities, the monitor shall be empowered to halt or redirect ground-disturbing activities away from the vicinity of the discovery until the qualified professional paleontologist has determined its significance and provided recommendations for preservation in place or recovery of the resource. The monitor shall keep daily logs detailing the types of activities and soils observed, and any discoveries. After cessation of ground disturbance, the qualified professional paleontologist shall prepare a report that details the results of monitoring.

Implementation of Mitigation Measures MM-GEO-1 and MM-GEO-2 would reduce impacts on unique paleontological resources to a level that is less than significant.

# 3.7 Hazards, Hazardous Materials, and Wildfire

This section presents a general discussion of hazardous materials and public health and safety impacts within the Planning Area. This section assesses potential impacts from future development under the Proposed Project as related to hazards and hazardous materials, including those associated with the use, transportation, or disposal of hazardous materials; hazardous materials use in the vicinity of a school; hazardous materials sites; airport hazards; emergency response planning; and wildfire hazards. For discussion of geologic and seismic hazards, see Section 3.6: Geology, Soils, and Seismicity. For discussion of hydrologic and flood hazards, see Section 3.8: Hydrology and Water Quality.

There were two comments on the Notice of Preparation (NOP) regarding topics covered in this section. Those comments included the following topics specific to Hazards, Hazardous Materials, and Wildfire:

- Hills for Everyone (HFE) requested that the EIR address impacts associated with earthquake faults within or near the City, known and/or historic landslides, known or potential locations for liquefaction, and alteration of landforms. HFE requested that the EIR address site contaminants within or near the City. Additionally, HFR requested that the EIR address impacts associated with the reduction of the wildland-urban interface and new development in High or Very High Fire Hazard Severity Zones.
- HFE also requested that the City complete a Health Risk Assessment based on its proximity to major freeways. Air quality impacts to sensitive receptors are discussed in Section 3.3-2.
- The Los Angeles County Fire Department stated that the development of the General Plan must comply with all applicable code and ordinance requirements for construction, access, water mains, fire flows, and fire hydrants.

# Environmental Setting

## PHYSICAL SETTING

Hazardous materials and wastes can result in public health hazards if improperly handled, released into the soil or groundwater, or released into the air through vapors, fumes, or dust.

### Hazardous Materials

"Hazardous materials," as defined by the California Code of Regulations (CCR), Title 22, Section 66260.10, are substances with certain physical properties that could pose a substantial present or future hazard to human health or the environment when improperly handled, disposed, or otherwise managed. This refers to a variety of injurious substances, including pesticides, herbicides, toxic metals and chemicals, liquefied natural gas, explosives, volatile chemicals, and radioactive materials. Hazardous materials are commonly found throughout the Planning Area in households, businesses, and agricultural operations. Typical residential and commercial substances include motor oil, paint, cleaners and solvents, gasoline, refrigerants, and lawn and gardening chemicals. In rural areas, pesticides and herbicides are often used in conjunction with agricultural operations.

*The Los Angeles County Area Plan for Hazardous Materials* was formulated to supplement the *Los Angeles County Operational Area Emergency Response Plan*, pursuant to Health and Safety Code Section 25503 and Title 19 of the California Code of Regulations. The plan is designed to address both known handlers of hazardous materials, and plans for action should an emergency release occur. The objectives of the plan include: provide procedures and protocols for emergency release personnel; facilitate pre-emergency planning; coordinate on-site activities between state, local, and federal agencies; train emergency personnel; and provide public safety information.

#### *Hazardous Waste*

A "hazardous waste" is any hazardous material that is discarded, abandoned, or slated to be recycled. (22 CCR § 66261.3). The criteria that render a material hazardous also make a waste hazardous. Nearly all businesses and households generate hazardous waste, and some businesses (such as industrial operations, gas stations and auto-related businesses, printers, and dry cleaners) may generate larger amounts. Medical waste, generated by hospitals, clinics, and laboratories, is also potentially hazardous. If improperly handled, hazardous materials and hazardous waste can be released into soils, groundwater, or air, where they can pose hazards to public health.

The Los Angeles County Fire Department maintains records and conducts inspections[1] of major hazardous waste generators within its jurisdiction. There are numerous firms throughout the City that currently produce, transport, or utilize hazardous materials of lesser quantities on a daily basis.

[1] County of Los Angeles Fire Department. Hazardous Materials Program. Online:https://www.fire.lacounty.gov/hhmd-2/hazardous-materials-program-2/ Accessed: June 19, 2019.

It is expected that small handlers will continue to be distributed throughout the City, and could become more widespread as the City grows.

There are currently no active landfills operating in Los Angeles County that accept hazardous wastes. Diamond Bar employs waste hauler franchise companies that specialize in the recycling of e-waste and disposal of hazardous waste materials, such as Curbside Inc., LA County HHW&E-Waste Roundups, S.A.F.E. Collection Center, and the City Sheriff's Station.[2]

### *Hazardous Materials Transport*

Near the Planning Area, hazardous materials may be transported by vehicle along roadways or through transmission lines such as pipelines. Hazardous materials transported along roadways within the Planning Area includes wastes produced by businesses such as gasoline service stations, dry cleaners, auto body repair shops, and printers, as well as medical wastes from sources such as laboratories, clinics, and hospitals; and hazardous substances such as gas and diesel that are delivered to locations in the planning area. The SR-57 Freeway and the SR-60 Freeway are major truck routes that transverse the Planning Area, and are classified as hazardous material transport routes by the California Highway Patrol (CHP). In the immediate area of Diamond Bar, Interstate 10 and SR-71 are also classified as hazardous material routes. According to this classification, trucks using these routes can also transport explosive materials. There are no "Safe Stopping Places" or inspection stops designated by the CHP within the City limit.

A variety of hazardous materials are transported along the railroad lines that are located west of Diamond Bar. Two branch lines travel between Pomona and Los Angeles and traverse City of Industry. The rail line closest to the City is operated by Union Pacific, with segments adjacent to Sunset Crossing Park and the PONY Baseball fields, as well as the residential and industrial areas between the Diamond Bar Estates mobile home park and the westerly City limit at Walnut Drive. The other rail line to the north, running generally parallel to Valley Boulevard, is operated by the Southern Pacific Railroad. Transport of hazardous materials via rail is controlled by state and federal regulations. It is likely that a significant amount of hazardous materials is shipped by rail along these routes each year. The Proposed Project Study Area is located approximately 1.4 miles from the nearest railroad line[3], approximately 1 mile from the nearest gas transmission pipeline, and approximately 1.5 miles from the nearest hazardous liquid pipeline[4].

### *Hazardous Materials Sites*

The California Department of Toxic Substances Control (DTSC) and State Water Resources Control Board (SWRCB) track and identify sites with known or potential contamination and sites that may impact groundwater, as follows:

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[2] City of Diamond Bar, 2013. Draft Environmental Impact Report: General Plan and Zoning Amendment No. PL2013-227.

[3] U.S. Department of Transportation Federal Railroad Administration. Maps – Geographic Information System. Online: https://www.fra.dot.gov/Page/P0053. Accessed: June 19, 2019

[4] National Pipeline Mapping System. Public Viewer. Online: https://www.npms.phmsa.dot.gov/GeneralPublic.aspx. Accessed June 19, 2019.

- **EnviroStor.** The DTSC EnviroStor hazardous waste facility and cleanup sites database identifies sites that have known contamination or potentially contaminated sites requiring further investigation, and facilities permitted to treat, store, or dispose of hazardous waste. The EnviroStor database includes lists of the following site types: federal Superfund sites; State Response, including military facilities and State Superfund; voluntary cleanup; and school sites.
- **GeoTracker.** The SWRCB GeoTracker database tracks sites that impact groundwater or have the potential to impact groundwater. It includes sites that require groundwater cleanup such as Leaking Underground Storage Tanks (LUSTs), Department of Defense, and Site Cleanup Program sites; as well as permitted facilities that could impact groundwater such as operating Underground Storage Tanks (USTs), irrigated lands, oil and gas production sites, and land disposal sites.

Data for this analysis was downloaded from EnviroStor and GeoTracker databases. A total of 46 sites were identified as permitted hazardous waste facilities, land disposal sites, or USTs by DTSC, the EPA, or SWRCB. Three sites were identified by DTSC as open cleanup sites having known or potential hazardous substance release.

In general, contaminated sites are largely located along the city's major local roadways (e.g., Diamond Bar Boulevard, Grand Avenue, Golden Springs Drive), as depicted in Figure 3.7-1. The majority of sites listed by the SWRCB are LUST cleanup sites, most of which are automobile-related uses such as gas stations. As of 2019, most of those cases had been closed. Also present in the Planning Area are a number of sites enrolled in the Regional Water Quality Control Board (RWQCB) Waste Discharge Requirements (WDR) program to regulate discharges into receiving waters. The program typically regulates discharges of domestic or municipal wastewater, food processing related wastewater, and industrial wastewater.

**Table 3.7-1: DTSC and SWRCB Hazardous Sites**

| *Site Name* | *Location* | *Site Type* | *Status* |
|---|---|---|---|
| *SWRCB Open Sites (Geotracker)* | | | |
| Chevron Service Station Former | 23671 Golden Spring Dr | LUST Cleanup Site | Open – Site Assessment |
| Conocophillips Company #2705690 | 2875 Diamond Bar Blvd S | LUST Cleanup Site | Open - Remediation |
| Country Hills Cleaners | 1155 S Diamond Bar Blvd | Cleanup Program Site | Open – Site Assessment – Land Use Restrictions |
| *SWRCB Closed Sites (Geotracker)* | | | |
| Al Sal Oil #26 | 301 Diamond Bar Blvd S | LUST Cleanup Site | Completed – Case Closed |
| ARCO #5528 | 780 S Brea Canyon Rd | LUST Cleanup Site | Completed – Case Closed |
| ARCO #6212 | 3303 Diamond Bar Blvd | LUST Cleanup Site | Completed – Case Closed |
| CALTRANS Diamond Bar Maint Sta | 21420 Golden Springs Dr E | LUST Cleanup Site | Completed – Case Closed |
| Chevron #9-0679 | 150 Diamond Bar Blvd S | LUST Cleanup Site | Completed – Case Closed |
| Chevron #9-1175 | 21095 Golden Springs Dr E | LUST Cleanup Site | Completed – Case Closed |
| Chevron #9-8559 (Former) | 2707 Diamond Bar Blvd | LUST Cleanup Site | Completed – Case Closed |
| Country Hills Towne Center | 2809 South Diamond Bar Blvd | Cleanup Program Site | Completed – Case Closed |
| Diamond Bar Country Club | 22751 Golden Springs Dr E | LUST Cleanup Site | Completed – Case Closed |
| Expert Cleaners (Former) | 20627 East Golden Springs Dr | Cleanup Program Site | Completed – Case Closed |
| Exxon #7-2882 (Former) | 350 Diamond Bar Blvd S | LUST Cleanup Site | Completed – Case Closed |
| LA CO DPW Sewer Fountain SPGS | 21418 E Fountain Springs | LUST Cleanup Site | Completed – Case Closed |
| LA CO DPW Sewer Fountain Springs | 21418 E Fountain Springs | LUST Cleanup Site | Completed – Case Closed |
| LA CO FD Fire Station #119 | 20480 Pathfinder Rd E | LUST Cleanup Site | Completed – Case Closed |
| LA CO FD Fire Station #121 | 346 Armitos | LUST Cleanup Site | Completed – Case Closed |

**Table 3.7-1: DTSC and SWRCB Hazardous Sites**

| *Site Name* | *Location* | *Site Type* | *Status* |
|---|---|---|---|
| Mobil #-18-002 | 504 Diamond Bar Blvd N | LUST Cleanup Site | Completed – Case Closed |
| Mobil #11-114 | 22628 Golden Springs Dr E | LUST Cleanup Site | Completed – Case Closed |
| Mobil #18-E67 (Former #11-E67) | 1024 Brea Canyon Rd S | LUST Cleanup Site | Completed – Case Closed |
| Mobil #18-P6V | 350 Diamond Bar Blvd S | LUST Cleanup Site | Completed – Case Closed |
| Mobil 18-114 | 22628 Golden Springs Dr | LUST Cleanup Site | Completed – Case Closed |
| One Hour Cleaner | 1164 S Diamond Bar Blvd | Cleanup Program Site | Completed – Case Closed |
| Shell | 206 Diamond Bar Blvd S | LUST Cleanup Site | Completed – Case Closed |
| Shell #204-2173-0274 | 206 Diamond Bar Blvd S | LUST Cleanup Site | Completed – Case Closed |
| Shell #204-2173-0308 | 3241 Brea Canyon Rd S | LUST Cleanup Site | Completed – Case Closed |
| Shell (Texaco Refining & Marketing) | 21103 Golden Springs Dr | LUST Cleanup Site | Completed – Case Closed |
| Shell Service Station | 3241 Brea Canyon Road | LUST Cleanup Site | Completed – Case Closed |
| UNOCAL #5683 | 2875 Diamond Bar Blvd S | LUST Cleanup Site | Completed – Case Closed |
| *SWRCB WDR Sites (Geotracker)* | | | |
| 2738 Clear Creek Lane | 2738 Clear Creek Lane | WDR Site | Draft - WDR |
| Former Country Hills Cleaners | 1155 South Diamond Bar Boulevard | WDR Site | Active - WDR |
| Garland and Chantal Lo | 24002 Falcons View Drive | WDR Site | Draft - WDR |
| Gasparian Project | 2122 Indian Creek Road | WDR Site | Draft - WDR |
| Mobil Station 18114 | 22628 Golden Springs Drive | WDR Site | Never Active - WDR |
| OU Residence | 2651 Braided Mane Drive | WDR Site | Active - WDR |
| Peter MA, Linda MA | 2969 Shady Ridge Lane | WDR Site | Draft - WDR |

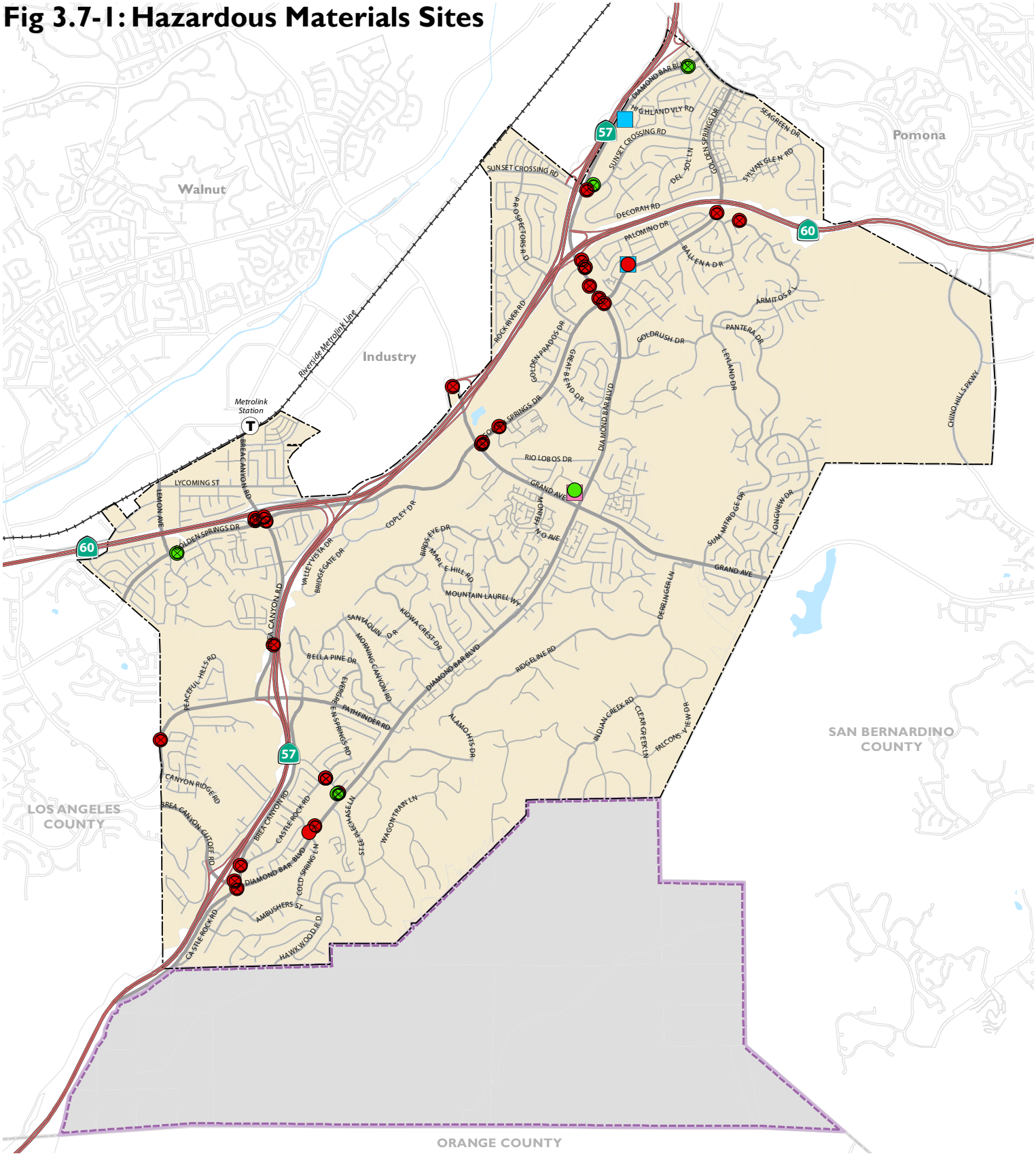
**Table 3.7-1: DTSC and SWRCB Hazardous Sites**

| *Site Name* | *Location* | *Site Type* | *Status* |
|---|---|---|---|
| Property at 24141 Lodgepole Rd, Diamond Bar | 24141 Lodgepole Road | WDR Site | Historical - WDR |
| Residence Rustom and Rita Contractor | 2695 Shady Ridge Lane | WDR Site | Historical - WDR |
| *SWRCB Informational Sites (Geotracker)* | | | |
| Shell Station Former | 206 Diamond Bar Blvd S | Non-case Information | Informational Item |
| *DTSC Cleanup Sites (Envirostor)* | | | |
| County Hills Cleaners | 1155 S. Diamond Bar Blvd., Suite I | Evaluation | Refer: 1248 Local Agency |
| Former Diamond Jim's Dairy | 23671 Golden Springs Road | Voluntary Cleanup | Refer: RWQCB |
| Oak Tree Plaza | 916 N Diamond Bar Blvd. | Voluntary Cleanup | No Further Action |

*Sources: Geotracker, SWRCB, 2019; Envirostor, DTSC, 2019; Dyett & Bhatia, 2019.*

Los Angeles' County Site Mitigation Unit (SMU) oversees and facilitates the timely cleanup of hazardous materials sites. The SMU issues no further action required letters upon the completion of site assessment and remediation, and confirmation that cleanup standards have been met. SMU jurisdiction includes soil-only remediation. Groundwater contamination is overseen by the RWQCB or DTSC, and oversight authority for underground storage tanks falls under the RWQCB, local city fire departments, or the Los Angeles County Department of Public Works.

# Fig 3.7-1: Hazardous Materials Sites




**Hazardous Sites (SWRCB)**

- LUST Cleanup Site
- Cleanup Program Site
- Closed Sites

**Hazardous Sites (DTSC)**

- Evaluation
- Voluntary Cleanup

- Highways
- Ramps
- Major Roads
- Local Roads
- Railroads

- Water Features
- City of Diamond Bar
- Sphere of Influence
- County Boundary

*Source: GeoTracker, State Water Resources Control Board (SWRCB), 2019; Envirostor, Department of Toxic Substances Control (DTSC), 2019; City of Diamond Bar, 2019*

0 0.375 0.75 1.5
MILES

### *Aerially-Deposited Lead*

Aerially-deposited lead is a common hazardous materials issue in urban areas. Soils adjacent to major roadways often contain elevated concentrations of lead. The lead deposition is the result of airborne particulates and surface water runoff associated with tailpipe emissions prior to the time lead was phased out of vehicle fuels. Studies by the California Department of Transportation (Caltrans) suggest that hazardous waste levels of lead, if present, are generally found in soils within 30 feet of the edge of the pavement (Department of Toxic Substances Control, 2000).

The Planning Area contains several heavily-trafficked roadways, including California State Routes 57 and 60, Grand Avenue, S Diamond Bar Boulevard, and Golden Springs Drive. Properties located adjacent to roadways may contain elevated concentrations of lead in exposed surface soils, which could pose a health hazard to construction workers and users of the properties. Lead is a State-recognized carcinogen (causes cancer) and reproductive toxicant (causes birth defects or other reproductive harm) (CalEPA, 2007). Exposure of construction workers or future site occupants to lead in soil could result in adverse health effects, depending on the duration and extent of exposure.

### *Hazardous Materials in Building Materials*

Hazardous materials, such as lead and asbestos, may be found in building materials and disturbed during demolition and renovation activities associated with development or redevelopment. Lead compounds were commonly used in interior and exterior paints until they were banned in 1978. Prior to the 1980s, building materials often contained asbestos fibers, which were used to provide strength and fire resistance until they were banned. In addition, other common items present in buildings, such as electrical transformers, fluorescent lighting, electrical switches, heating/cooling equipment, and thermostats can contain hazardous materials, which may pose a health risk if not handled and disposed of properly.

Demolition of buildings has the potential to release lead particles, asbestos fibers, and/or other hazardous materials to the air where they may be inhaled by construction workers and the general public. Federal and State regulations govern the demolition of structures where lead or material containing lead is present. During demolition, lead-based paint that is securely adhering to wood or metal may be disposed of as demolition debris, which is a non-hazardous waste. Loose and peeling paint must be disposed of as a California and/or federal hazardous waste if the concentration of lead exceeds applicable waste thresholds. State and federal construction worker health and safety regulations require air monitoring and other protective measures during demolition activities where lead-based paint is present.

Federal, State, and local requirements also govern the removal of asbestos or suspected asbestos-containing materials (ACMs), including the demolition of structures where asbestos is present. All projects that include demolition, asbestos removal, and certain other activities must notify the South Coast Air Quality Management District (SCAQMD) before doing any work[5]. Workers

[5] County of Los Angeles Public Health. Asbestos. Online: http://www.publichealth.lacounty.gov/eh/community/asbestos.htm. Accessed: June 19, 2019.

conducting asbestos abatement must be trained in accordance with State and federal Occupational Safety and Health Administration (OSHA) regulations.

Fluorescent lighting tubes and ballasts, computer displays, and several other common items containing hazardous materials are regulated as "universal wastes" by the State of California. Universal waste regulations allow common, low-hazard wastes to be managed under less stringent requirements than other hazardous wastes. Management of other hazardous wastes is governed under the DTSC hazardous waste rules.

## Sensitive Receptors

Some populations, such as children, the elderly, and the infirm, are more susceptible to health effects of hazardous materials than the general population. Hazardous materials used near schools, day care centers, senior housing, and hospitals must consider potential health effects to these populations, often referred to as "sensitive receptors." Construction or redevelopment on contaminated properties that could potentially generate vapors or fugitive dust containing contaminants may potentially pose a health risk to these populations. In addition, commercial businesses in proximity to sensitive receptors may have hazardous emissions or handle hazardous or acutely hazardous materials or wastes that could pose a health risk to these sensitive receptors.

To protect sensitive receptors, Section 17210 et seq. of the State Education Code, Sections 21151.2, 21151.4, and 21151.8 of the Public Resources Code require that prospective school sites be reviewed to determine that such sites are not a current or former hazardous waste disposal site, a hazardous substance release site, or the site of hazardous substance pipelines. These laws also require consultation with local hazardous materials agencies and air quality districts to ensure that no sites within one-quarter mile of a school that handle or emit hazardous substances would potentially endanger future students or workers at the prospective school site.

Pursuant to the State Education Code, all school districts receiving State funds are required to prepare a Phase I environmental assessment on prospective school sites. The Phase I assessment would detail the historical uses of the property and indicate any potential for contamination. DTSC must review this assessment and make one of the following findings: 1) that no further action is required; or 2) that concerns about contamination exist and the district must conduct a Preliminary Endangerment Assessment (PEA). The PEA process entails site sampling and the development of a detailed risk assessment of any contaminants present on the proposed school property.

## Airport Hazards

Risks associated with airport operations include those to people and property located in the vicinity of the airport in the event of an accident, and those to the safety of persons aboard an aircraft.

The closest airport to the City of Diamond Bar is Brackett Field, located 6.53 miles away from the centroid of the 91765 zip code[6]. Other nearby airports include Chino Airport, Cable Airport, Ontario International Airport, Fullerton Municipal Airport, El Monte Airport, Corona Municipal

[6] Allplaces. Airport Search Results. Online: https://www.allplaces.us/afz.cgi?s=91765&rad=30. Accessed June 19, 2019.

Airport, Riverside Municipal Airport, John Wayne Airport, Long Beach Airport, Flabob Airport, and Rialto Municipal Airport, all of which are located 10 to 25 miles away from the centroid of the 91765 zip code. Diamond Bar does not fall within the Area of Influence of any of these airports[7].

## Emergency Response

Emergency operations in the Planning Area are undertaken by the Los Angeles County Fire Department, Los Angeles County Sheriff's Department, Los Angeles County Public Health, Los Angeles County Department of Public Social Services, and the American Red Cross[8]. The Los Angeles County Office of Emergency Management is responsible for the organization and direction of preparedness efforts within Los Angeles County and serves as the Operational Area coordinator for the Planning Area. The County of Los Angeles adopted an All-Hazard Mitigation Plan in 2014. The plan has been approved by California Office Governor's of Emergency Services (Cal OES) and by FEMA. The purpose of the HMP is to demonstrate the plan for reducing and/or eliminating risk in the County. The HMP assesses risks associated with flooding, earthquake, wildfire, hazardous material, and drought hazards, and identifies mitigation strategies to reduce the risk.

The County Fire Department follows national guidelines that require a five-minute response time for first-arriving fire and EMS units and eight minutes for paramedic units in urban areas, as well as an eight-minute response time for first-arriving fire and EMS units and 12 minutes for paramedic units in suburban areas. In 2015, the average response time for fire and emergency calls in the City was 5:58 minutes, slightly above the target response time. According to the County Sheriff's Department, the major obstacles to meeting response time standards are traffic during peak rush hour, and traffic in and around the schools during the beginning and ending of business hours.

Los Angeles county is also served by the Emergency Network of Los Angeles (ENLA) in the Los Angeles County Voluntary Organizations Active in Disasters (VOAD). This network represents a coalition of not-for-profit organizations, alongside government and private-sector partners, who serve a disaster function, and serves as a hub for sharing planning and recovery expertise among its members[9]. ENLA is recognized by the Los Angeles County Operational Area and the City of Los Angeles as the networking agency for community-based organizations[10].

The City recognizes the importance of emergency preparedness through the implementation of the Diamond Bar Emergency Operations plan and through collaboration on the implementation of the County of Los Angeles All-Hazard Mitigation Plan. These plans are based on the principles of the Standard Emergency Management Systems (SEMS), which follows the FIRESCOPE Incident Command System (ICS) identifying how the City fits into the overall SEMS structure. The California Emergency Services Act requires the City to manage and coordinate the overall emergency and recovery activities within its jurisdictional boundaries. Under SEMS, the City is responsible at two levels, the field response and local government levels. At the field response level,

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[7] Los Angeles County Airport Land Use Commission. Online: http://planning.lacounty.gov/assets/obj/anet/Main.html. Accessed: June 19, 2019.

[8] City of Diamond Bar California. Emergency Preparedness. Online: https://www.diamondbarca.gov/216/Emergency-Preparedness. Accessed: June 19, 2019.

[9] Emergency Network Los Angeles. Welcome to ENLA. Online: http://enla.org/. Accessed June 19, 2019.

[10] Emergency Network Los Angeles. About ENLA. Online: http://enla.org/about-enla/. Accessed June 19, 2019.

the City and all other agencies use ICS to aid in a standardized emergency response. At the local government level, a designated Emergency Operations Center (EOC) is used as the central location for gathering and disseminating information and coordinating all jurisdictional emergency operations within the area. During disasters, the City is required to coordinate emergency operations with the County of Los Angeles Operational Area and, in some instances, other local governments. Local agencies are a part of a broader Emergency Management Systems, overseen by the State of California's Southern Region Emergency Operations Center.

The City also relies on local disaster volunteer programs, including the following:

- **Community Emergency Response Team (CERT).** The County of Los Angeles provides emergency preparedness information and disaster training for use by individuals in their own neighborhoods in times of an emergency, as well as continuing training for Affiliated CERT volunteers to assist the City before, during, and after a disaster or emergency.
- **Los Angeles County Sheriff's Department Volunteer on Patrol Program.** The County of Los Angeles Volunteer program offers volunteers an opportunity to be involved with nearly every aspect of a station, including search and rescue, clerical duties, and youth volunteer opportunities.
- **FEMA Independent Study Program.** The Emergency Management Institute (EMI) of the The Federal Emergency Management Agency (FEMA) offers self-paced courses designed for people who have emergency management responsibilities and the general public.

## Fire Hazards

### *Wildland Fires*

Wildland fires occur in rural or heavily vegetated areas where abundant surface fuels are available to sustain a fire. Wildland fires that occur in the wildland-urban interface (WUI)—areas where undeveloped wildlands intermix with or transition into developed land—have the potential to greatly impact nearby structures and cities. Due to its setting amidst vegetated open space areas to the south and east, and the presence of open space areas interspersed among urban development, the Planning Area is at risk from wildland fires.

In recent years, the State of California has experienced increasingly severe wildfire seasons due to factors such as prolonged drought conditions and high winds, and the accumulation of fuel. In 2017 and 2018, devastating fires such as the Camp and Tubbs fires in northern California and the Thomas Fire in southern California demonstrated the profound impact wildland fires can have on populated areas. As the State prepares for more incidents as the WUI continues to expand and changes in climate patterns become more apparent, wildfire risk management at the local level will become more and more important.

The California Department of Forestry and Fire Protection (CAL FIRE) has mapped fire threat potential throughout California. CAL FIRE ranks fire threat according to the availability of fuel and the likelihood of an area burning (based on topography, fire history, and climate). The rankings include little or no fire threat, moderate, high, very high, and extreme fire threat. The Planning Area

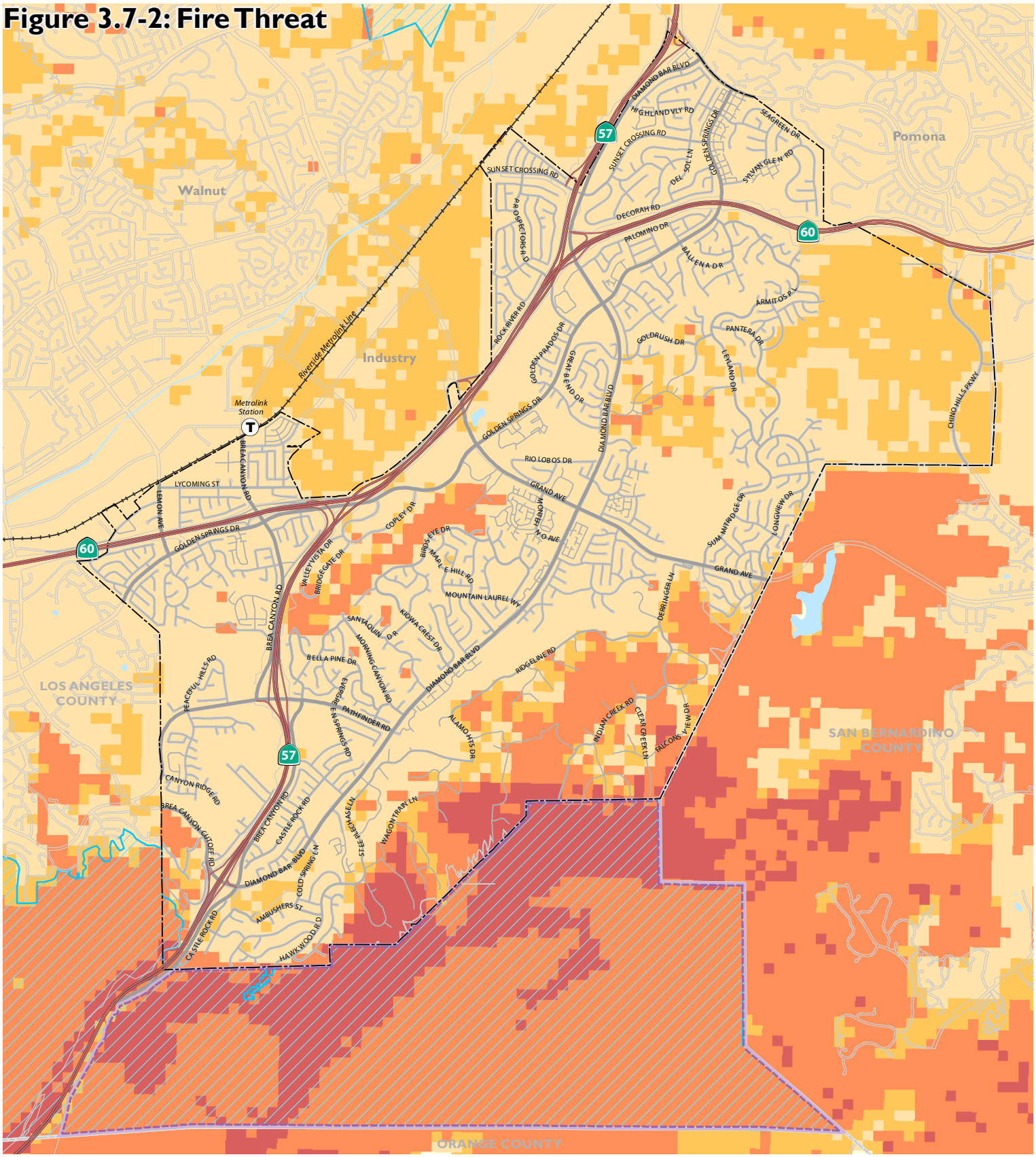
contains regions of very high fire severity, including most of the designated open space areas and much of the Country Estates subdivision.

Areas with higher frequency have included the SOI and surrounding open spaces outside of the city. Since the 1980s, wildfires have occurred in locations near Peaceful Hills Road, Eldertree Drive, Diamond Knoll Lane, and Wagon Train Lane in the southern portion of the city; in and around the SOI; and near to but outside of the northern city limits. This data is maintained and made publicly available through CAL FIRE's Fire and Resource Assessment Program for future reference. Fire threat levels, as defined by CAL FIRE, occurring within and around the Planning Area are depicted in Figure 3.7-2. Figure 3.7-3 highlights Very High Fire Severity Zones (VFHSZs) within both local and state responsibility areas.

The entirety of the City falls within a Local Responsibility Area (LRA). Unincorporated lands within the Planning Area are State Responsibility Areas, where fire management and suppression is conducted by CAL FIRE.

Chapter 9 of the California Building Code requires that all new structures install sprinklers and retain ample on-site storage of water to serve the system. Diamond Bar engineering standards require a minimum flow of water for fire protection in accordance with County of Los Angeles Fire Department, California Fire Code, and Insurance Services Office (ISO) standards.

# Figure 3.7-2: Fire Threat




**Fire Threat Level (Cal Fire)**

- Extreme Threat
- Very High Threat
- High Threat
- Moderate Threat
- Little or No Threat

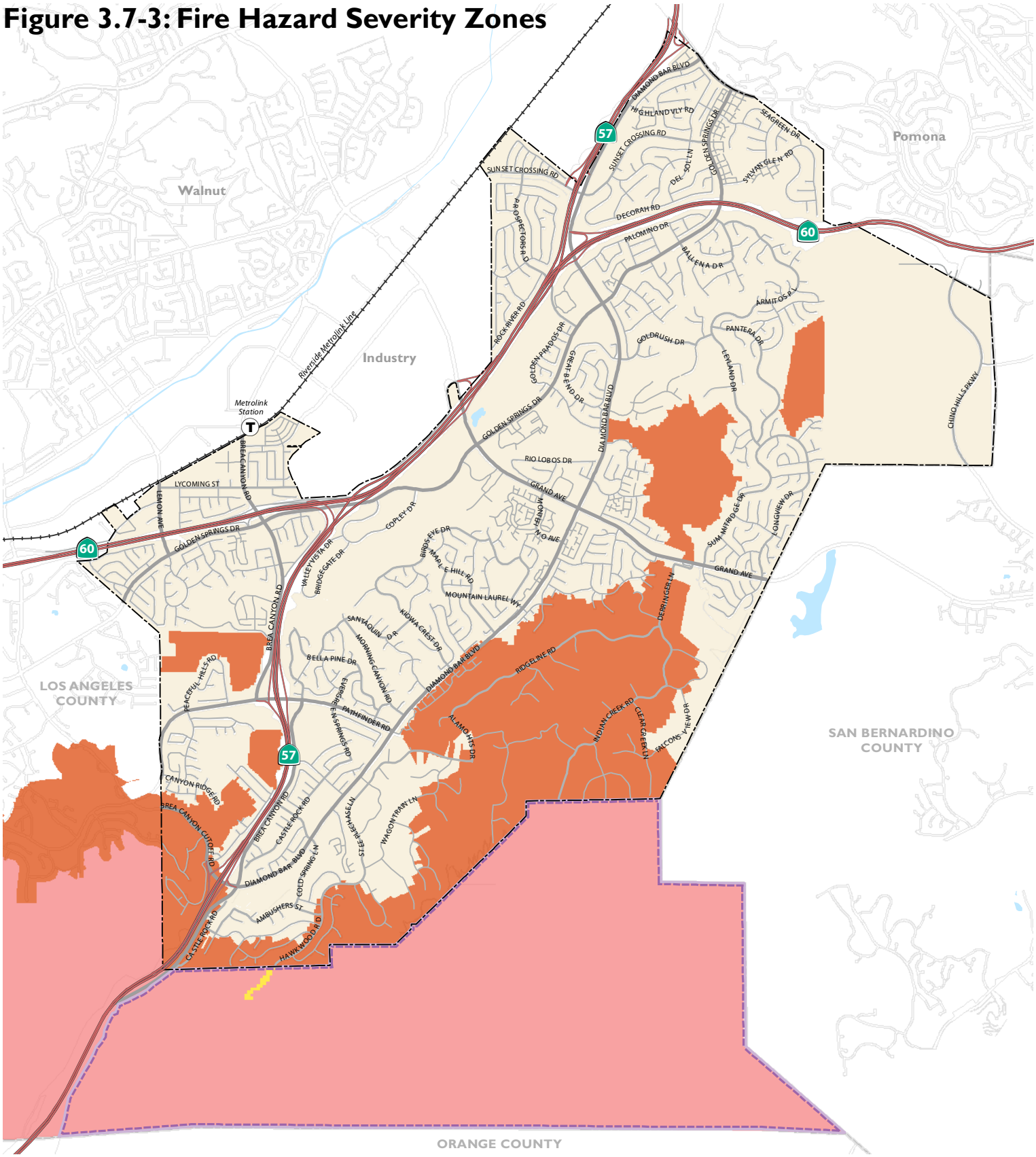
- Highways
- Ramps
- Major Roads
- Local Roads
- Railroads

- State Responsibility Area (SRA)
- Water Features
- City of Diamond Bar
- Sphere of Influence
- County Boundary

0 0.375 0.75 1.5
MILES

*Source: Fire Threat, Fire and Resources Assessment Program (FRAP), Cal Fire 2005; Los Angeles County GIS Data Portal, 2016; Dyett & Bhatia, 2019*

# Figure 3.7-3: Fire Hazard Severity Zones




**Fire Hazard Severity Zones**

*Local Responsibility Area (LRA)*

- Very High

*State Responsibility Area (SRA)*

- Very High
- High

- Highways
- Ramps
- Major Roads
- Local Roads
- Railroads

- Water Features
- City of Diamond Bar
- Sphere of Influence
- County Boundary

*Source: California Department of Forestry and Fire Protection (CAL FIRE), 2007 & 2009; Los Angeles County GIS Data Portal, 2016; Dyett & Bhatia, 2019*

0 0.375 0.75 1.5
MILES

### *Urban Fires*

Urban fires are fires that begin in urban centers. They are typically localized, but have the potential to spread to adjoining buildings, especially in areas where homes and/or business facilities are clustered closely together. Strong winds (such as the Santa Ana winds) that can easily spread fires are known to occur in the area. Other factors affecting urban fire risk and relative likelihood of loss of life or property include building age, height and use, storage of flammable material, building construction materials, availability of sprinkler systems, and proximity to a fire station and hydrants. Even with these risks, the Insurance Service Organization (ISO) gave the city a rating of three in 2000, which is a good rating for an urban area.[11] This rating takes into account natural risks as well as the provision of fire protection services.

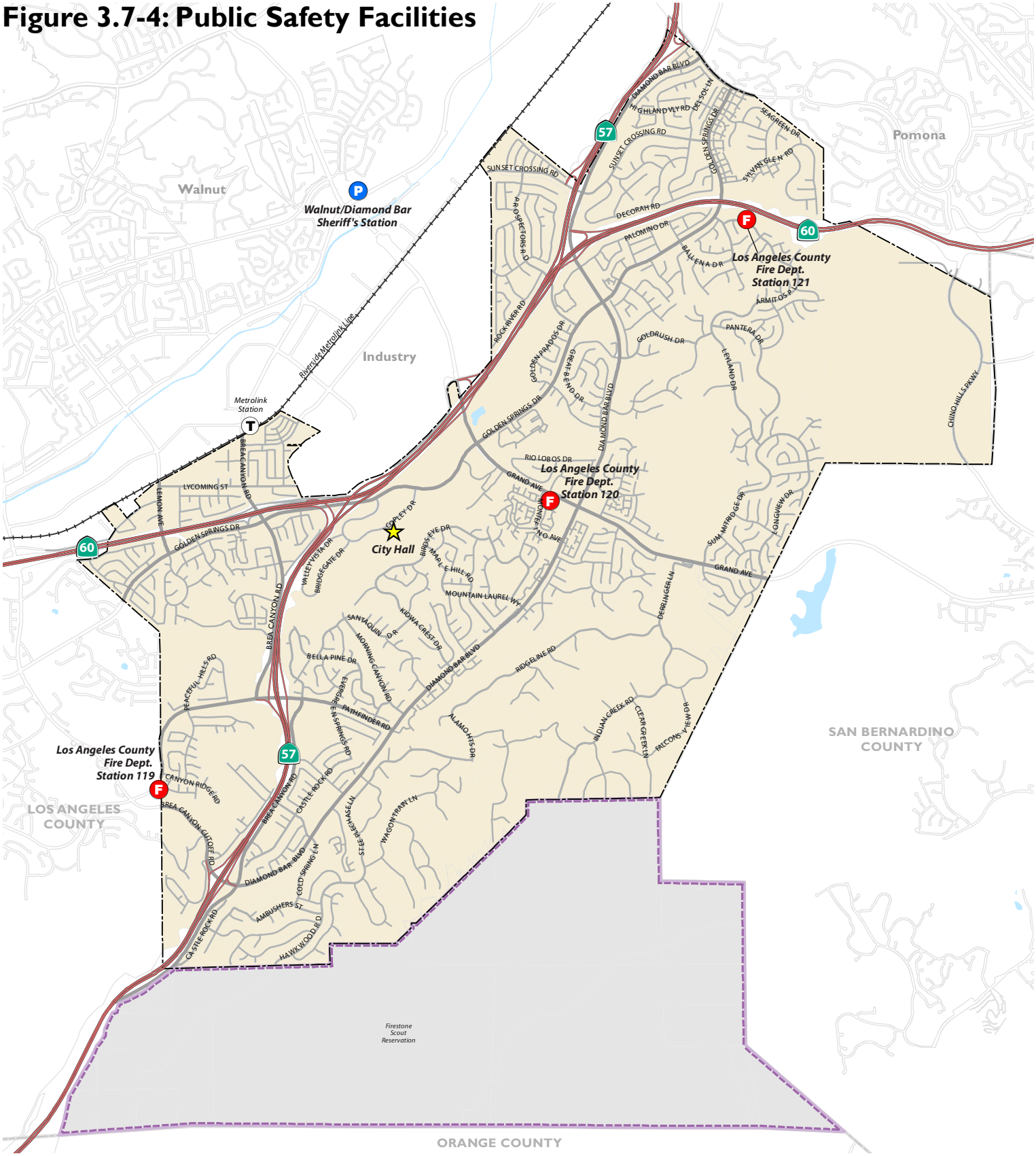
Urban fire risk in the city is mitigated in a number of ways, including through the enforcement of updated building and fire codes and the involvement of the Los Angeles County Fire Department in the development review process.

### *Fire Protection and Prevention*

The City is served by the County of Los Angeles Fire Department, and unincorporated portions of the Planning Area are served by the Los Angeles County Fire Department and CAL FIRE. The locations of the three fire stations that serve the Planning Area are shown in Figure 3.7-4. See Section 3.11 Public Services and Facilities for more detail.

[11] The ISO rating is from one to ten, with one being the best score reflecting the lowest risk.

# Figure 3.7-4: Public Safety Facilities




*Source: City of Diamond Bar 2019; Dyett & Bhatia, 2019*

In addition to fire protection, the service provider implements fire prevention programming. The County of Los Angeles' Fuel Modification Unit is responsible for approving landscape and irrigation plans for structures located in Fire Hazard Severity Zones. The goal of the Fuel Modification Unit is to create defensible space, which is a natural and/or landscaped area around a structure where the vegetation has been controlled, trimmed, or removed in order to reduce fire danger. Defensible space is necessary for effective fire protection of homes located within the Fire Hazard Severity Zones because it implements about 100 to 200 feet of defensible space near those homes. Additional fire prevention activities undertaken by the Los Angeles County Fire Department include conducting brush clearance (defensible space) inspections, releasing educational materials designed to help homeowners develop wildfire action plans and implement fire-resistance home retrofits, and running first responder training programs[12]. The Los Angeles County Fire Department works with the County of Los Angeles Department of Agricultural Commissioner/Weights and Measures, Weed Hazard and Pest Abatement Bureau on brush clearance.

## REGULATORY SETTING

### Federal Regulations

#### *Environmental Protection Agency*

The Federal Toxic Substances Control Act (1976) and the Resource Conservation and Recovery Act of 1976 (RCRA) established a program administered by the EPA for the regulation of the generation, transportation, treatment, storage, and disposal of hazardous waste. RCRA was amended in 1984 by the Hazardous and Solid Waste Act (HSWA), which affirmed and extended the "cradle to grave" system of regulating hazardous wastes. The use of certain techniques for the disposal of some hazardous wastes was specifically prohibited by the HSWA.

The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), commonly known as Superfund, was enacted by Congress on December 11, 1980. This law provided broad federal authority to respond directly to releases or threatened releases of hazardous substances that may endanger public health or the environment. CERCLA established requirements concerning closed and abandoned hazardous waste sites; provided for liability of persons responsible for releases of hazardous waste at these sites; and established a trust fund to provide for clean up when no responsible party could be identified. CERCLA also enabled the revision of the National Contingency Plan (NCP). The NCP provided the guidelines and procedures needed to respond to releases and threatened releases of hazardous substances, pollutants, or contaminants. The NCP also established the National Priorities List, which is a list of contaminated sites warranting further investigation by the EPA. CERCLA was amended by the Superfund Amendments and Reauthorization Act (SARA) on October 17, 1986.

[12] Los Angeles County Fire Department. Community Emergency Response Team. Online: https://www.lafd.org/join/volunteer/cert. Accessed June 19, 2019.

### *United States Department of Transportation (USDOT)*

The USDOT Office of Hazardous Materials Safety prescribes strict regulations for the safe transportation of hazardous materials, as described in Title 40, 42, 45, and 49 of the Code of Federal Regulations, and implemented by Title 17, 19, and 27 of the CCR. The USDOT Hazardous Materials Regulations (HMR) apply to persons who undertake transportation of hazardous materials. The Pipeline and Hazardous Materials Safety Administration (PHMSA) issues the HMR. PHMSA has also issued procedural regulations, including provisions on registration and public sector training and planning grants (49 CFR Parts 105, 106, 107, and 110). PHMSA's regulatory functions include issuing rules and regulations governing the safe transportation of hazardous materials and representing USDOT in international organizations and working to assure the compatibility of domestic regulations with the regulations of bodies such as the Federal Motor Carrier Safety Administration (FMCSA). The FMCSA issues regulations concerning highway routing 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. The Federal Railroad Administration (FRA) is authorized to regulate the transportation of hazardous materials via rail.

### *Federal Emergency Management Agency*

The primary mission of the Federal Emergency Management Agency (FEMA) is to reduce the loss of life and property and to protect the nation from all hazards, including natural disasters, acts of terrorism, and other man-made disasters, by leading and supporting a risk-based, comprehensive emergency management system of preparedness, protection, response, recovery, and mitigation. (6 U.S.C. § 313(b)).

### *Robert T. Stafford Disaster Relief and Emergency Assistance Act*

The Robert T. Stafford Disaster Relief and Emergency Assistance Act (Public Law 100-707) was signed into law on November 23, 1988 and amended the Disaster Relief Act of 1974 (Public Law 93-288). The Stafford Act constitutes the statutory authority for most Federal disaster response activities especially as they pertain to FEMA and FEMA programs.

### *Disaster Mitigation Act*

The Disaster Mitigation Act of 2000 (DMA2K) (Public Law 106-390) amended the Robert T. Stafford Disaster Relief and Emergency Assistance Act of 1988 to establish a Pre-Disaster Mitigation (PDM) program and new requirements for the federal post-disaster Hazard Mitigation Grant Program (HMGP). DMA2K encourages and rewards local and state pre-disaster planning. It promotes sustainability and seeks to integrate state and local planning with an overall goal of strengthening statewide hazard mitigation. This enhanced planning approach enables local, tribal, and state governments to identify specific strategies for reducing probable impacts of natural hazards such as floods, fire, and earthquakes. In order to be eligible for hazard mitigation funding after November 1, 2004, local governments are required to develop a Hazard Mitigation Plan that incorporates specific program elements of the DMA2K law.

### *Hazard Mitigation Planning and Hazard Mitigation Grant Program*

FEMA requires state, tribal, and local governments to develop and adopt hazard mitigation plans as a condition for receiving certain types of non-emergency disaster assistance, including funding for mitigation projects. Jurisdictions must update their hazard mitigation plans and re-submit them for FEMA approval every five years to maintain eligibility. Through the Hazard Mitigation Assistance (HMA) grant programs (Hazard Mitigation Grant Program, Pre-Disaster Mitigation, and Flood Mitigation Assistance), FEMA offers planning grants that support state, tribal, and local governments in developing and updating mitigation plans. The City has complied with this requirement with the creation of its own Natural Hazards Mitigation Plan (see Local Regulations, below, for a detailed description of this plan.)

### *Emergency Planning and Community Right-To-Know Act*

The Emergency Planning and Community Right-to-Know Act (EPCRA) of 1986 was included under SARA law and is commonly referred to as SARA Title III. EPCRA was passed in response to concerns regarding the environmental and safety hazards proposed by the storage and handling of toxic chemicals. EPCRA establishes requirements for federal, state, and local governments, tribes, and industry regarding emergency planning and Community Right-to-Know reporting on hazardous and toxic chemicals. SARA Title III requires states and local emergency planning groups to develop community emergency response plans for protection from a list of Extremely Hazardous Substances (40 CFR Appendix B). The Community Right-to-Know provisions help increase the public's knowledge of and access to information on chemicals at individual facilities, their uses, and their release into the environment.

### *Hazardous Materials Transportation Act*

The Hazardous Materials Transportation Act (HMTA) of 1975 was created to provide adequate protection from the risks to life and property related to the transportation of hazardous materials in commerce by improving regulatory enforcement authority of the Secretary of Transportation.

### *Occupational Safety and Health Administration (OSHA)*

With the Occupational Safety and Health Act of 1970, Congress created the Occupational Safety and Health Administration (OSHA) to assure safe and healthful working conditions for working men and women by setting and enforcing standards and by providing training, outreach, education, and assistance.

## State Regulations

### *California Code of Regulations*

#### Title 3

The California Code of Regulations (CCR) Title 3: Food and Agriculture regulates the storage and transportation of pesticides. Pesticides, or any container or equipment that holds or has held a pesticide, shall not be stored, handled, emptied, disposed of, or left unattended in such a manner or at any place where they may present a hazard to persons, animals (including bees), food, feed, crops or property.

#### Title 22

Hazardous substances are regulated by state and federal agencies in order to protect public health and the environment. Hazardous materials have certain chemical, physical, or infectious properties that threaten life, health, property, or environment.

#### Title 27

The California Department of Resources Recycling and Recovery (CalRecycle) and the SWRCB jointly issue regulations pertaining to waste disposal on land, including criteria for all waste management units, facilities, and disposal sites; documentation and reporting; enforcement, California Emergency Services Act.

The California Emergency Services Act (Government Code Chapter 7, Sections 8550-8668) was adopted in 1970. The act's purpose is to ensure that preparations within the state will be adequate to deal with the effects of natural, manmade, or war-caused emergencies. The act provides for emergency powers to be conferred upon the Governor and local executives; the establishment of the State Office of Emergency Services; the coordination and direction of State entities during an emergency, and mutual aid by the State and its departments and agencies, as well as political subdivisions.

### *California Environmental Protection Agency (CalEPA)*

The CalEPA has a major role in overseeing the management of hazardous materials and waste within California. CalEPA was created by the State of California to establish a cabinet-level voice for the protection of human health and the environment and to assure the coordinated deployment of State resources.

### *Accidental Release Prevention Law/Chemical Accident Release Prevention Program (CalARP)*

SB 1889 established the merging of federal and State of California programs governing the accidental airborne release of chemicals listed under Section 112 of the Clean Air Act. Effective January 1, 1997, CalARP replaced the previous California Risk Management and Prevention Program (RMPP) and incorporated the mandatory federal requirements. CalARP addresses facilities containing specified hazardous materials that, if involved in an accidental release, could

result in adverse off-site consequences. CalARP defines regulated substances as chemicals that pose a threat to public health and safety or the environment because they are highly toxic, flammable, or explosive. Within Los Angeles County, CalARP is administered by the County of Los Angeles Fire Department.

### *California Health and Safety Code*

#### Hazardous Materials Disclosure Program

The California Health and Safety Code Chapter 6.95 includes provisions for Hazardous Materials Release Response Plans and Inventory. The intent of the code is to protect the public health and safety and the environment; it is necessary to establish business and area plans relating to the handling and release or threatened release of hazardous materials. It calls for the establishment of a statewide environmental reporting system. Within Los Angeles County, the Hazardous Materials Disclosure Program provides threshold quantities for regulated hazards substances. When the indicated quantities are exceeded, a hazardous materials inventory and contingency plan is required pursuant to the regulations.

#### Aboveground Petroleum Storage Act

Congress requires EPA Region 9 to make RMP information available to the public through the EPA's Envirofacts Data Warehouse. The Envirofacts Data Warehouse is considered the single point of access to select EPA environmental data. California Health and Safety Code (H&SC) Section 25270, Aboveground Petroleum Storage Act, requires registration and spill prevention programs for above ground storage tanks that store petroleum. In some cases, Aboveground Storage Tanks (ASTs) for petroleum may be subject to groundwater monitoring programs that are implemented by the Regional Water Quality Control Boards (RWQCBs) and the SWRCB.

### *State Underground Storage Tank Program*

State laws also regulate Underground Storage Tanks (USTs) and ASTs containing hazardous substances. These laws are primarily found in the Health and Safety Code, and, combined with CCR Title 23, comprise the requirements of the State UST program. The laws contain requirements for UST permitting, construction, installation, leak detection monitoring, repairs and corrective actions and closures.

### *Cortese List*

The Cortese List refers to provisions in Government Code Section 65962.5. This Section requires the DTSC, State Department of Health Services, SWRCB, and designated local enforcement agencies to compile and update lists of hazardous materials sites under their purview as specified in the code. The "Cortese List" consists of the information provided by these agencies under the code (See Table 3.7-1, above, for a detailed inventory of all sites within the Planning Area to whom Government Code Section 65962.5 applies.)

### *State of California Emergency Plan, 2009*

California has developed an emergency response plan to coordinate emergency services provided by federal, State, and local governments and private agencies. Response to hazardous material incidents is one part of this plan. The plan is managed by the California Emergency Management Agency, which coordinates the responses of other agencies, including CalEPA, the California Highway Patrol, California Department of Fish and Wildlife (CDFW), and RWQCB.

### *Office of Environmental Health Hazard Assessment*

The State of California Office of Environmental Health Hazard Assessment (OEHHA) oversees implementation of many public health-related environmental regulatory programs within CalEPA, including implementing the provisions of the Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65). Proposition 65 requires the governor to publish, at least annually, a list of chemicals known to the state to cause cancer or reproductive toxicity. The proposition was intended to protect California citizens and the state's drinking water sources from chemicals known to cause cancer, birth defects, or other reproductive harm and to inform citizens about exposures to such chemicals.

### *The California Department of Toxic Substances Control (DTSC)*

Within CalEPA, the California DTSC has primary regulatory responsibility, with delegation of enforcement to local jurisdictions that enter into agreements with the state agency, for the management of hazardous materials and the generation, transport, and disposal of hazardous waste under the authority of the Hazardous Waste Control Law. Since August 1, 1992, the DTSC has been authorized to implement the State's hazardous waste management program for the CalEPA.

The DTSC is responsible for compiling a list of hazardous materials sites pursuant to Government Code Section 65962.5, which includes five categories:

1. Hazardous waste facilities subject to corrective action pursuant to Section 25187.5 of the health and safety code;
2. Land designated as "hazardous waste property" or "border zone property;"
3. Properties with hazardous waste disposals on public land;
4. Hazardous substance release sites selected for (and subject to) a response action; and
5. Sites included in the Abandoned Site Assessment Program.

### *California Department of Transportation*

The California Department of Transportation (Caltrans) manages more than 50,000 miles of California's highway and freeway lanes, provides inter-city rail services, permits more than 400 public-use airports and special-use hospital heliports, and works with local agencies. Caltrans is also the first responder for hazardous material spills and releases that occur on highway and freeway lanes and inter-city rail services.

### *State Water Resources Control Board*

The Porter-Cologne Water Quality Control Act of 1969 established the SWRCB and divided the state into nine regional basins, each with a RWQCB. The SWRCB is the primary state agency responsible for protecting the quality of the state's surface and groundwater supplies, while the regional boards are responsible for developing and enforcing water quality objectives and implementation plans. The Planning Area is within the jurisdiction of Los Angeles RWQCB.

The act authorizes the SWRCB to enact state policies regarding water quality in accordance with the U.S. EPA Clean Water Act (CWA) section 303. The SWRCB regulates the handling, storage, and disposal of hazardous substances in construction projects. Permits and/or other action by the SWRCB may be required if contamination of water or soils occurs during the construction of the Proposed Project. In addition, the act authorizes the SWRCB to issue Waste Discharge Requirements (WDRs) for projects that would discharge to State waters.

### *California Multi-Hazard Mitigation Plan*

The State of California Multi-Hazard Mitigation Plan, also known as the State Hazard Mitigation Plan (SHMP), was approved by FEMA in 2013. The SHMP outlines present and planned activities to address natural hazards. The adoption of the SHMP qualifies the State of California for federal funds in the event of a disaster under the DMA2K. The SHMP provides goals and strategies which address minimization of risks associated with natural hazards and response to disaster situations.

### *California Strategic Fire Plan, 2010*

The California Strategic Fire Plan is a statewide plan developed by the State Board of Forestry and Fire Protection and CAL FIRE to achieve a more resilient natural and built environment that is more resistant to the occurrence and effects of wildland fire through local, State, federal, and private partnerships. The plan focuses on fire suppression and prevention efforts, including hazard and risk assessment, land use planning, cooperation between fire protection jurisdictions, fire-resistant development, as well as post-fire recovery efforts. Land use policies include providing for defensible space, fuel management, development review, and fire-resistant construction.

### *California Public Utilities Commission (CPUC) Wildfire Regulations*

CPUC works to reduce the probability of wildfires associated with utility operation. CPUC approves wildfire mitigation plans submitted by utilities and transmissions owners[13], issues rules and regulations regarding utility operation and maintenance for wildfire prevention, and identifies locations across California that are at high risk of power line fires[14].

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[13] California Public Utilities Commission. Utility Wildfire Mitigation Plans (SB 901). Online: https://www.cpuc.ca.gov/SB901/. Accessed: June 19, 2019.

[14] California Public Utilities Commission. CPUC Fire Safety Rulemaking Background. Online: https://www.cpuc.ca.gov/firethreatmaps/. Accessed: June 19, 2019.

### *California Senate Bill No. 1028*

Signed into law in 2016, SB 1028 requires electrical corporations, local publicly owned electric utilities, and electrical cooperatives to construct, maintain, and operate electrical lines and equipment in a manner that minimizes the risk of catastrophic wildfire. Electrical corporations are required to annually prepare a wildfire mitigation plan, which must be submitted for review by the Public Utilities Commission, and must identify whether the installation of any overhead electrical lines and equipment would pose a significant risk of catastrophic wildfire in any portion of the geographic area where the utility's lines exist. If any area of significant risk is found, the utility or electrical cooperative is required to gain approval for wildfire mitigation measures from the Public Utilities Commission[15].

### *Safe School Plan (California Education Code Sections 32282 et seq.)*

This statute requires public schools to prepare a school safety plan, which includes routine and emergency disaster procedures and a school building disaster plan. The plan can be amended as needed and shall be evaluated at least once a year to ensure that the comprehensive school safety plan is properly implemented.

### *Carpenter-Presley-Tanner Hazardous Substance Account Act*

The Carpenter-Presley-Tanner Hazardous Substance Account Act (HSAA), which is modeled after CERCLA, imposes liability for hazardous substance removal or remedial actions and requires the DTSC to adopt, by regulation, criteria for the selection and for the priority ranking of hazardous substance release sites for removal or remedial action under the act.

### *Public Resources Code 21151.4*

Public Resources Code 21151.4 regulates hazardous materials near schools. Public Resources Code Section 21151.4 prohibits the certification of an EIR for a project involving the construction or alteration of a facility that might reasonably be anticipated to emit hazardous air emissions or handle extremely hazardous air emissions in a quantity greater than a certain threshold, within one-quarter mile of a school.

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[15] California Legislative Information, 2016. SB-1028 Electrical corporations: local publicly owned electric utilities: electrical cooperatives: wildfire mitigation plans. Online: https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201520160SB1028. Accessed June 19, 2019

## Local Regulations

### *CalEPA's Unified Program*

In 1993, Senate Bill 1082 gave CalEPA the authority and responsibility to establish a unified hazardous waste and hazardous materials management and regulatory program, commonly referred to as the Unified Program. The purpose of this program is to consolidate and coordinate six different hazardous materials and hazardous waste programs, and to ensure that they are consistently implemented throughout the state. CalEPA oversees the Unified Program with support from the DTSC, RWQCBs, the OES, and the State Fire Marshal.

State law requires county and local agencies to implement the Unified Program. The agency in charge of implementing the program is called the Certified Unified Program Agency (CUPA). The Health Hazardous Materials Division of the Los Angeles County Fire Department is the designated CUPA for the county[16].

### *Los Angeles County Fire Department Fuel Modification Plans*

Fuel Modification Plans have been required in Los Angeles County since 1996. Fuel modification plans are required within areas designated as a Fire Hazard Severity Zone within the State Responsibility Area or Very High Fire Hazard Severity Zones within the Local Responsibility Area[17]. Within these regions, the County of Los Angeles Fire Department requires approval of a Fuel Modification Plan is for all new construction, 50% or more remodels, construction of certain outbuildings and accessory structures over 120 square feet, parcel splits, and subdivisions[18].

### *Los Angeles County Hazardous Materials Program*

The Plan requires that businesses that handle, store, or generate hazardous materials obtain a hazardous material handler permit and prepare risk management plans according to the amount of hazardous material on site[19]. This program involves inspection of facilities that generate hazardous waste, evaluation of hazardous waste generating industries, investigation of reports of illegal hazardous waste disposal, and response to emergency hazardous chemical spills. Compliance with the Hazardous Materials Handler Permit Requirements would ensure that all hazardous

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[16] Public Works Los Angeles County. Los Angeles County Certified Unified Program Agency (CUPA). Online: https://dpw.lacounty.gov/epd/UST/cupa.cfm. Accessed: June 19, 2019.

[17] Los Angeles County, 2015. Los Angeles County General Plan Chapter 12: Safety Element. Online: http://planning.lacounty.gov/assets/upl/project/gp_final-general-plan-ch12.pdf. Accessed June 19, 2019.

[18] Los Angeles County Fire Department. Fuel Modification Section. Online: https://www.fire.lacounty.gov/category/fuel-modification-section/. Accessed: June 19, 2019.

[19] County of Los Angeles Fire Department. Hazardous Materials Program. Online: https://www.fire.lacounty.gov/hhmd-2/hazardous-materials-program-2/. Accessed: June 19, 2019.

wastes generated by existing and proposed uses are properly handled, treated, stored, and disposed[20].

### *Los Angeles County Household Hazardous Waste Collection Program*

The County's Household Hazardous Waste Collection Program provides no-cost waste disposal services for any products labeled as toxic, poisonous, combustible, corrosive, irritant, or flammable[21].

### *Los Angeles County Code (LACC), Title 11, Division 4*

Title 11, Division 4 of the LACC established the County's underground storage tank (UST) program in 1983. The goal of the Underground Storage Tank Program is to protect the public, environment, and UST owners and operators by ensuring that UST facilities are permitted, designed, operated, and closed in compliance with local, state, and federal regulations. Currently, the UST Program permits and inspects underground storage tanks within the unincorporated areas of Los Angeles County and 77 cities, including Diamond Bar[22].

### *Site Remediation Oversight Program*

The Site Mitigation Unit (SMU) of the Health Hazardous Materials Division of the Los Angeles County Fire Department provides corrective active and voluntary oversight remediation of contaminated sites, as well as approval of closure plans within the jurisdiction of the Los Angeles County Unified Program Agency[23].

### *Los Angeles County Operational Area Emergency Response Plan*

The purpose of the Los Angeles County Operational Area Emergency Response Plan (OAERP) is to increase cooperation and coordination between relevant governmental agencies and jurisdictions in order to increase efficiency and minimize losses in the event of an emergency or disaster[24]. The OAERP establishes the Operational Area (OA) emergency organization, identifies departmental responsibilities, and specifies policies and general procedures for addressing emergencies impacting the OA. Further, this plan provides for the coordination of emergency

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[20] City of Azusa, 2015. Azusa TOD Specific Plan Draft EIR: 4.7 Hazards and Hazardous Materials. Online: https://www.ci.azusa.ca.us/DocumentCenter/View/29998/4_7_Hazards?bidId=. Accessed: June 19, 2019.

[21] Los Angeles County Public Works. HHW Collection Program. Online: https://dpw.lacounty.gov/epd/hhw/. Accessed: June 19, 2019.

[22] Los Angeles County Public Works. Underground Storage Tank (UST) Program. Online: https://pw.lacounty.gov/epd/ust/. Accessed: June 19, 2019.

[23] County of Los Angeles Fire Department Health Hazards Materials Division, 2009. Compliance Guide for Hazardous Wastes and Materials. Online: https://www.fire.lacounty.gov/wp-content/uploads/2016/11/HHMD-Compliance-Guidance-Document-2-1.pdf. Accessed: June 19, 2019.

[24] Los Angeles County Flood Control District, 2015. Draft Program Environmental Impact Report: 3.7 Hazards and Hazardous Materials. Online: https://dpw.lacounty.gov/LACFCD/ewmppeir/docs/3.7%20Hazards.pdf. Accessed: June 19, 2019.

operations plans of agencies/jurisdictions. The OAERP conforms to the requirements of the National Incident Management System and the California Standardized Emergency Management System. The updated OAERP was adopted in 2011.

### *Los Angeles County Fire Department Wildfire Action Plan*

Adopted in 2009, the Wildfire Action Plan contains guidelines that recommend fire prevention measures such as creating defensible space and conducting fire-resistance retrofits in homes. The plan provides residents with information regarding emergency preparedness[25].

### *Los Angeles County Department of Public Health*

The County's Public Health Department administers programs pertaining to public and environmental health and protection. Initiatives include the Childhood Lead Poisoning Prevention Program, groundwater protection, and toxicology and environmental assessment[26].

### *Los Angeles County General Plan*

The Los Angeles County 2035 General Plan provides guidance and a policy framework for how and where the unincorporated county will develop through 2035. The General Plan contains land use, air quality, conservation and natural resources, and safety elements. The General Plan addresses the County's regulatory approach to geotechnical, flood, and fire hazards, as well as emergency response[27].

### *Los Angeles County Code of Ordinances*

Title 11 of the County's Code of Ordinances addresses hazards including household lead exposure, health hazard control at industrial facilities, hazardous oil well machinery, release of hazardous substances, and hazardous waste control[28].

### *City of Diamond Bar Natural Hazards Mitigation Plan (NHMP)*

Originally adopted in 2004, the City of Diamond Bar's NHMP established the City's strategy for lessening community impacts in the occurrence of a natural hazard event. The plan identifies potential natural hazards, the extent of risk posed, Diamond Bar's vulnerability to these hazards, and the action the City will take to mitigate the potential loss and impact of the hazards.

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[25] Los Angeles County Flood Control District, 2015. Draft Program Environmental Impact Report: 3.7 Hazards and Hazardous Materials. Online: https://dpw.lacounty.gov/LACFCD/ewmppeir/docs/3.7%20Hazards.pdf. Accessed: June 19, 2019.

[26] County of Los Angeles Public Health. Online: http://www.publichealth.lacounty.gov/eh/. Accessed: June 19, 2019.

[27] Los Angeles County, 2015. Los Angeles County General Plan Chapter 12: Safety Element. Online: http://planning.lacounty.gov/assets/upl/project/gp_final-general-plan-ch12.pdf. Accessed June 19, 2019.

[28] County of Los Angeles. Los Angeles County Code of Ordinances. Online: https://library.municode.com/ca/los_angeles_county/codes/code_of_ordinances?nodeId=TIT11HESA_DIV1HECO_CH11.20HO_PT2RE. Accessed: June 19, 2919

The NHMP includes resources and information to assist City residents, public and private sector organizations, and others interested in participating in planning for natural hazards. The mitigation plan provides a list of activities that may assist Diamond Bar in reducing risk and preventing loss from future natural hazard events. The goals of the NHMP include:

- Implement activities that assist in protecting lives by making homes, businesses, infrastructure, critical facilities, and other property more resistant to losses from natural hazards;
- Reduce losses and repetitive damages for chronic hazard events while promoting insurance coverage for catastrophic hazards;
- Improve hazard assessment information to make recommendations for discouraging new development in high hazard areas and encouraging preventative measures for existing development in areas vulnerable to natural hazards;
- Develop and implement education and outreach programs to increase public awareness of the risks associated with natural hazards;
- Provide information on educational tools, partnership opportunities, and funding resources to assist in implementing mitigation activities;
- Balance natural resource management and land use planning with natural hazard mitigation to protect life, property, and the environment;
- Preserve, rehabilitate, and enhance natural systems to serve natural hazard mitigation functions;
- Strengthen communication and coordinate participation among and within public agencies, citizens, non-profit organizations, business, and industry to gain a vested interest in implementation;
- Encourage leadership within public and private sector organizations to prioritize and implement local and regional hazard mitigation activities;
- Establish policy to ensure mitigation projects for critical facilities, services, and infrastructure; strengthen emergency operations by increasing collaboration and coordination among public agencies, non-profit organizations, business, and industry; and
- Coordinate and integrate natural hazard mitigation activities, where appropriate, with emergency operation plans and procedures[29].

[29] City of Diamond Bar, 2013. Draft Environmental Impact Report: General Plan and Zoning Amendment No. PL2013-227.

*Diamond Bar Municipal Code*

The Diamond Bar Municipal Code (DBMC) discusses general hazards under Title 8 – Health and Safety, Chapter 8.04 – General Hazards. The purpose of Chapter 8.04 is to provide minimum standards to safeguard life, limb, safety, and public welfare by requiring protections from hazardous bodies of water, wells, and other defined excavations and abandoned chests, not currently covered by state statutes. The DBMC also discusses fire safety and wildlife fire under Title 16 – Fire Safety, Chapter 16.00 – Fire Code[30],[31].

# Impact Analysis

## SIGNIFICANCE CRITERIA

For the purposes of this EIR, a significant adverse impact would occur if implementation of the Proposed Project would:

**Criterion 1:** **Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials;**

**Criterion 2:** **Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment;**

**Criterion 3:** **Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school;**

**Criterion 4:** **Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would create a significant hazard to the public or the environment;**

**Criterion 5:** **Be located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public uses airport, and would result in a safety hazard or excessive noise for people residing or working in the project area;**

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[30] City of Diamond Bar, 2013. Draft Environmental Impact Report: General Plan and Zoning Amendment No. PL2013-227. https://library.municode.com/ca/diamond_bar/codes/code_of_ordinances?nodeId=CICO_TIT8HESA_CH8.00EMOR_S8.00.010PU

[31] City of Diamond Bar. Diamond Bar Municipal Code. Online: https://library.municode.com/ca/diamond_bar/codes/code_of_ordinances?nodeId=CICO_TIT8HESA_CH8.00EMOR_S8.00.010PU. Accessed: June 19, 2019.

**Criterion 6:** **Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan; or**

**Criterion 7:** **Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires.**

**Criterion 8:** **Be located in or near State Responsibility Areas or lands classified as Very High Fire Hazard Severity Zones and would substantially impair an adopted emergency response plan or emergency evacuation plan;**

**Criterion 9:** **Be located in or near State Responsibility Areas or lands classified as Very High Fire Hazard Severity Zones and would exacerbate fire risks due to slope, prevailing winds, and other factors, thereby exposing project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire;**

**Criterion 10:** **Be located in or near State Responsibility Areas or lands classified as Very High Fire Hazard Severity Zones and would require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines, or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment; or**

**Criterion 11:** **Be located in or near State Responsibility Areas or lands classified as Very High Fire Hazard Severity Zones and would expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes.**

## METHODOLOGY AND ASSUMPTIONS

This analysis considers the range and nature of foreseeable hazardous materials use, storage, and disposal resulting from implementation of the Proposed Project, and identifies the primary ways that these hazardous materials could expose individuals or the environment to health and safety risks. The analysis included a qualitative evaluation of impacts associated with the potential presence of hazardous materials or hazards in the Planning Area, and an evaluation of the extent to which land use changes suggested within the Proposed Project could enable the development of industrial uses that commonly employ or generate hazardous materials or waste in their production processes, as well as development in or around Very High Fire Hazard Severity Zones. This analysis is based on a review of materials ranging from the Envirostor and Geotracker databases, hazard mapping, and relevant plans and regulations at the federal, State, and local levels.

## IMPACTS

### Impact 3.7-1 Implementation of the Proposed Project would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials. (*Less than Significant*)

Potential new development anticipated by the Proposed Project could include the development of land uses, including residential, mixed-use, recreational, light industrial, commercial, and office uses, that may require the routine use, transport, and disposal of hazardous material and waste, such as fuel, landscaping chemicals, and cleaning supplies, within the Planning Area. Additionally, future construction activities associated with buildout of the development anticipated by the Proposed Project may generate hazardous materials and waste, such as fuels and oils from construction equipment and vehicles. These hazardous materials would be subject to the federal, State, and local regulations regarding the use, transportation, disposal, and accidental release of hazardous materials.

As described in the Regulatory Setting, federal and State regulations require adherence to specific guidelines regarding the use, transportation, disposal, and accidental release of hazardous materials. Regulations associated with using, transporting, or disposing of hazardous materials include RCRA, EPCRA, HMTA, California Health and Safety Code, CCR Title 22, CCR Title 27, SB 1889, and the Consolidated Fire Code. Locally, facilities handing hazardous materials are subject to routine inspections by the Los Angeles County Fire Department[32], further minimizing foreseeable risks of an accident that could create a hazard to the public or environment.

The Proposed Project could allow the siting of new housing units (sensitive receptors) within the vicinity of highways that routinely transport fuels and other hazardous materials. However, the number of new sensitive receptors would be relatively limited. USDOT, Caltrans, and the California Highway Patrol regulate and manage routine transport of hazardous materials on SR-57 and SR-60, the nearest highway to the Planning Area. Existing schools within the Planning Area would not be subjected to greater risk of exposure to routine transport of hazardous materials on highways, nor would the new residents. Because the Proposed Project does not result in significant land use changes or exposure to transport or use of hazardous materials along these corridors, there is very low risk of exposure, even among sensitive groups.

Transportation of hazardous waste in connection with construction and operations of future development anticipated by the Proposed Project would be subject to USDOT's requirements for hazardous materials transport and would require carriers to register with the DTSC. Policies in the Proposed Project seek to lessen the risk from transport through the Planning Area by discouraging traffic from SR-57 and SR-60 from using Diamond Bar roadways as alternatives to the freeway, minimizing truck traffic through residential areas, and promoting safe and efficient goods distribution throughout the city. These measures would reduce the amount of truck traffic on local roads near residential areas and protect the public from damaged fuel lines and hazardous cargos.

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[32] County of Los Angeles Fire Department. Hazardous Materials Program. Online: https://www.fire.lacounty.gov/hhmd-2/hazardous-materials-program-2/. Accessed: June 19, 2019.

Meanwhile, policies in favor of advocating for low-emission transportation technology could ultimately reduce public exposure to potentially hazardous air pollutants.

In compliance with existing regulations, businesses handling or storing certain amounts of hazardous materials would be required to prepare a hazardous materials business plan to inventory hazardous materials on-site and provide information on safe use and emergency response regarding such materials. Businesses would also be required to implement health and safety policies and procedures regarding hazardous materials used. For future development where employees would be expected to handle or work around hazardous materials, compliance with federal and State laws would be required. Existing regulations also specify storage areas for hazardous materials, designed to prevent accidental release and to protect against moderate explosion hazard, high fire or physical hazard, or health hazards. Additionally, future projects anticipated by the Proposed Project would be required to complete all applicable environmental review processes and to conform with environmental regulations related to new construction, and hazardous materials use and storage.

There are currently no permitted hazardous waste facilities in the Planning Area. Implementation of the applicable federal, State, and local regulations and policies would serve to lessen the risk of death, injury, and/or property loss associated with the transport, use, or disposal of hazardous materials by promoting safe handling and storage, documentation and information sharing, and appropriate emergency planning and response. In addition, compliance with Proposed Project's policies would further ensure safe practices regarding hazardous materials. Therefore, compliance with the Proposed Project's policies and federal and State regulations will ensure the impact of routine use, transport, and disposal of hazardous materials associated with implementation of the Proposed Project would be less than significant.

*Proposed General Plan Policies that Address the Impact*

<u>Public Safety</u>

PS-G-4. Enforce applicable local, County, State, and federal regulations pertaining to the manufacture, use, transportation, storage and disposal of hazardous materials and wastes in the City with the primary focus on preventing injury, loss of life, and damage to property resulting from the potential detrimental effects (short- and long-term) associated with the release of such substances.

PS-P-24. Work with the County of Los Angeles Fire Department to maintain and enforce State regulations that require proper storage and disposal of hazardous materials to reduce the likelihood of leakage, explosions, or fire, and to properly contain potential spills from leaving the site.

PS-P-28. Promote public awareness and participation in household hazardous waste management, solid waste, and recycling programs.

PS-P-38. Maintain, review, and update Diamond Bar's Local Hazard Mitigation Plan every five years, taking into account new hazard conditions in the Planning Area and new emergency management techniques.

PS-P-39. Adopt, implement and update as necessary the Local Hazard Mitigation Plan to develop strategies to address changing risks from flood, drought, fire, landslides, seismic activity, hazardous materials, and other potential hazards, including strategies related to monitoring, emergency preparedness, development policies, conservation, vulnerable populations, and community resilience.

PS-P-42. Continue to disseminate public information and alerts regarding the nature and extent of possible natural and man-made hazards, resources identifying measures residents and businesses can take to prepare for and minimize damage resulting from these hazards, citywide response plans, and evacuation routes.

Circulation

CR-G-10. Discourage traffic from SR-57 and SR-60 from using Diamond Bar roadways as alternatives to the freeway.

CR-G-15. Minimize quality of life impacts of goods movement in and through the city while facilitating the movement of goods destined for locations within the city.

CR-G-16. Facilitate safe and efficient movement, loading, and unloading (i.e. pick-up and delivery) of goods at destinations within the city.

CR-P-62. Revise the designation of truck routes to minimize truck traffic through or near residential areas. Maintain truck routes with signage between industrial areas and freeway interchanges to discourage truck travel through residential neighborhoods, and provide truck route information to truck routing software providers.

CR-P-64. Continue prohibiting trucks heavier than 5 tons from operating on designated residential streets, except for emergency, maintenance, residential moving trucks, and transit vehicles, to maintain pavement integrity.

CR-P-73. Advocate for clean truck technology or smaller vehicles with lower emission rates.

*Mitigation Measures*

None required.

### Impact 3.7-2 Implementation of the Proposed 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. (*Less than Significant*)

The Proposed Project does not propose future uses that pose a significant hazard to the public. Major land use changes are expected in the Proposed Project's four focus areas, which are intended to provide opportunities for infill development incorporating housing, employment, and recreation. Within this low-risk variety of uses, new developments that utilize hazardous chemicals, such as dry cleaners or gas stations, could result in some potential for upset and accident conditions involving the release of hazardous materials into the environment. Any individual projects under the Proposed Project for which there could be potential significant impacts related to hazards would require a project-level environmental review at the time they are proposed.

New development anticipated by the Proposed Project could also increase the risk of potential upsets of routinely used hazardous materials, such as a potential increase in the use of household cleaners and landscaping chemicals, but, as discussed in Impact 3.7-1 above, these would not be present in sufficient quantities to pose a significant risk to the public and must be used in accordance with all applicable laws and regulations.

Although the risk of upset and accident conditions involving the release of hazardous materials into the environment cannot be completely eliminated, it can be reduced to a manageable level. Existing regulations at the federal, State, and local levels serve to minimize the potential for upset during routine transportation, use, and disposal. Additionally, regulations are in place to minimize the risk of upset or accident involving sites that have previously been contaminated by hazardous substances. Given existing regulations and programs and the Proposed Project's policies that address the potential for hazardous materials upsets and promote the ability of emergency services to respond to incidents, impacts associated with the release of hazardous materials into the environment would be less than significant.

*Proposed General Plan Policies that Address the Impact*

Proposed General Plan Goals PS-P-24 and PS-P-42, as listed under Impact 3.7-1, would help reduce upset and accident conditions potentially involving the release of hazardous materials into the environment, along with the following policies.

<u>Public Safety</u>

PS-P-27. Work with the County of Los Angeles Fire Department and other State and federal agencies to ensure adequate emergency response for hazardous materials incidents.

PS-P-40. Continue to coordinate the City's emergency preparedness and response plans and operations with the State Office of Emergency Management, Los Angeles County, schools, and other neighboring jurisdictions.

PS-P-41. Maintain and expand as necessary community emergency preparedness resources including personnel, equipment, material, specialized medical and other training, and auxiliary communications.

PS-P-43. Require all City staff to be adequately trained to respond to emergency situations, and conduct regular emergency preparedness drills with local organizations including the Los Angeles County fire and Sheriff's departments.

PS-P-44. Leverage pre- and post-disaster assistance programs to support resilient planning, mitigation, and reconstruction strategies that consider future climate conditions, such as the California Governor's Office of Emergency Services' Hazard Mitigation Grant Program and California Disaster Assistance Act.

*Mitigation Measures*

None required.

### Impact 3.7-3 Implementation of the Proposed Project would not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school. (*Less than Significant*)

Development anticipated by the Proposed Project could result in land uses that would be reasonably expected to handle hazardous materials or generate hazardous emissions. Under the land use designations of the Proposed Project, there could be a range of land uses potentially allowed within a quarter-mile of existing schools. The Proposed Project does not propose construction of any new schools in the Planning Area.

The most intense uses allowed under the Proposed Project, under the Light Industrial designation, include manufacturing, distribution, research and development, business support services, and commercial uses requiring more land area than is available under the General Commercial or Office designations. One school, Walnut Elementary, falls within a quarter mile of this land use designation. The Proposed Project does not expand the industrial land use designations, and would therefore not increase school exposure to hazardous materials. Locations of the fourteen existing schools within the Planning Area are depicted in Figure 3.7-5.

Individual users of hazardous materials would continue to be regulated by local disclosure, permitting, and notification requirements of the "Disclosure of Hazardous Materials" program consistent with all federal, State, and local laws. Public schools are also required to evaluate and potentially amend their school safety plan on an annual basis as described in greater detail in the Regulatory Setting discussion above. See also Impacts 3.7-1, and 3.7-2.

In the case that new schools or alterations to existing schools would be required in the future, the siting of schools, including existing facilities and upgrading construction projects, would be regulated by the California Department of Education; and new facilities would not be constructed within a quarter mile of facilities emitting or handling materials consistent with California Department of Education requirements. In addition, Proposed Project policies, as provided below,

prohibit the development of projects that would reasonably be anticipated to emit hazardous air pollutants or handle extremely hazardous substances within a quarter-mile of a school and provide for emergency planning to address potential upsets. Therefore, impacts would be less than significant.

### *Proposed General Plan Policies that Address the Impact*

Public Safety

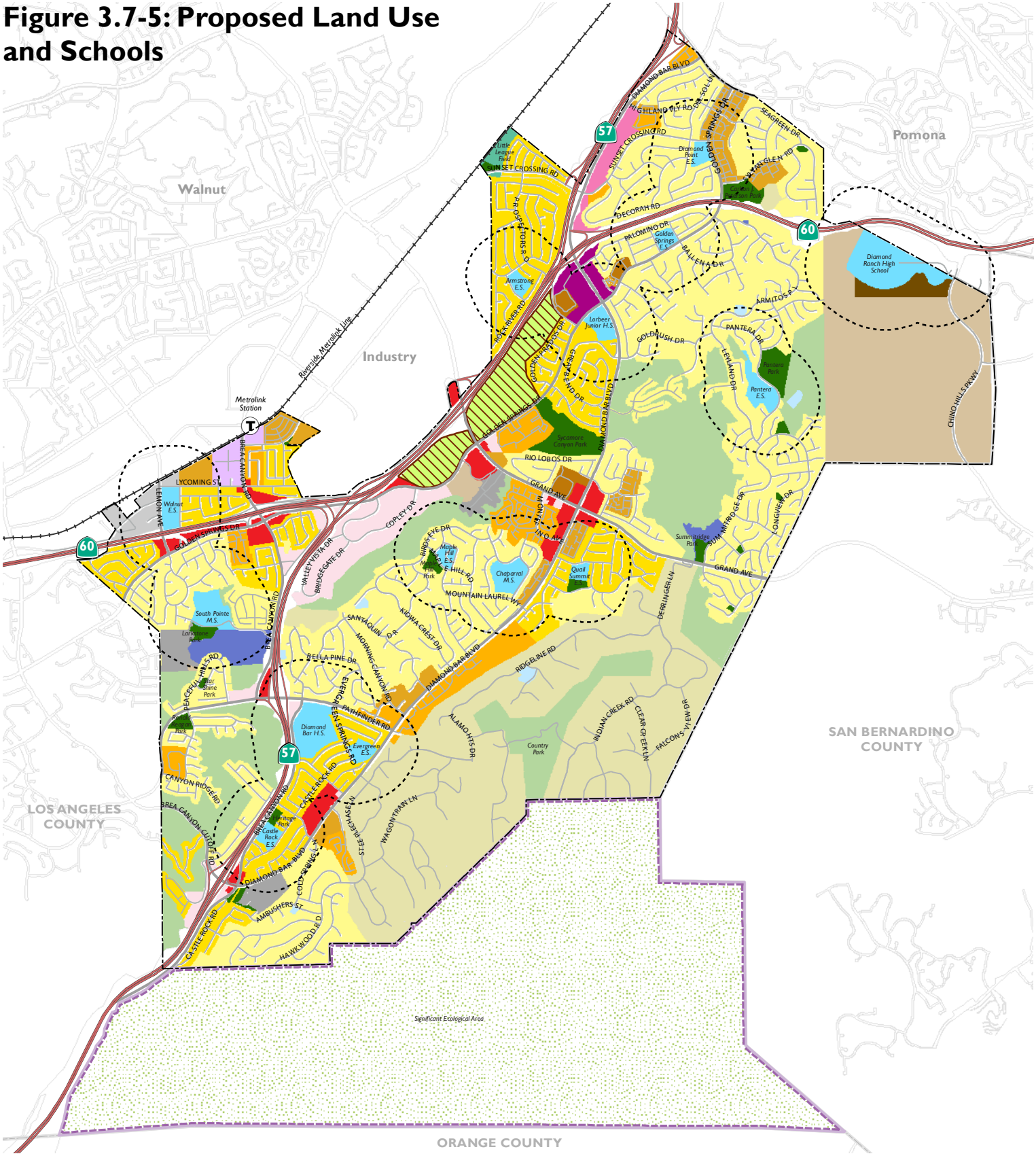
PS-P-26. Prohibit the development of projects that would reasonably be anticipated to emit hazardous air emissions or handle extremely hazardous substances within a quarter-mile of a school.

PS-G-8. Use the Local Hazard Mitigation Plan and Emergency Operations Plan to address mitigation and response for local hazards, including seismic hazards, flood hazards, fire hazards, hazardous materials incidents, and hazardous sites, and to plan for the protection of critical facilities (i.e., schools, hospitals), disaster and emergency response preparedness and recovery, evacuation routes, peak load water supply requirements, and minimum road width and clearance around structures.

### *Mitigation Measures*

None required.

# Figure 3.7-5: Proposed Land Use and Schools




*Source: City of Diamond Bar 2019; Dyett & Bhatia, 2019*

### Impact 3.7-4 Implementation of the Proposed Project would not result in development located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would create a significant hazard to the public or the environment. (*Less than Significant*)

As discussed in the Physical Setting section above, there are numerous sites in the Planning Area that are included on a list of hazardous material sites compiled pursuant to Government Code Section 65962.5 or that need further investigation (see Figure 3.7-1 and Table 3.7-1). Several of the sites have reported releases to the ground resulting in soil and groundwater contamination and which are subject to various State and federal laws and regulators, including CERCLA, EPA, DTSC, and the RWQCB, and are in various stages of the cleanup process as stipulated by the relevant agencies.

In general, contaminated sites are largely found along the city's major local roadways (e.g., Diamond Bar Boulevard, Grand Avenue, Golden Springs Drive). As of 2019, the majority of these sites are closed, with three open sites remaining on Golden Spring Drive and South Diamond Bar Boulevard. Nine sites are subject to the regulations of the California Waste Discharge Requirements Program. Redevelopment of sites with existing soil or groundwater contamination in accordance with the Proposed Project could potentially pose a significant hazard to the public or the environment through releases of hazardous materials into the environment; however, as discussed in Impact 4.7-1, these sites are regulated by existing federal and State policies and have been or are being investigated and remediated.

For future projects, the California Environmental Quality Act (CEQA) requires developers to reference the Cortese List and state if the project or any alternatives would be located on a listed site.

Therefore, compliance with existing federal, State, and local programs and regulations would ensure that impacts related to development on designated hazardous material sites would be less than significant.

*Mitigation Measures*

None required.

### Impact 3.7-5 Implementation of the Proposed Project would not result in development located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public uses airport, and would result in a safety hazard or excessive noise for people residing or working in the project area. (*No Impact*)

There are no airports within two miles of the planning area. The closest airport, Brackett Field, over six miles away, has an Air Impact Assessment (AIA) area that does not overlap with the planning area. Therefore, implementation of the land use changes and policies consistent with the Proposed Project would have no impact related to an airport-related safety hazard for people residing or working in the planning area.

*Mitigation Measures*

None required.

### Impact 3.7-6 Implementation of the Proposed Project would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. (*Less than Significant*)

Development anticipated by the Proposed Project, including new land uses and increased densities, has the potential to create obstacles to the timely implementation of emergency response plans adopted for the City. Both the County of Los Angeles and the City plan for emergency response, and these plans would apply to the Planning Area. The County of Los Angeles Emergency Response Plan was adopted in 2011 and establishes emergency organization for the Operational Area of Los Angeles County, specifies policies and general procedures for addressing emergencies impacting the Operational Area, and provides for the coordination of emergency operations plans of agencies and jurisdictions. The City does not have an Emergency Response Plan. Rather, the City facilitates the coordination of emergency response efforts through its Emergency Operations Center (EOC). Located at City Hall, the EOC is a central location of authority that allows for face-to-face coordination and decision making between City staff and outside organizations.

Policies included in the Proposed Project regarding emergency access, evacuation route development, and roadway development and traffic flow would ensure that emergency vehicle movement could efficiently access all parts of the planning area. Emergency events may be a time of high vehicle activity for both emergency and civilian vehicles. The Proposed Project addresses the potential impact of new development on emergency traffic flow by requiring that new development not significantly alter the City's current congestion levels, and that the City maintain or improve its current level of service standards. The Proposed Project also requires continued provision of successful emergency response, which could require the expansion of existing fire or police departments. Additionally, the City also utilizes local disaster volunteer programs, including the County of Los Angeles' Community Emergency Response Team (CERT), Los Angeles County Sheriff's Department Volunteer on Patrol Program, and the FEMA Independent Study Program. These voluntary programs provide emergency preparedness information and disaster response

training, which would be available to new residents in the area and would aid in implementing emergency response plans. The Proposed Project would neither impair implementation nor interfere with either jurisdiction's emergency plans.

Therefore, compliance with existing local programs and regulations and Proposed Project policies would ensure that impacts on emergency evacuation or response plans would be less than significant.

*Proposed General Plan Policies that Address the Impact*

The Proposed Project contains policies PS-P-41, PS-P-43, and PS-P-44, as discussed under impacts 3.7-1 and 3.7-2, that would support development and implementation of emergency response measures and address the potential harm associated with emergency events. Polices CR-G-15, CR-G-16, and CR-P-64, as discussed under impact 3.7-1, would address the potential harm associated with emergency events by facilitating the efficient movement of emergency response vehicles. Additional proposed policies for supporting emergency response appear below.

Public Safety

PS-P-15. Require adherence to Diamond Bar Fire and Building Codes, including minimum road widths and adequate access and clearance for emergency vehicles and the identification of all roads, streets, and major public buildings a in a manner that is clearly visible to fire protection and other emergency vehicles.

PS-P-32. Support the achievement of police and fire response times through the implementation of traffic management measures that mitigate congestion during peak rush hour and during school drop-off and pick-up times.

PS-P-33. Monitor fire-flow capability throughout the Planning Area and improve water availability and redundancy for any locations that have flows considered inadequate for fire protection. Continue to work with various water purveyors to maintain adequate water supply and require on-site water storage for areas where municipal water service is not available.

PS-P-34. Coordinate with the County of Los Angeles Fire Department to review all development applications for consistency with applicable Fire Codes.

PS-P-35. Work cooperatively with the Los Angeles County Fire Department, CAL FIRE, and fire protection agencies of neighboring jurisdictions to ensure that all portions of the Planning Area are served and accessible within an effective response time.

PS-P-36. Work with the Los Angeles County Sheriff's Department and County of Los Angeles Fire Department to ensure that the cost of providing new staffing, facilities, and equipment, including paramedic services, to support new development is assessed against the developments creating that need.

PS-P-40. Continue to coordinate the City's emergency preparedness and response plans and operations with the State Office of Emergency Management, Los Angeles County, schools, and other neighboring jurisdictions.

Circulation

CR-G-1. Improve the operating efficiency of the transportation system by reducing vehicle travel demand and providing opportunities for other modes of travel. Before approving roadway improvements that focus on increasing vehicle capacity, consider alternatives that reduce vehicle volumes and prioritize projects that would reduce single-occupancy vehicle use and greenhouse gas emissions.

CR-P-2. Require that new street designs and efforts to retrofit existing streets in residential neighborhoods minimize traffic volumes and/or speed as appropriate without compromising connectivity for emergency vehicles, bicycles, pedestrians, and users of mobility devices.

CR-P-6. Require that all new development study the impact of vehicle miles traveled (VMT) and implement congestion mitigation measures to ensure that new projects do not significantly increase local City congestion based on defined level of service (LOS) standards.

CR-G-7. Ensure smooth traffic flows by maintaining or improving traffic levels of service (LOS) that balance operational efficiency, technological and economic feasibility, and safety.

*Mitigation Measures*

None required.

### Impact 3.7-7 Implementation of the Proposed Project would not expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires. (*Less than Significant*)

Areas where the Proposed Project anticipates that potential growth may take place occur within the southeastern and northeastern regions of the Planning Area, in locations that are predominately already zoned for office, commercial, and high density residential uses, all of which occur predominately in areas of moderate to little or no fire threat. Areas of high to extreme fire threat do occur throughout the planning area, predominately in the southwest and northwest corners of the Planning Area, and in that area contained within the City's SOI. However, the open space or low-density zoning designations that the Proposed Project applies to these areas will ensure that development intensification within or around high wildland fire risk areas is kept to a minimum.

Should development in or around areas of high wildland fire risk occur, the Proposed Project's policies would ensure that proposed development would not substantially increase the risk of exposure of people and structures to wildfires. Several policies in the Proposed Project address potential fire hazards. Fire prevention and response policies include coordinating with the County of Los Angeles Fire Department to ensure that development decisions consider potential fire hazards and are informed by up-to-date High Fire Severity Zone maps, educating the public about fire prevention, employing ecosystem management techniques to address wildfire risk, and committing to maintain adequate fire response infrastructure and services. The Proposed Project guarantees that these services will be made available and accessible throughout the Planning Area, thus including any development that may occur in or around areas of high wildland fire risk. These policies reaffirm the City's commitment to providing emergency support resources and ensuring that development decisions are made with the provision of emergency support services, including fire suppression, in mind.

As the Proposed Project advocates preservation of open spaces and hillsides, infill development, and anticipates most new construction to occur in areas far removed from high wildland threat level areas and already designated for mixed, office, commercial, and high density residential use, intensive new development in open areas and those especially vulnerable to wildland fire is unlikely.

Therefore, compliance with existing local programs and regulations and Proposed Project policies would ensure that impacts of the Proposed Project on exposure to wildland fire risk would be less than significant.

#### *Proposed General Plan Policies that Address the Impact*

The Proposed Project contains policies PS-P-34, PS-P-35, and CR-P-2, which, as discussed under impact 3.7-6, would address the risk of exposure and loss due to wildfire by mandating continued adhere to local fire codes and participation in the Los Angeles County Fire Department's fire management and response programs. Other Proposed Policies to address risk associated with wildfire exposure are discussed below.

Public Safety

PS-G-3. Partner with the Los Angeles County Fire Department and affiliated agencies to implement hazard mitigation plans and community education efforts aimed at preventing the potential for loss of life, physical injury, property damage, public health hazards, and nuisances from wildland and urban fires.

PS-P-14. Educate the public about fire hazards and fire prevention. Work with the County of Los Angeles Fire Department and CAL FIRE to disseminate information on fire weather watches and fire risks and encourage all Diamond Bar residents to engage in risk reduction and fire preparedness activities.

PS-P-16. For privately-owned property within areas designated for development that are subject to high wildfire risk, condition approval of development upon the implementation of measures to reduce risks associated with that development, including, but not limited to, fuel modification plans and Fire Code requirements in effect at the time of project approval.

PS-P-17. Protect and promote native oak woodlands that border residential areas as fire buffers.

PS-P-18. Work cooperatively with the County of Los Angeles Fire Department, CAL FIRE, and fire protection agencies of neighboring jurisdictions to address regional wildfire threats.

PS-P-19. Maintain and update the City's High Fire Hazard Severity Zones map consistent with changes in designation by CAL FIRE to ensure that the County of Los Angeles Fire Department is protecting the community from wildland-urban fires as future development takes place.

PS-P-20. Prior to permit approval, ensure that all new development located in a Very High Fire Hazard Severity Zone or a State Responsibility Area (SRA) is served by adequate infrastructure, including safe access for emergency response vehicles, visible street signs, and water supplies for fire suppression.

PS-P-22. Support the County of Los Angeles Fire Department's Provision of weed abatement and brush thinning and removal services in High and Very High Fire Hazard Severity Areas in order to curb potential fire hazards.

PS-P-23. Where development is proposed within High or Very High Fire Hazard Severity Zones, ensure that the County of Los Angeles Fire Department has the opportunity to review the proposal in terms of its vulnerability to fire hazards and its potential as a source of fire, including fuel modification plan review for new development or additions that are equal or greater than 50 percent of the existing square footage.

PS-P-32. Support the achievement of police and fire response times through the implementation of traffic management measures that mitigate congestion during peak rush hour and during school drop-off and pick-up times.

PS-P-33. Monitor fire-flow capability throughout the Planning Area and improve water availability and redundancy for any locations that have flows considered inadequate for fire protection. Continue to work with various water purveyors to maintain adequate water supply and require on-site water storage for areas where municipal water service is not available.

Land Use and Economic Development

LU-G-2. Encourage compact growth and prioritize infill development to preserve existing large blocks of natural open space within the City and Sphere of Influence including Tonner Canyon and Tres Hermanos Ranch; and enhance community character, optimize city infrastructure investments, provide pedestrian- and bicycle-friendly neighborhoods, and enhance economic vitality.

LU-G-4. Locate new residential growth in or adjacent to mixed-use centers and transit stations to support regional and statewide efforts to encourage sustainable land use planning and smart growth principles.

LU-P-2. Allow clustering or transferring of all or part of the development potential of a site to a portion of the site to protect significant environmental resources such as vegetated habitats, sensitive species, wildlife movement corridors, water features, and geological features within proposed development as open space if the developer takes action to preserve the open space in perpetuity.

LU-G-28. Preserve open space, ridgelines, and hillsides to protect the visual character of the city, provide for public outdoor recreation, conserve natural resources, support groundwater recharge, protect existing and planned wildlife corridors, and ensure public safety.

LU-P-55. Preserve publicly-owned, undeveloped hillsides, as well as privately-owned hillsides with an Open Space General Plan designation, as natural open space in perpetuity. On privately-owned property which has a residential land use designation, preserve hillsides as natural open space through Diamond Bar's Hillside Management Ordinance by allowing residential development only at the permitted densities and where development would not detract from the protection and overall perception of the hillsides as natural topographic and ecological features, or negatively impact public safety or welfare.

*Mitigation Measures*

None required.

**Impact 3.7-8 Implementation of the Proposed Project would not result in substantial development located in or near State Responsibility Areas or lands classified as Very High Fire Hazard Severity Zones and would not substantially impair an adopted emergency response plan or emergency evacuation plan. (*Less than Significant*)**

Areas where the Proposed Project anticipates that growth may take place occur along the southeastern and northeastern border of the Planning Area, as illustrated in Figure 3.7-6. These locations are predominately already zoned for office, commercial, and high-density residential uses, and none of them occur in or around VHFSZs or SRAs.

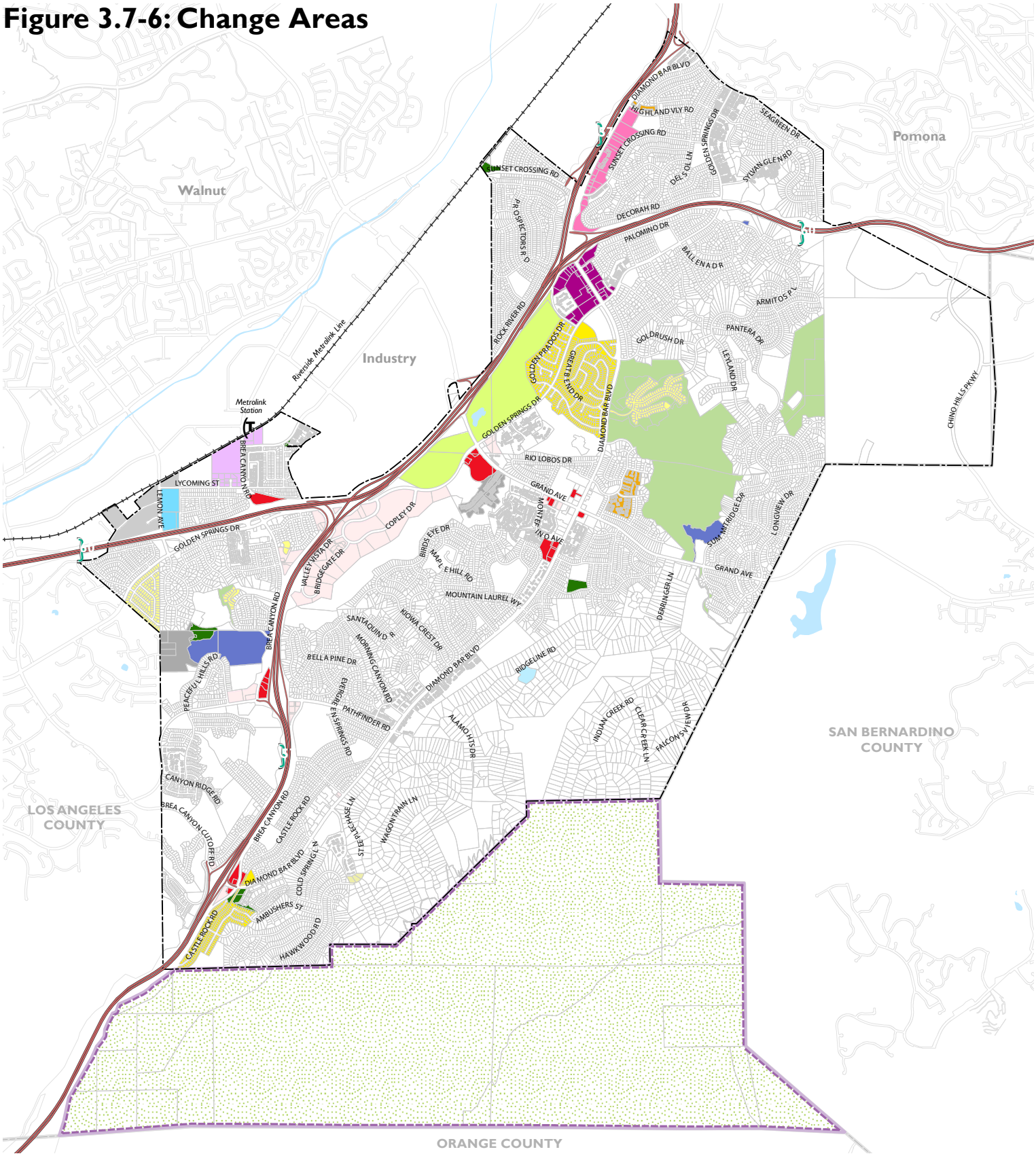
VFHSZs are present in several locations within city limits, but are confined exclusively to those areas designated for open and rural residential land uses. The City shares its southern boundary with a State Responsibility Area; the Proposed Project zones all land adjacent to this SRA for rural residential, low to low-medium residential, or open space uses. Zoning-related restrictions on development in these areas will ensure that development intensification within or around VFHSZs and SRAs is minimal, at most. Should development in or around Very High Fire Severity Zones or SRAs occur, the Proposed Project's policies would ensure that proposed development would not substantially interfere with the implementation of emergency response or emergency evacuation plans.

That portion of the Planning Area that falls within Diamond Bar city limits is under the purview of the Los Angeles County Fire Department, and is thus serviced by the Los Angeles County Operational Area Emergency Response Plan and the City's Emergency Operations plan. Development anticipated by the Proposed Project, including new land uses and increased densities, has the potential to create obstacles to the implementation of emergency response plans adopted for the City. Neither the City nor County currently possess emergency evacuation plans. Implementation of development patterns proposed in the Proposed Project, including proposed intersection improvements to operate above the City's level of service (LOS) D standard (further discussed in Section 3.12 Transportation), will therefore have a less than significant impact on the efficacy of local evacuation routes.

The Proposed Project's policies reaffirm the City's commitment to providing emergency support resources and ensuring that development decisions are made with the provision of emergency support services in mind. Emergency prevention and response policies include coordinating with the County of Los Angeles Fire Department to ensure that development decisions consider potential fire hazards and are informed by up-to-date High Fire Severity Zone maps, improving local hazard mitigation plans, and facilitating efficient movement of emergency response vehicles.

Therefore, compliance with existing local programs and regulations and the Proposed Project's policies would ensure that impacts of the Proposed Project on emergency evacuation or response plans, as they apply to development occurring in or around Very High Fire Severity Zones or State Responsibility Areas, would be less than significant.

# Figure 3.7-6: Change Areas




**Land Use Designations**

- Rural Residential
- Low Density Residential
- Low-Medium Residential
- Medium High Density Residential
- Neighborhood Mixed Use
- Town Center Mixed Use
- Transit Oriented Mixed Use
- Light Industrial
- General Commercial
- Office
- Water
- School
- Public Facility
- Park
- Golf Course
- Open Space
- Significant Ecological Area
- Specific Plan
- Water Features
- City of Diamond Bar
- Sphere of Influence
- County Boundary

0 0.25 0.5 1 MILES

*Source: City of Diamond Bar 2019; Dyett & Bhatia, 2019*

### *Proposed General Plan Policies that Address the Impact*

The Proposed Project contains policies PS-G-3, PS-P-14, PS-P-16, PS-P-17, PS-P-18, PS-P-19, PS-P-20, PS-P-22, PS-P-23, PS-P-32, PS-P-33, LU-G-2, LU-G-4, LU-P-2, LU-G-28, and LU-P-55, which, as discussed under Impact 3.7-7, address fire exposure risk through partnership with the Los Angeles County Fire Department, considering location of High Fire Hazard Severity Zones at the outset of the development process, mandating compliance with local fire codes, engaging in wildfire prevention, and encouraging compact development patterns and preservation of open space. Additionally, CR-G-15, CR-G-16, and CR-P-64, as discussed under Impact 3.7-2, would improve emergency access. Additional policies for reducing the risk associated with wildfire and support emergency planning and evacuation resources and services appear below.

<u>Public Safety</u>

PS-P-36. Work with the Los Angeles County Sheriff's Department and County of Los Angeles Fire Department to ensure that the cost of providing new staffing, facilities, and equipment, including paramedic services, to support new development is assessed against the developments creating that need.

PS-P-37. Maintain area-wide mutual aid agreements and communication links with adjacent governmental authorities and other participating jurisdictions.

<u>Circulation</u>

CR-G-13 Establish evacuation routes to provide safe and expedient egress for emergencies and disasters.

CR-G-14 Minimize emergency vehicle response time and improve emergency access.

CR-P-65 Work with the Los Angeles County Fire Department and other first responders to designate and mark emergency evacuation and access routes.

CR-P-66 Collaborate with the Los Angeles County Fire Department, neighboring jurisdictions, Los Angeles County, and Caltrans to prepare a plan for the movement of emergency vehicles, trucks, and vehicles in and out of Diamond Bar during natural disasters and emergencies.

### *Mitigation Measures*

None required.

**Impact 3.7-9 Implementation of the Proposed Project would not result in development located in or near State Responsibility Areas or lands classified as Very High Fire Hazard Severity Zones and would exacerbate fire risks due to slope, prevailing winds, and other factors, thereby exposing project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire. (*Less than Significant*)**

Areas where the Proposed Project anticipates that growth may take place occur within the southeastern and northeastern regions of the Planning Area, in locations that are predominately already zoned for office, commercial, and high density residential uses, none of which occur in or around VHFSZs or SRAs. VFHSZs are present in several locations throughout the Planning Area, but are confined exclusively to those areas that the Proposed Project designates for open and rural residential land uses. Associated density of development restrictions, as well as Proposed Project policies such as PS-P-16 and PS-P-23, will ensure that development intensification within or around VFHSZs and SRAs is minimal.

As intensive development is not expected to occur in or around SRAs or VHFSZs, the impact that any development that should occur in these areas on fire risk is minimal.

Should development in or around VHFSZs occur, Proposed Policies contained within the General Plan would ensure that proposed development would protect existing hillsides and would prevent an increase in exposure to wildfire risk. The County's existing Hillside Management Area Ordinance regulates development in hillsides that have natural slope gradients of 25% or steeper, and potential hazards are analyzed as part of the permitting process.

The Proposed Project's policies also provide for the protection of sensitive receptors from hazardous concentrations of air pollutants, thereby reducing the potential for exposure to air pollutants associated with wildfire. In the event of a wildfire, SCAQMD provides air quality advisories across Los Angeles County[33], helping ensure that residents can take the appropriate response to reduce exposure.

Therefore, compliance with existing local programs and regulations and Proposed Project policies would ensure that impacts of the Proposed Project on wildfire risk and associated pollutant exposure would be less than significant.

[33] South Coast Air Quality Management District. Wildfires and Your Health. Online: http://www.aqmd.gov/docs/default-source/air-quality/advisories/wildfiresandhealth.pdf?sfvrsn=2. Accessed: June 19, 2019.

*Proposed General Plan Policies that Address the Impact*

The Proposed Project contains policies PS-G-3, PS-P-14, PS-P-16, PS-P-17, PS-P-18, PS-P-19, PS-P-20, PS-P-22, PS-P-23, PS-P-32, PS-P-33, LU-G-2, LU-G-4, LU-P-2, LU-G-28, and LU-P-56, which, as discussed under impact 3.7-7, address the development risk associated with wildfire. One additional policy, CHS-P-27, is relevant to Impact 3.7-9, as it mandates the continued provision of clean air for sensitive receptors.

Community Health and Sustainability

CHS-P-27. Recognizing the adverse health impacts associated with compromised air quality, protect sensitive receptors from exposure to hazardous concentrations of air pollutants.

*Mitigation Measures*

None required.

**Impact 3.7-10 Implementation of the Proposed Project would not result in development located in or near State Responsibility Areas or lands classified as Very High Fire Hazard Severity Zones and would require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines, or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment. (*Less than Significant*)**

Areas where the Proposed Project anticipates that growth may take place occur within the southeastern and northeastern regions of the Planning Area, in locations that are predominately already zoned for office, commercial, and high density residential uses, none of which occur in or around VHFSZs or SRAs.

Generally, all new development can be expected to require some degree of infrastructure expansion. Construction of new roads and provision of new energy, water, and other utility services, as well as their associated ongoing maintenance, may produce some degree of environmental impact, including habitat disruption and release of waste products or hazardous materials. However, as the Proposed Project locates areas of potential development away from SRAs and VHFSZs, the construction of additional infrastructure required specifically to combat risk for fire exposure is expected to be minimal.

The Planning Area does contain, as identified by the CPUC FireMap, areas that are vulnerable to powerline fires[34]. These regions are confined primarily to the southern and eastern portions of the Planning Area, and do not overlap with sites of anticipated high-intensity development. In the

[34] California Public Utilities Commission. CPUC Fire Map. Online: https://ia.cpuc.ca.gov/firemap/#. Accessed: June 19, 2019.

event that new development does occur in areas of elevated powerline fire risk, state regulations would govern utility-related wildfire hazard mitigation approaches.

The Proposed Project contains no new major roads, and as such there is no exacerbation of fire risk or environmental impact associated with road construction.

CAL FIRE oversees the design and construction of fuel breaks within its jurisdiction[35], and maintains standards with regard to fuel breaks and environmental protection.

Additionally, should development occur in or around State Responsibility Areas or VHFSZs, components of the Proposed Project serve to mitigate wildfire risk, and would thus keep the construction of additional infrastructure needed to combat fire to a minimum. Proposed policies include continued participation in the County's fire mitigation and review programs and continued adherence to local fire codes.

Therefore, compliance with existing local programs and regulations and Proposed Project policies would ensure that impacts of the Proposed Project on wildfire risk would be less than significant.

*Proposed General Plan Policies that Address the Impact*

The Proposed Project contains policies PS-G-3, PS-P-14, PS-P-16, PS-P-17, PS-P-18, PS-P-19, PS-P-20, PS-P-22, PS-P-23, PS-P-32, PS-P-33, LU-G-2, LU-G-4, LU-P-2, LU-G-28, and LU-P-56, which, as discussed under impact 3.7-7, address risk associated with wildfire exposure.

*Mitigation Measures*

None required.

**Impact 3.7-11 Implementation of the Proposed Project would not result in development located in or near State Responsibility Areas or lands classified as Very High Fire Hazard Severity Zones and would not expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes. (*Less than Significant*)**

Areas where the Proposed Project anticipates that growth may take place occur within the southeastern and northeastern regions of the Planning Area, in locations that are predominately already zoned for office, commercial, and high density residential uses, none of which occur in or around VHFSZs or SRAs. VFHSZs are present in several locations throughout the Planning Area, but are confined exclusively to those areas designated for open and rural residential land uses. The City shares its southern boundary with a State Responsibility Area; all land adjacent to this SRA is zoned for rural residential, low to low-medium residential, or open space uses. Associated density

[35] CAL FIRE, 2019. CAL FIRE Fuel Breaks and Use During Fire Suppression. Online: http://www.fire.ca.gov/general/downloads/45-DayReportPlans/Fuel_Break_Case_Studies_03212019.pdf. Accessed: June 20, 2019.

of development restrictions, as well as Proposed Project policies such as PS-P-16 and PS-P-23, will ensure that development intensification within or around VFHSZs and SRAs is minimal.

Therefore, compliance with existing local programs and regulations and Proposed Project policies would ensure that impacts of the Proposed Project on wildfire risk and associated effects on soil and water movement would be less than significant.

### *Proposed General Plan Policies that Address the Impact*

The Proposed General Plan contains policies PS-G-3, PS-P-14, PS-P-16, PS-P-17, PS-P-18, PS-P-19, PS-P-20, PS-P-22, PS-P-23, PS-P-32, PS-P-33, LU-G-2, LU-G-4, LU-P-2, and LU-G-28, which, as discussed under impact 3.7-7, are intended to address risk associated with wildfire exposure. Additional policies intended to address risk associated with seismic, geotechnical, and flooding hazard are addressed below.

<u>Public Safety</u>

PS-G-2. Implement measures aimed at preventing the potential for loss of life, physical injury, property damage, public health hazards, and nuisances from the effects of a 100-year storm and associated flooding.

PS-P-2. Require areas identified as having significant liquefaction potential (including secondary seismic hazards such as differential compaction, lateral spreading, settlement, rock fall, and landslide) to undergo site-specific geotechnical investigation prior to development and to mitigate the potential hazard to a level of insignificance or, if mitigation is not possible, to preserve these areas as open space or agriculture.

PS-P-3. Periodically update the Public Works Department grading standards to supplement the City of Diamond Bar building and construction safety codes with detailed information regarding rules, interpretations, standard specifications, procedures requirements, forms, and other information applicable to control excavation, grading, and earthwork construction, and provide guidelines for preparation of geotechnical reports in the city.

PS-P-4. Carry out a review of critical facilities that may be vulnerable to major earthquakes and landslides and develop programs to upgrade them.

PS-P-6. Prevent and control soil erosion and corresponding landslide risks through hillside protection and management.

PS-P-8. Continue to implement and pursue flood control programs, such as the City's Grading and Floodplain Ordinances, that reduce flood hazards to comply with State flood risk management requirements.

PS-P-9. Consider the impacts to health and safety from potential flooding on future development in flood-prone areas, including those identified as being within the

100- or 500-year floodplains. Require installation of protective structures or other design measures to protect proposed building and development sites from the effects of flooding in these areas.

PS-P-10. Ensure that a drainage study has been completed by a qualified engineer as a prerequisite to new development or the intensification of existing development, certifying that the proposed development will be adequately protected, and that implementation of the development proposal will not create new downstream flood hazards.

PS-P-11. Use the drainage master plan developed in coordination with the Los Angeles County Public Works Department (see Implementing Policy PSF-P-47) to assess existing and future flood control needs and related improvements within Diamond Bar.

PS-P-13. Reduce the flooding impact of a storm event by enhancing the city's green infrastructure system to complement the gray infrastructure system.

<u>Land Use</u>

LU-P-56. Ensure that development on privately-owned, residentially designated land in hillside areas is compatible with surrounding natural areas by requiring that development:

a. Minimizes—as articulated by the landform grading criteria of the Hillside Management Ordinance—excavation, grading, and earthwork to retain natural vegetation and topography;
b. Preserves existing vistas of significant hillside features such as ridgelines, particularly from public places;
c. Does not create unsafe conditions;
d. Incorporates and is sensitive to natural contours and land forms in its site design, including hydrological features;
e. Preserves natural watersheds, including existing vegetation within undeveloped hillside areas to the maximum extent feasible, including mature trees and native plant materials;
f. Permits fuel modification as part of the Fire District's approved fuel modification program;
g. Utilizes planting palettes consisting of drought tolerant, fire resistant, plants with colors similar to those of native materials in the surrounding area; and
h. Groups plants within swale areas to more closely reflect natural conditions within landform graded slopes.

*Mitigation Measures*

None required.

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# 3.8 Hydrology and Water Quality

This section assesses potential environmental impacts on hydrology and water quality from future development under the Proposed Project. Issues addressed include water quality standards, groundwater resources, drainage, and flood hazards related to rivers, sea level rise, dam failure, seiches, tsunamis, and mudflows. The section describes existing surface water and groundwater hydrology, water quality, and flood hazards in the Planning Area, as well as relevant federal, State, and local regulations and programs.

There were two comments on the Notice of Preparation (NOP) regarding topics addressed in this section. Those comments include the following topics specific to Hydrology and Water Quality.

- The EIR needs to address possible water restrictions due to state imposed cutbacks, possible future drought conditions, reclaimed water systems, low impact development, water neutrality of new developments, and conduct a water supply assessment. The EIR does not evaluate these impacts specifically, rather it evaluates water supply issues as a whole, see Section 3.13 for additional information.
- At the June 21, 2018 Scoping Meeting, a member of the public stated concerns over water pollution. Impacts of the Proposed Project on water pollution are addressed under Impacts 3.8-1, 3.8-3, and 3.8-4.

## Environmental Setting

### PHYSICAL SETTING

#### Climate

The City of Diamond Bar's (City) climate is a semi-arid, Mediterranean environment with mild winters, warm summers, and moderate rainfall, consistent with interior coastal Southern California. The usually mild climatological pattern is interrupted infrequently by periods of extremely hot weather or winter storms. The average monthly temperature ranges from about 52 to 78 degrees Fahrenheit (°F), with an annual average temperature of nearly 65°F. The daily average low and high temperatures have been measured to be 39°F and 90°F, respectively. Evapotranspiration (ETo) averages a total of 49.78 inches per year, while the average annual rainfall is nearly 12 inches. Records show that the average monthly precipitation ranges as high as 3 inches and as low as almost 0 inches. Most of the rainfall typically occurs during the period of November through January.

## Topography

The City is located in the northern part of the Puente Hills, a northwesterly trending range of low-elevation, rounded hills between the Los Angeles basin to the west and the Upper Santa Ana River Valley on the east. According to geotechnical reports, these hills are underlain primarily by Miocene-age (+/- 10-15 million years old) marine sedimentary rocks that have been uplifted within the past million years or so (Pleistocene geologic epoch) by geologic forces. These rocks are primarily light-colored, well-bedded, mudstones, shales, and sandstones. The Miocene sedimentary rocks are intruded by Miocene-age volcanic rocks and underlain by older basement rocks at depths on the order of a mile or more. In many places, the Miocene rocks are covered by young slopewash and terrace sediments, and by Quaternary-age alluvium in the valleys and basins. Grand Avenue extends northerly across a narrow valley at the north end of the Puente Hills. The hills on the north side of the valley are composed of Miocene-age, marine, sedimentary rocks of the Yorba Member of the Puente Formation which is composed primarily of thin-bedded siltstone (shale) and sandstone. The hills on the south side of the valley are underlain by the Soquel and LaVida members of the Puente Formation. The valley is filled with loose, non-indurated (unconsolidated), young (Quaternary-age) sands and gravels. These are underlain by medium dense silts and sands. Bedrock of the Puente Formation occurs at a depth of about 45 to 50 feet.

The City is in the valley of Diamond Bar Creek and San Jose Creek between the Los Angeles basin to the west and the Upper Santa Ana River Valley on the east, and the San Gabriel Valley and Mountains on the north. Diamond Bar Valley is a small, narrow valley with a flat floor ranging from about 550 feet on the west to 700 feet in elevation in the northeast. The Diamond Bar Valley is bounded by a ridge on the north that rises to about 800 feet elevation, and hills on the south that rise to about 1,000 feet before descending into Tonner Canyon on the south.

Most of the level, easily developable land in Diamond Bar has already been developed, and much of the remaining land has a variety of geotechnical and topographic conditions that may constrain certain types of development. Large portions of the City contain steep slopes that pose a significant constraint to development. In addition to slope constraints, many of the hillsides in Diamond Bar have a potential for landslides. Slope stability is affected by such factors as soil type, gradient of the slope, underlying geologic structure, and local drainage patterns. The rolling topography and composition of local soils throughout Diamond Bar create numerous areas for potential landslide hazards. Although many historical landslide locations have been stabilized, there still exist a number of potential landslide areas in the eastern portion of the City as well as within Tonner Canyon in the Sphere of Influence.

## Groundwater Resources

The City overlies the Puente and Spadra Groundwater Basins. Both groundwater basins do not contain potable water quality due to high levels of total dissolved solids and nitrates. As such, groundwater production is distributed within the recycled water distribution system. The City relies on Walnut Valley Water District (WVWD) to provide reliable water supplies throughout the city. WVWD pumps groundwater from the Spadra Basin via one well and from the Puente Basin via five wells. In 2015, WVWD produced 872 acre-feet from the Puente Basin and 63 acre-feet from the Spadra Basin. However, annual groundwater production varies since WVWD only uses it to

supplement recycled water supplies. WVWD has planned projects that will allow WVWD to produce potable groundwater from the Central Basin, Main San Gabriel Basin, and Six Basins.

Both WVWD and Los Angeles County Department of Public Works (LACDPW) measure groundwater elevations in the Puente Basin. Groundwater elevation range from 250 feet to 600 feet across the basin.

## Surface Water Resources

The City drains to the San Jose Creek and Diamond Bar Creek. The San Jose Creek is tributary to the San Gabriel River approximately 10.2 miles downstream from the Diamond Bar Creek confluence. The San Jose Creek subwatershed drains approximately 7.29 square miles to its confluence with the San Gabriel River. The San Gabriel River flows through the San Gabriel Estuary into San Pedro Bay through the Los Angeles/Long Beach Harbor, and into the Pacific Ocean, draining approximately 682 square miles of eastern Los Angeles County. San Gabriel Creek's headwaters are in the San Gabriel Mountains, traversing through the San Gabriel and Morris reservoirs, and collecting runoff from a highly urbanized watershed before emptying into the Pacific Ocean.

Diamond Bar Creek is within the Upper San Gabriel hydrologic area and belongs to the 405.20 hydrologic sub-area. Diamond Bar Creek flows west on the north side and parallel to SR-57/SR-60 within the project vicinity. After crossing under Grand Avenue, Diamond Bar Creek flows for approximately 2.5 miles, bending northwest after entering the City of Walnut, before running into the San Jose Creek Reach 1 (SG Confluence to Temple St.).

The Los Angeles Regional Water Quality Control Board (LARWQCB) has jurisdiction and the City is a Permittee under the LARWQCB's Municipal Separate Storm Sewer System (MS4) Permit that regulates the waste discharge requirements for discharges within the Coastal Watersheds of Los Angeles County.

## Water Quality

### *Groundwater Quality*

As described above, the City overlies the Puente and Spadra Groundwater Basins; both of which are do not contain potable water quality due to high levels of total dissolved solids and nitrates. Per the Puente Basin Watermaster, WVWD collects water quality samples for total dissolved solids on a quarterly basis from several wells within the Puente Basin. Recent sampling shows total dissolved solids concentrations ranging from 920 milligrams per liter (mg/L) to 1010 mg/L.

### *Surface Water Quality*

As described, the City drains to Diamond Bar Creek, which confluences with San Jose Creek approximately 2.7 miles downstream of Grand Avenue. San Jose Creek is tributary to the San Gabriel River approximately 10.2 miles downstream from the Diamond Bar Creek confluence. The San Gabriel River flows through the San Gabriel Estuary into San Pedro Bay through the Los Angeles/Long Beach Harbor, and into the Pacific Ocean, draining approximately 682 square miles

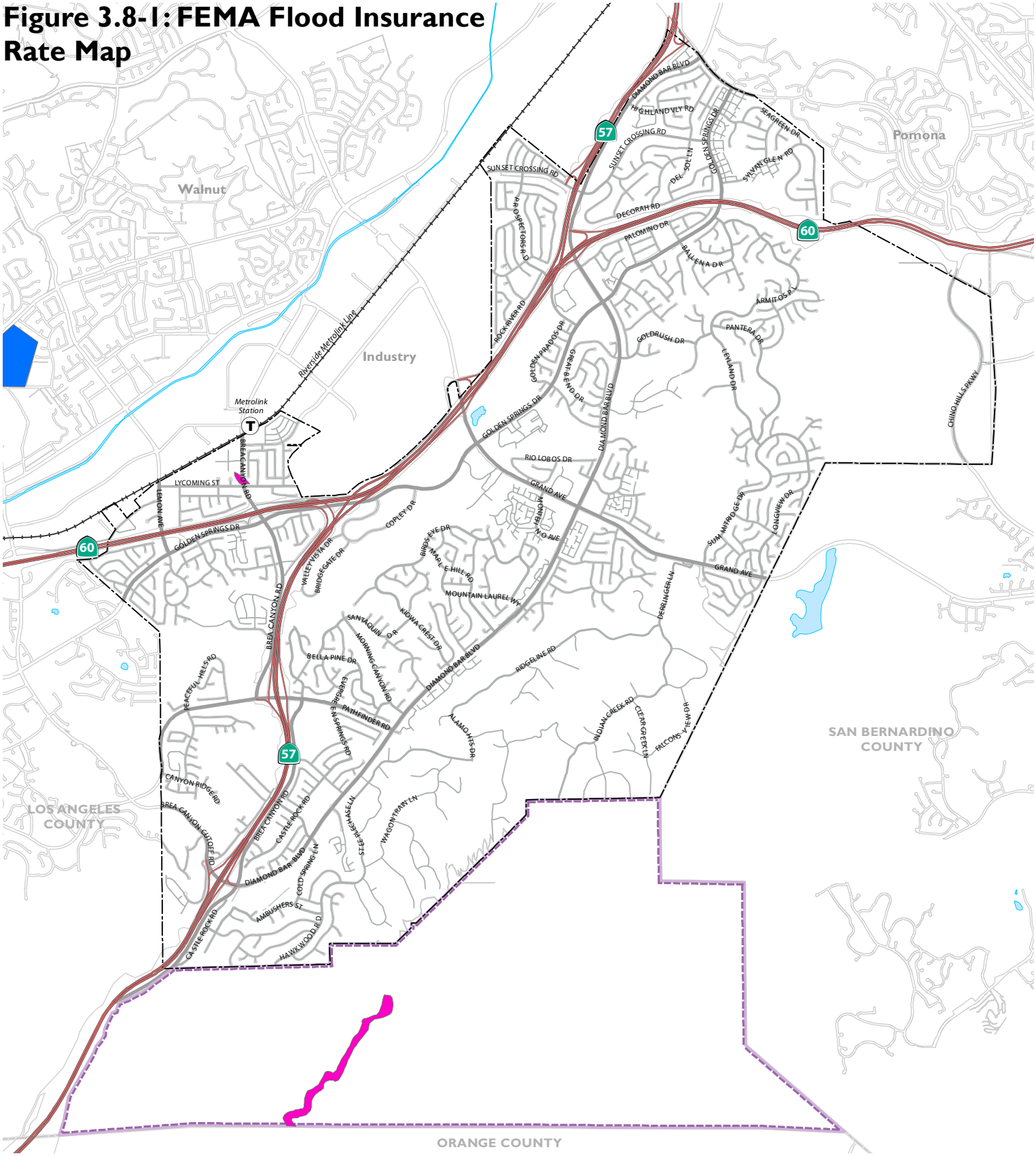
of eastern Los Angeles County. San Gabriel Creek's headwaters are in the San Gabriel Mountains, traversing through the San Gabriel and Morris reservoirs, and collecting runoff from a highly urbanized watershed before emptying into the Pacific Ocean.

Portions of the San Gabriel River Watershed are listed on the 2016 Clean Water Act (CWA) Section 303(d) List of impaired water bodies. The 303(d) List for the San Jose Creek lists the following pollutants: ammonia, excess algal growth, indicator bacteria, selenium, temperature, total dissolved solids, toxicity, and pH.

## Flooding

The City is located outside the 100-year flood plain (i.e., within Zone X), in which there is a 0.2 percent chance of flooding annually (Flood Insurance Rate Maps 0637C1725F, dated September 26, 2008). Of note, a portion of Tonner Canyon Creek within the City's SOI is located within the 100-year flood plain (Zone A), in which there is a 1.0 percent chance of flooding annually (Flood Insurance Rate Maps 0637C1880F, dated September 26, 2008).

# Figure 3.8-1: FEMA Flood Insurance Rate Map




100 Year Floodplain (1.0% Annual Chance Flood Hazard)

500 Year Floodplain (0.2% Annual Chance Flood Hazard)

Highways

Ramps

Major Roads

Local Roads

Railroads

Lakes/Ponds

City of Diamond Bar

Sphere of Influence

County Boundary

*Source: FEMA's NFHL Viewer, Effective Map Date 2008; City of Diamond Bar 2019; Dyett & Bhatia, 2019*

0 0.375 0.75 1.5
MILES

### Dam and Levee Failure Inundation Zones

The City is not subject to dam and levee failure inundation zones, as there are no dams or levees located within or near the City

### Coastal and Bay Hazards

*Sea Level Rise*

The City is not subject to rising sea level hazards.

*Seiches*

There are no bodies of water within or near the Project Area that are susceptible to seiches.

*Tsunamis*

The City is not subject to tsunami-related impacts due to its inland location.

*Mudflows*

As described above, many of the hillsides in Diamond Bar have a potential for landslides. The rolling topography and composition of local soils throughout Diamond Bar create numerous areas for potential landslide hazards. However, many historical landslide locations have been stabilized. Notwithstanding, a number of potential landslide areas still exist throughout the City, as well as within Tonner Canyon in the Sphere of Influence.

## REGULATORY SETTING

### Federal Regulations

*Clean Water Act (CWA)*

The Clean Water Act (CWA) establishes the basic structure for regulating discharges of pollutants into "waters of the United States." The Act specifies a variety of regulatory and non-regulatory tools to sharply reduce direct pollutant discharges into waterways, finance municipal wastewater treatment facilities, and manage polluted runoff. Some of these tools include:

- Section 303(d) – Total Maximum Daily Loads
- Section 401 – Water Quality Certification
- Section 402 – National Pollutant Discharge Elimination System Program
- Section 404 – Discharge of Dredge or Fill Material

Section 303(d) requires states, territories, and authorized tribes to develop a list of water-quality limited segments of rivers and other water bodies under their jurisdiction. These waters on the list do not meet water quality standards, even after point sources of pollution have installed the minimum required levels of pollution control technology. The law requires that these jurisdictions establish priority rankings for waters on the list and develop action plans, called Total Maximum

Daily Loads (TMDL), to improve water quality. These are action plans designed to improve the quality of water resources. As part of the TMDL process, municipalities must examine the water quality problems and identify sources of pollutants in order to create specific actions designed to improve water quality.

Section 401 requires every applicant for a federal permit or license for any activity that may result in a discharge to a water body to obtain a water quality certification that the proposed activity will comply with applicable water quality standards.

Section 402 regulates point-source discharges to surface waters through the NPDES program. In California, the State Water Resources Control Board (SWRCB) oversees the NPDES program, which is administered by the Regional Water Quality Control Boards (RWQCBs). The NPDES program provides for both general permits (those that cover a number of similar or related activities) and individual permits. The NPDES program covers municipalities, industrial activities, and construction activities. The NPDES program includes an industrial stormwater permitting component that covers ten categories of industrial activity that require authorization under a NPDES industrial stormwater permit for stormwater discharges. Construction activities, also administered by the State Water Board, are discussed below. Section 402(p) of the federal Clean Water Act, as amended by the Water Quality Act of 1987, requires NPDES permits for stormwater discharges from municipal separate storm sewer systems (MS4s), stormwater discharges associated with industrial activity (including construction activities), and designated stormwater discharges, which are considered significant contributors of pollutants to waters of the United States. On November 16, 1990, USEPA published regulations (40 CFR Part 122), which prescribe permit application requirements for MS4s pursuant to CWA 402(p). On May 17, 1996, the U.S. EPA published an Interpretive Policy Memorandum on Reapplication Requirements for Municipal Separate Storm Sewer Systems, which provided guidance on permit application requirements for regulated MS4s. MS4 permits include requirements for post-construction control of stormwater runoff in what is known as Provision C.3. The goal of Provision C.3 is for the Permittees to use their planning authorities to include appropriate source control, site design, and stormwater treatment measures in new development and redevelopment projects to address both soluble and insoluble stormwater runoff pollutant discharges and prevent increases in runoff flows from new development and redevelopment projects. This goal is to be accomplished primarily through the implementation of low impact development (LID) techniques.

Section 404 establishes a permit program, administered by USACE, to regulate the discharge of dredge or fill materials into waters of the U.S., including wetlands. Activities in waters of the U.S. that are regulated under this program include fills for development, water resource projects (such as dams and levees), infrastructure development (such as highways and airports), and conversion of wetlands to uplands for farming and forestry. CWA Section 404 permits are issued by USACE.

### *Federal Antidegradation Policy, 40 CFR 131.12*

The federal antidegradation policy is designed to protect existing water uses, water quality, and national water resources. The federal policy directs states to adopt a statewide policy that includes the following primary provisions:

- Existing instream uses and the water quality necessary to protect those uses shall be maintained and protected;
- Where existing water quality is better than necessary to support fishing and swimming conditions, that quality shall be maintained and protected unless the state finds that allowing lower water quality is necessary for important local economic or social development; and
- Where high-quality waters constitute an outstanding national resource, such as waters of national and state parks, wildlife refuges, and waters of exceptional recreational or ecological significance, that water quality shall be maintained and protected.

### *National Toxics Rule and California Toxics Rule, 40 CFR 131*

In 1992, EPA promulgated the National Toxics Rule under the Clean Water Act to establish numeric criteria for priority toxic pollutants for 14 states to bring all states into compliance with the requirements of section 303(c)(2)(B) of the CWA. The National Toxics Rule established water quality standards for 42 pollutants not covered under California's statewide water quality regulations at that time. As a result of the court ordered revocation of California's statewide Basin Plans in September 1994, EPA initiated efforts to promulgate additional federal water quality standards for California. In May 2000, EPA issued the California Toxics Rule, which includes all the priority pollutants for which EPA has issued numeric criteria not included in the National Toxics Rule.

### *Safe Drinking Water Act*

The Safe Drinking Water Act (SDWA), administered by the U.S. EPA in coordination with the states, is the main federal law that ensures the quality of drinking water. Under the SDWA, the EPA sets standards for drinking water quality and oversees the states, localities, and water suppliers who implement those standards. The Department of Public Health administers the regulations contained in the SDWA in the State of California.

### *National Flood Insurance Program*

Congress passed the National Flood Insurance Act of 1968 and the Flood Disaster Protection Act of 1973. The intent of these acts was to reduce the need for large, publicly funded flood control structures and disaster relief by restricting development on floodplains.

FEMA administers the National Flood Insurance Program (NFIP) to provide subsidized flood insurance to communities that comply with FEMA regulations limiting development in floodplains. FEMA issues Flood Insurance Rate Map (FIRMs) for communities participating in the NFIP.

### *Executive Order 11988*

Executive Order 11988 directs federal agencies to avoid to the extent practicable and feasible short and long-term adverse impacts associated with the occupancy and modification of floodplains and to avoid direct and indirect support of floodplain development wherever there is a practicable alternative. Further, this Executive Order requires the prevention of uneconomic, hazardous, or incompatible use of floodplains; protection and preservation of the natural and beneficial floodplain values; and consistency with the standards and criteria of the National Flood Insurance Program (NFIP).

Federal Highway Administration regulations require that a local hydraulic study and risk assessment be performed where a planned facility or action would encroach on a base floodplain or support incompatible floodplain development. When the hydraulic study indicates significant encroachment, findings must be made that it is the only practicable alternative. The hydraulic study and risk assessment protocol are set forth in the Caltrans Highway Design Manual (Caltrans, 2018). This manual provides guidance and procedures whenever an encroachment permit is anticipated.

### *Disaster Mitigation Act*

In 2000, FEMA adopted revisions to Title 44 of the Code of Federal Regulations (44 CFR). This revision is known as Disaster Mitigation Act (DMA). DMA 2000, Section 322 (a-d) requires that local governments, as a condition of receiving federal disaster mitigation funds, have a Hazard Mitigation Plan (HMP) that describes the process for assessing hazards, risks, and vulnerabilities, identifying and prioritizing mitigation actions, and engaging/soliciting input from the community (public), key stakeholders, and adjacent jurisdictions/agencies.

## State Regulations

### *Porter-Cologne Water Quality Control Act of 1969*

The Porter-Cologne Water Quality Control Act established the State Water Resources Control Board (SWRCB) and divided the state into nine regional basins, each with a Regional Water Quality Control Board (RWQCB). The SWRCB is the primary state agency responsible for protecting the quality of the state's surface and groundwater supplies, while the regional boards are responsible for developing and enforcing water quality objectives and implementation plans. The Planning Area is within the jurisdiction of the Los Angeles Basin RWQCB (Region 4).

The act authorizes the SWRCB to enact state policies regarding water quality in accordance with CWA 303. In addition, the act authorizes the SWRCB to assess Waste Discharge Requirement (WDR) fees for projects that would discharge to state waters. The Porter-Cologne Water Quality Control Act requires that the SWRCB or the Los Angeles Basin RWQCB adopt water quality control plans (basin plans) for the protection of water quality. A basin plan must:

- Identify beneficial uses of water to be protected;
- Establish water quality objectives for the reasonable protection of the beneficial uses; and
- Establish a program of implementation for achieving the water quality objectives.

Basin plans also provide the technical basis for determining waste discharge requirements, taking enforcement actions, and evaluating clean water grant proposals. Basin plans are updated and reviewed every three years in accordance with Article 3 of Porter-Cologne Water Quality Control Act and CWA 303(c). The local basin plans are described under Local Regulations, below.

### *Cobey-Alquist Floodplain Management Act*

The Cobey-Alquist Floodplain Management Act (California Water Code 8400-8415) and Executive Order B-39-77 give support to the National Flood Insurance Program. The Act encourages local governments to plan, adopt, and enforce land use regulations for floodplain management, in order to protect people and property from flooding hazards. The Act also identifies requirements that jurisdictions must meet in order to receive State financial assistance for flood control. In 2002, the California Floodplain Management Task Force created and recommended a proposed revised Executive Order for the State's consideration.

### *California Department of Public Health*

The Drinking Water Program, which regulates public water supply systems, is a major component of the State Department of Public Health Division of Drinking Water and Environmental Management. Regulatory responsibilities include the enforcement of the federal and State Safe Drinking Water Acts, the regulatory oversight of public water systems, issuance of water treatment permits, and certification of drinking water treatment and distribution operators. State regulations for potable water are contained primarily within the Food and Agricultural Code, the Government Code, the Health and Safety Code, the Public Resources Code, and the Water Code. Regulations are from Title 17 and Title 22 of the California Code of Regulations.

The regulations governing recycled water are found in a combination of sources including the Health and Safety Code, Water Code, and Titles 22 and 17 of the California Code of Regulations. Issues related to treatment and distribution of recycled water are generally under the influence of the RWQCB, while issues related to use and quality of recycled water are the responsibility of the California Department of Public Health.

### *State Water Quality Certification Program*

The RWQCBs also coordinate the State Water Quality Certification Program, or Section 401 of the CWA. Under Section 401, states have the authority to review any permit or license that will result in a discharge or disruption to wetlands and other waters under state jurisdiction, to ensure that the actions will be consistent with the state's water quality requirements. This program is most often associated with Section 404 of the CWA, which obligates USACE to issue permits for the movement of dredge and fill material into and from the "waters of the United States." Additionally, Section 404 requires permits for activities affecting wetlands. Prospective alterations of hydrologic features such as wetlands, rivers, and ephemeral creek beds resulting from construction require Section 404 permits.

### *Streambed Alteration Agreement*

The California Department of Fish and Wildlife (DFW) regulates streambed alterations in accordance with the California Fish and Game Code 1601–1616: Streambed Alterations. Whenever a project proposes to alter a streambed, channel, or bank, an agreement with DFW is required. The agreement is a legally binding document that describes measures agreed to by both parties to reduce risks to fish and wildlife in the stream system during the project. This process is usually coordinated with CEQA compliance by being identified as a mitigation measure to be implemented prior to any encroachment into a jurisdictional waterway.

### *California Construction Stormwater Permit*

The California Construction Stormwater Permit (Construction General Permit)1, adopted by the SWRCB, regulates construction activities that include clearing, grading, and excavation resulting in soil disturbance of at least one acre of total land area. The Construction General Permit authorizes the discharge of stormwater to surface waters from construction activities. It prohibits the discharge of materials other than stormwater and authorized non-stormwater discharges and all discharges that contain a hazardous substance in excess of reportable quantities established at 40 Code of Federal Regulations 117.3 or 40 Code of Federal Regulations 302.4, unless a separate NPDES Permit has been issued to regulate those discharges.

The Construction General Permit requires that all developers of land where construction activities will occur over more than one acre do the following:

- Complete a Risk Assessment to determine pollution prevention requirements pursuant to the three Risk Levels established in the General Permit;
- Eliminate or reduce non-stormwater discharges to storm sewer systems and other waters of the Nation;
- Develop and implement a Stormwater Pollution Prevention Plan (SWPPP), which specifies Best Management Practices (BMPs) that will reduce pollution in stormwater discharges to the Best Available Technology Economically Achievable/Best Conventional Pollutant Control Technology standards; and
- Perform inspections and maintenance of all BMPs.

In order to obtain coverage under the NPDES Construction General Permit, the Legally Responsible Person must electronically file all Permit Registration Documents with the SWRCB prior to the start of construction.

Typical BMPs contained in SWPPPs are designed to minimize erosion during construction, stabilize construction areas, control sediment, control pollutants from construction materials, and address post construction runoff quantity (volume) and quality (treatment). The SWPPP must also include a discussion of the program to inspect and maintain all BMPs.

### *Construction Dewatering Permit*

The RWQCB construction dewatering permit is required for construction activities such as excavating and trenching in areas with shallow groundwater. Dewatering is regulated under state requirements for stormwater pollution prevention and control. Discharge of non-stormwater from an excavation or trench that contains sediments or other pollutants to water bodies is prohibited. Discharge of uncontaminated groundwater from an excavation or trench is a conditionally exempted discharge by the RWQCB. Since the removed water could be contaminated by chemicals released from construction equipment, disposal of this water would require permits either from the RWQCB for discharge to surface creeks or local agencies for discharge to sewers. Dewatering operations would require a NPDES permit, or an exemption, from the RWQCB, which would establish discharge limitations for specific chemicals, as applicable.

### *State Multi-Hazard Mitigation Plan*

The State of California Multi-Hazard Mitigation Plan, also known as the State Hazard Mitigation Plan (SHMP), was approved by FEMA in 2013. The SHMP outlines present and planned activities to address natural hazards, including flooding hazards. The adoption of the SHMP qualifies the State of California for federal funds in the event of a disaster. The State is required under the Disaster Mitigation Act of 2000, described above, to review and update its SHMP and resubmit for FEMA approval at least once every 5 years to ensure the continued eligibility for federal funding. The SHMP provides goals and strategies which address minimization of risks associated with natural hazards and response to disaster situations. The SHMP notes that the primary sources of losses in the State of California are fire and flooding.

## Local Regulations

### *Los Angeles Region Basin - Region 4, Water Quality Control Plan*

As stated, the Planning Area falls within the jurisdiction of Region 4 of the Los Angeles Basin RWQCB. The Region 4 Water Quality Control Plan establishes water quality standards for compliance in the Los Angeles Region Basin. The RWQCB is also responsible for implementing the provisions of the General Permit, including reviewing SWPPPs and monitoring reports, conducting compliance inspections, and taking enforcement actions.

### *Greater Los Angeles County Region Integrated Regional Water Management Plan*

The Greater Los Angeles County Region Integrated Regional Water Management Plan (GLACR IRWM) was updated in 2014. IRWM Plans are regional plans designed to improve collaboration in water resources management. The first IRWM Plan for GLACR IRWM was published in 2006 following a multi-year effort among water retailers, wastewater agencies, stormwater and flood managers, watershed groups, the business community, tribes, agriculture, and non-profit stakeholders to improve water resources planning in the Los Angeles Basin. It provides a mechanism for: 1) coordinating, refining, and integrating existing planning efforts within a comprehensive, regional context; 2) identifying specific regional and watershed-based priorities for implementation projects; and 3) providing funding support for the plans, programs, projects, and priorities of existing agencies and stakeholders.

### *Los Angeles County Municipal Stormwater Permit (MS4 Permit)*

As discussed above, the Clean Water Act amendments of 1987 established a framework for regulating stormwater discharges from municipal, industrial, and construction activities under the NPDES program. For the Planning Area, the program requires compliance with Municipal Permit Order No. R4-2012-0175 and its Amendments, issued by the California RWQCB, Los Angeles Region. Pursuant to the Municipal Permit issued by the Los Angeles RWQCB, Permittees are required to develop and implement construction and permanent stormwater BMP regulations addressing stormwater pollution associated with private and public development projects. Development projects are also required to include BMPs to reduce pollutant discharges from the project site in the permanent design. The Municipal Stormwater Permit outlines the individual responsibilities of the Permittees including, but not limited to, the implementation of management programs, BMPs, and monitoring programs, within their jurisdiction and their watershed(s). BMPs associated with the final design are described in the Standard Urban Stormwater Mitigation Plan. The County of Los Angeles requires a stormwater management plan to describe potential construction and post-construction pollutants and identify BMPs to protect water resources.

In addition, the RWQCB's MS4 permit requires control of hydromodification, or changes in the natural flow pattern (surface flow or groundwater) of an area due to development. Hydromodification can be managed by reducing runoff flow and volume, along with including BMPs that reduce volume.

### *City of Diamond Bar Water Pollution Control Regulations*

Diamond Bar Municipal Code (DBMC) Section 13.00.050, requires that water pollution control plants and facilities be designed so as to produce an effect which will not pollute underground or surface waters, create a nuisance, or menace the public peace, health or safety.

In addition, the DBMC Section 13.00.1910, requires that a person shall not discharge or deposit or cause or suffer to be discharged or deposited at any time or allow the continued existence of a deposit of any material which may create a public nuisance, or menace to the public health or safety, or which may pollute underground or surface waters, or which may cause damage to any storm drain channel or public or private property.

### *City of Diamond Bar Subdivisions and Floodplain Management Ordinance*

DBMC Section 18.108.010, promotes public health, safety, and general welfare, and to minimize public and private losses due to flood conditions in specific areas by provisions designed to:

- Protect human life and health;
- Minimize expenditure of public money for costly flood control projects;
- Minimize the need for rescue and relief efforts associated with flooding and generally undertaken at the expense of the general public;
- Minimize prolonged business interruptions;

- Minimize damage to public facilities and utilities such as water and gas mains, electric, telephone and sewer lines, streets and bridges located in areas of special flood hazard;
- Help maintain a stable tax base by providing for the second use and development of areas of special flood hazard so as to minimize future flood blight areas;
- Ensure that potential buyers are notified that property is in an area of special flood hazard; and
- Ensure that those who occupy the areas of special flood hazard assume responsibility for their actions.

### *City of Diamond Bar Stormwater and Urban Runoff Pollution Control Ordinance*

DBMC Section 8.12.1630, ensures that the future health, safety and general welfare of the citizens of the City and the water quality of the receiving waters of the County of Los Angeles and surrounding coastal areas by:

- Reducing pollutants in storm water discharges to the maximum extent practicable;
- Regulating illicit connections and illicit discharges and thereby reducing the level of contamination of storm water and urban runoff into the MS4; and
- Regulating non-storm water discharges to the MS4.

In addition, the ordinance aims to protect and enhance the quality of watercourses, water bodies, and wetlands within the city in a manner consistent with the Federal Clean Water Act, the California Porter-Cologne Water Quality Control Act and the municipal MS4 permit.

Further, the ordinance is also intended to provide the city with the legal authority necessary to control discharges to and from those portions of the municipal storm water system over which it has jurisdiction as required by the municipal MS4 permit and to hold dischargers to the municipal storm water system accountable for their contributions of pollutants and flows.

Lastly, the ordinance sets forth requirements for the construction and operation of certain developments and projects are compliant with the storm water mitigation measures prescribed in the current version of the Lower San Gabriel Valley Low Impact Development Ordinance (LID) approved by the Los Angeles RWQCB (the LID requirements supersede the Standard Urban Stormwater Mitigation Plan, or SUSMP). .

### *Los Angeles County General Plan 2035*

The Los Angeles County General Plan 2035, which applies to unincorporated portions of the county, contains a Hillside Management Area Ordinance that aims to preserve significant natural features in hillside areas. In addition, the Los Angeles County General Plan 2035 contains a Safety Element in an effort to reduce the potential risk of death, injuries, and economic damage resulting from natural and man-made hazards. Policies seek to minimize potential risks through education, information provision, and emergency preparedness; protect people and property from flooding and other natural and manmade disasters; provide adequate emergency evacuation and access; and provide a Hazard Mitigation Plan.

# Impact Analysis

## SIGNIFICANCE CRITERIA

For the purposes of this EIR, a significant adverse impact would occur if implementation of the Proposed Project would:

**Criterion 1:** **Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality;**

**Criterion 2:** **Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin;**

**Criterion 3:** **Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:**

- **i. Result in substantial erosion or siltation on- or off-site,**
- **ii. Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite,**
- **iii. Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff, or**
- **iv. Impede or redirect flood flows;**

**Criterion 4:** **Risk release of pollutants in flood hazard, tsunami, or seiche zones due to project inundation; or**

**Criterion 5:** **Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.**

## METHODOLOGY AND ASSUMPTIONS

Potential impacts on surface and groundwater quality and the potential risk of flooding resulting from the anticipated development in the Proposed Project were evaluated based on relevant information from FEMA, Los Angeles County, and the City. Programmatic impacts are discussed in broad, qualitative terms. This assessment does not satisfy the need for project-level California Environmental Quality Act (CEQA) analysis for individual projects.

## IMPACTS

### Impact 3.8-1 Implementation of the Proposed Project would not violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality. (*Less than Significant*)

A community's impact on water quality is closely related to the hydrologic context of a region and the sources and types of pollutants that can further degrade or impair the area's water resources. As additional development occurs in the Planning Area, impervious surfaces may increase due to the creation or expansion of roads, parking lots, buildings, and other infrastructure. Impervious surfaces generate higher runoff volumes than pervious surfaces. In addition, impervious surfaces collect urban pollutants that can be mobilized during a rain fall event. Thus, increasing impervious surfaces may also increase the amount of urban pollution in the storm water runoff (e.g. sediment, fertilizers, bacteria, metal, trash, etc.). These negative water quality impacts can be mitigated through various storm water best management practices.

Other sources of water quality impacts include direct discharge associated with industrial/commercial activities, automobiles, agriculture, and herbicides. Pollutant sources may be generated by past waste disposal practices and chemicals and fertilizers applied to landscaping. Contaminants may include sediment, PCBs/mercury, hydrocarbons and metals, pesticides, nutrients, bacteria, and trash.

The Proposed Project would have a significant environmental impact if it would result in the violation of water quality standards and waste discharge requirements set out in Municipal Permit Order No. R4-2012-0175, NPDES Permit CAS004001, issued by the Los Angeles RWQCB. Violation of these permits could occur if the development anticipated in the Proposed Project would substantially increase pollutant loading levels in the sanitary sewer system or in groundwater underlying the city, either directly through the introduction of pollutants generated by industrial land uses, or indirectly through stormwater pollution. As NPDES Permit CAS004001 is based on the federal Clean Water Act, compliance with the Porter–Cologne Water Quality Control Act (Division 7 of the Water Code, commencing with Section 13000), applicable state and federal regulations, all applicable provisions of statewide water quality control plans and policies adopted by the SWRCB, the Basin Plan adopted by the RWQCB, the California Toxics Rule, the California Toxics Rule Implementation Plan, and NPDES would ensure compliance with other applicable plans and regulations pertaining to water quality.

The Proposed Project could allow for potential development and redevelopment within the city that would increase the area of impervious surfaces and could therefore increase the amount of runoff and associated pollutants during both construction and operation. However, as described in the Regulatory Setting section above, all construction activity within the Planning Area that has the potential to negatively affect water quality is required to comply with the MS4 Permit. The City's Water Pollution Ordinance, Floodplain Management Ordinance, and Stormwater and Urban Runoff Pollution Control Ordinances, discussed above, further protect water quality in the Planning Area.

Implementation of practices required by the MS4 Permit would reduce the volume of runoff from impervious surfaces and increase the amount of natural filtration of pollutants from stormwater occurring on site, generally improving the quality of stormwater before it enters the city's and/or county's stormwater system.

Furthermore, the Proposed Project contains goals and policies pertaining to water quality, as listed below. The proposed goals and policies promote the protection of the city's natural slopes, open space, reduce impervious areas, ensure preparation and implementation of applicable water quality plans, require incorporation of BMPs, and otherwise ensure compliance with the MS4 Permit and other related regulations. Overall, the proposed General Plan's policies would promote improved water quality in the Planning Area and continued compliance with federal, state, and local water quality regulations, and would ensure that water quality is protected to the maximum extent practicable. Therefore, implementation of the Proposed Project would ensure that impacts are less than significant.

*Proposed General Plan Policies that Address the Impact*

Land Use & Economic Development

LU-G-28. Preserve open space, ridgelines, and hillsides to protect the visual character of the city, provide for public outdoor recreation, conserve natural resources, support groundwater recharge, protect existing and planned wildlife corridors, and ensure public safety.

LU-P-42. Avoid expanses of surface parking and require the consolidation and location of parking to the rear or side of buildings.

LU-P-55. Preserve publicly-owned, undeveloped hillsides, as well as privately-owned hillsides with an Open Space General Plan designation, as natural open space in perpetuity. On privately-owned property which has a residential land use designation, preserve hillsides as natural open space through Diamond Bar's Hillside Management Ordinance by allowing residential development only at the permitted densities and where development would not detract from the protection and overall perception of the hillsides as natural topographic and ecological features, or negatively impact public safety or welfare.

LU-P-56. Ensure that development on privately-owned, residentially designated land in hillside areas is compatible with surrounding natural areas by requiring that development:

a. Minimizes—as articulated by the landform grading criteria of the Hillside Management Ordinance—excavation, grading, and earthwork to retain natural vegetation and topography;
b. Preserves existing vistas of significant hillside features such as ridgelines, particularly from public places;
c. Does not create unsafe conditions;

d. Incorporates and is sensitive to natural contours and land forms in its site design, including hydrological features;
e. Preserves natural watersheds, including existing vegetation within undeveloped hillside areas to the maximum extent feasible, including mature trees and native plant materials;
f. Permits fuel modification as part of the Fire District's approved fuel modification program;
g. Utilizes planting palettes consisting of drought tolerant, fire resistant, plants with colors similar to those of native materials in the surrounding area; and
h. Groups plants within swale areas to more closely reflect natural conditions within landform graded slopes.

Community Character & Placemaking

CC-G-9. Encourage development that takes advantage of the focus area's dramatic topography by establishing unique open spaces and open space connections.

CC-P-12. Develop and enforce private slope maintenance standards for properties with rear descending slopes that face public streets, with special emphasis on those along Grand Avenue, Diamond Bar Boulevard, Golden Springs Drive, Pathfinder Road, and the freeways.

CC-P-25. Encourage the design of shared parking for commercial and office uses where possible.

CC-P-26. Establish reduced minimum commercial parking requirements for all development within new mixed-use land use designations. Reduced parking requirements should be supported by proximity to transit, shared parking, and technologies that, once mainstreamed, would reduce the need for conventional parking layouts.

Resource Conservation

RC-G-3. Preserve to the extent possible open space ridgelines, hilltops, and prominent slopes for aesthetic, biological and natural resource conservation, and safety purposes.

RC-P-24. Protect and, where feasible, enhance or restore the City's waterways and drainages, preventing erosion along the banks, removing litter and debris, and promoting riparian vegetation and buffers.

RC-P-25. Control and improve the quality of stormwater entering local water bodies by requiring new development to incorporate best management practices (BMPs), and Low Impact Development (LID) strategies that support on-site retention, detention, and/or treatment of stormwater through means such as infiltration, evapotranspiration, biofiltration, and rainfall harvest and use.

RC-P-26. Require the implementation of a stormwater pollution prevention plan (SWPPP), and inspection by a Construction General Permit Qualified SWPPP Practitioner (QSP), during construction and post construction to limit land disturbance activities such as clearing and grading and cut-and-fill; avoid steep slopes, unstable areas, and erosive soils; and minimize disturbance of natural vegetation and other physical or biological features important to preventing erosion or sedimentation.

RC-P-27. Require that post-development peak stormwater runoff discharge rates do not exceed the estimated pre-development rate and that dry weather runoff from new development not exceed the pre-development baseline flow rate to receiving water bodies.

Public Safety

PS-G-2. Implement measures aimed at preventing the potential for loss of life, physical injury, property damage, public health hazards, and nuisances from the effects of a 100-year storm and associated flooding.

PS-P-25. On sites with known contamination of soil and groundwater, work with State and local agencies to continue to identify and compel cleanup of such sites to ensure that construction workers, future occupants, the public, and the environment are adequately protected from hazards associated with contamination.

*The City may reference the State Water Resources Control Board's Geotracker database and the California Department of Toxic Substances Control's Envirostor database to identify potentially hazardous sites. Figure 7-7 shows sites identified through these databases in 2019.*

### *Mitigation Measures*

None required.

### Impact 3.8-2 Implementation of the Proposed Project would not substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin. (*Less than Significant*)

As described in the Environmental Setting section above, the Planning Area is located in the Puente and Spadra Groundwater Basins. However, both groundwater basins do not contain potable water quality due to high levels of total dissolved solids and nitrates. As such, groundwater production is distributed within the recycled water distribution system. Therefore, the Proposed Project would not substantially decrease groundwater supplies or interfere substantially with groundwater recharge. Groundwater supplied recycled water could be a potential source of supply for landscape irrigation needs associated with potential additional development and redevelopment within the Planning Area, reducing potential impacts to imported and surface potable water supplies. The proposed General Plan policies listed below would help to conserve groundwater in the Planning Area. In addition, the proposed General Plan policies listed below would help to preserve permeable surfaces in the Planning Area. Furthermore, the City's Water Pollution Ordinance, described in the Regulatory Section above, protects groundwater from potential sources of contamination. Therefore, impacts are less than significant.

*Proposed General Plan Policies that Address the Impact*

Land Use & Economic Development

LU-G-26. Should Los Angeles County choose to cease operations of the Diamond Bar Golf Course or reduce the area of the Golf Course, promote development of the portion of the Golf Course north of Grand Avenue predominantly as a public park/consolidated golf course with additional community or civic uses, and the portion south of Grand Avenue as a walkable mixed-use community and regional destination offering retail, dining, and entertainment uses; plazas and community gathering spaces; supporting residential uses; and civic and other supporting uses.

LU-G-28. Preserve open space, ridgelines, and hillsides to protect the visual character of the city, provide for public outdoor recreation, conserve natural resources, support groundwater recharge, protect existing and planned wildlife corridors, and ensure public safety.

Resource Conservation

RC-G-8. Protect natural groundwater recharge areas and regional spreading grounds.

RC-G-9. Conserve natural open spaces, biological resources, and vegetation to promote groundwater recharge.

RC-G-10. Minimize the consumption and waste of potable water through water conservation and use of reclaimed water.

RC-G-11. Work with regional organizations and other jurisdictions to manage groundwater resources of the San Gabriel Valley Basin.

RC-G-12. Pursue methods to control, capture, and reuse stormwater runoff for the purposes of groundwater recharge and local water recovery.

RC-P-16. Coordinate with local water agencies to encourage and expand the use of reclaimed water, stored rainwater, or household gray water for irrigation and other appropriate uses and consider construction of dual water systems, where feasible, for development

RC-P-17. Continually evaluate and upgrade the efficiency of City irrigation systems, prioritizing the use of reclaimed water.

RC-P-18. Carry out a comprehensive public outreach program to educate residents and businesses about water conservation, stormwater pollution prevention, and water reuse opportunities and advantages.

RC-P-19. Require new development to reduce the waste of potable water through the use of drought-tolerant plants, efficient landscape design and application, and reclaimed water systems.

RC-P-20. Require the implementation of the latest water conservation technologies into new developments.

RC-P-21. Require builders to provide information to prospective buyers or tenants within the City of Diamond Bar regarding drought-tolerant planting concepts.

RC-P-22. Require the use of mulch in landscape areas to improve the water holding capacity of the soil by reducing evaporation and soil compaction in accordance with the standards set forth by state law and the City's Water-Efficient Landscape Ordinance.

RC-P-23. Continue to partner with other local agencies to manage surface and groundwater resources through the implementation of the Walnut Valley Urban Water Management Plan and regional watershed and groundwater planning efforts.

<u>Public Facilities</u>

PF-P-40. Pursue the transfer of ownership of all portions of the storm drain system within Diamond Bar to the Los Angeles County Flood Control District (LACFCD).

PF-P-41. Work with the LACFCD to complete a drainage master plan for Diamond Bar with a view to identifying any deficiencies within the city's drainage infrastructure system, and update it periodically, as needed.

Community Health & Sustainability

CHS-P-56. Prepare a Landscape Manual or otherwise incorporate landscape standards in the Municipal Code to mitigate urban heat island effects and contribute to long-term carbon storage through maximum tree canopy coverage and minimum asphalt and paving coverage particularly for denser areas like the planned Town Center and mixed-use neighborhoods, existing shopping centers, and industrial and other areas with expansive surface parking. Consider the reflectance of stone and rock ground cover in heat generation.

CHS-P-57. Encourage water conservation, drought-tolerant landscaping and the use of greywater and reclaimed and recycled water, where appropriate, with a view to reducing water use.

CHS-P-59. Increase the efficiency of water usage in public places, such as irrigation in public parks, and utilize drought-tolerant landscaping in City parks and streetscapes.

*Mitigation Measures*

None required.

**Impact 3.8-3 Implementation of the Proposed Project would not substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:**

**i. Result in substantial erosion or siltation on- or off-site,**
**ii. Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite,**
**iii. Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff, or**
**iv. Impede or redirect flood flows. (*Less than Significant*)**

Implementation of the Proposed Project would not involve the direct alteration of existing streams, rivers, or other drainage patterns. However, potential future development or redevelopment allowed anticipated by the Proposed Project could impact the existing drainage system. Increases to impervious surfaces, such as roofs, patios, driveways, and parking areas could lead to increased stormwater flow. The development anticipated by the Proposed Project could increase the amount of impervious surfaces within the city and could therefore increase runoff from these sites into the local storm drains in the Planning Area. An increase in runoff volumes could result in hydromodification effects—such as erosion, siltation, and flooding—on the hydrological systems within the Planning Area, which occur when rainfall runoff is increased from impervious areas

above the natural rainfall rate that would otherwise occur. However, the majority of development that may occur in the Planning Area is redevelopment of areas with already impervious surfaces.

Furthermore, the City recognizes the importance of water quality and preventing hydromodification. As described in the Regulatory Setting section above, any development that would occur under the Proposed Plan would be subject to City's Floodplain Management and Stormwater and Urban Runoff Pollution Control Ordinances that help prevent flood damage resulting from hydromodification. Adherence to the City's ordinances would limit surface runoff from development under the Proposed Project, reducing siltation and erosion. In addition, the proposed General Plan's goals and policies are intended to preserve natural watercourses and open spaces, and to ensure future development incorporates BMPs to reduce runoff from a site. For these reasons, impacts associated with the Proposed Project would be less than significant.

### *Proposed General Plan Policies that Address the Impact*

Policies LU-G-26, LU-G-28, CC-G-9, RC-G-3, PS-G-2, LU-P-56, CC-P-12, CC-P-26, RC-P-24, RC-P-25, RC-P-26, RC-P-27, PF-P-40, and PF-P-41 as discussed under Impacts 3.8-1 and 3.8-2, in addition to the following:

#### Land Use & Economic Development

LU-P-2. Allow clustering or transferring of all or part of the development potential of a site to a portion of the site to protect significant environmental resources such as vegetated habitats, sensitive species, wildlife movement corridors, water features, and geological features within proposed developments as open space if the developer takes action to preserve the open space in perpetuity.

*Preservation can occur through methods including, but not limited to, dedication to the City or a conservation entity such as a conservancy, mitigation bank, or trust, or through conservation easements, deed restrictions, or other means.*

LU-P-4. Monitor and evaluate potential impacts of proposed adjacent, local, and regional developments to anticipate and require mitigation to the greatest extent feasible to reduce land use, circulation, and economic impacts on Diamond Bar.

LU-P-5. Ensure that adequate public services, facilities, and infrastructure are available or provided to support new development, including water, wastewater, stormwater, solid waste, transportation, public safety, and parks.

LU-P-6. Require new development to pay its fair share of the public facilities and off-site improvements needed to serve the proposed use.

LU-P-22. Require commercial development to incorporate outdoor green spaces appropriate and usable for patrons and visitors.

LU-P-42. Avoid expanses of surface parking and require the consolidation and location of parking to the rear or side of buildings.

LU-P-44. Require that a master plan or specific plan be prepared for any future development within the Community Core overlay area that creates a master-planned mixed-use, pedestrian-oriented community and regional destination. Approximately 100 acres north of Grand Avenue is to support a park or consolidated golf course along with additional community or civic uses. The southern portion is to accommodate a mix of uses emphasizing destination and specialty retail, dining, and entertainment, including opportunities for residential, hospitality, and community and civic uses.

Community Character & Placemaking

CC-G-9 Encourage development that takes advantage of the focus area's dramatic topography by establishing unique open spaces and open space connections.

CC-P-6. Prioritize sustainability in site design. When incorporating on-site stormwater management through the use of bioswales, rain gardens, permeable pavement, and/or other available low-impact development technologies, require such features to be aesthetically integrated into the site design.

CC-P-49. Encourage reductions in surface parking and allow for the development of consolidated parking structures, provided that they are screened from view from Diamond Bar Boulevard and Golden Springs Drive.

Resource Conservation

RC-G-7. Protect waterways—including creeks, riverines, artesian springs, seeps, and wetlands—and watersheds in Diamond Bar from pollution and degradation as a result of urban activities.

Public Safety

PS-P-7. Work with the Federal Emergency Management Agency (FEMA) to ensure that the City's floodplain information is up to date with the latest available hydrologic and hydraulic engineering data.

PS-P-8. Continue to implement flood control programs, such as the City's Grading and Floodplain Ordinances, that reduce flood hazards to comply with State flood risk management requirements.

PS-P-9. Consider the impacts to health and safety from potential flooding on future development in flood-prone areas, including those identified as being within the 100- or 500-year floodplains. Require installation of protective structures or other design measures to protect proposed building and development sites from the effects of flooding in these areas.

*Figure 7-4 shows flood zones in and around the Planning Area based on FEMA's 2016 flood hazard data.*

PS-P-10. Ensure that a drainage study has been completed by a qualified engineer as a prerequisite to new development or the intensification of existing development, certifying that the proposed development will be adequately protected, and that implementation of the development proposal will not create new downstream flood hazards.

PS-P-11. Use the drainage master plan developed in coordination with the Los Angeles County Public Works Department to assess existing and future flood control needs and related improvements within Diamond Bar.

PS-P-12. As part of the Capital Improvement Program, consider and incorporate flood control improvements identified in the drainage master plan that specifies funding and timing of prioritized improvements. Coordinate the City's Capital Improvement Program with planned County improvements.

*Mitigation Measures*

None required.

### Impact 3.8-4 Implementation of the Proposed Project would not risk release of pollutants in flood hazard, tsunami, or seiche zones due to project inundation. (*Less than Significant*)

The Planning Area is located sufficiently inland to be out of what would be considered a potential hazard area for seiches, tsunamis, and sea level rise. In addition, the vast majority of the Planning Area is outside of the flood hazard zone. Therefore, these impacts are less than significant. Compliance with the City's existing regulations pertaining to flooding hazards, along with the proposed General Plan policies listed below, ensure the impacts associated with flood hazard zones would be less than significant.

*Proposed General Plan Policies that Address the Impact*

Policies LU-P-44, LU-P-55, LU-P-56, PS-G-2, PS-P-7, PS-P-8, PS-P-9, PS-P-10, PS-P-11, PS-P-12, CHS-P-57, and CHS-P-59 as discussed under Impacts 3.8-1, 3.8-2, and 3.8-3, in addition to the following:

<u>Public Safety</u>

PS-P-13. Reduce the flooding impact of a storm event by enhancing the city's green infrastructure system to complement the gray infrastructure system.

*Mitigation Measures*

None required.

### Impact 3.8-5 Implementation of the Proposed Project would not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan. (*Less than Significant*)

As described under Impact 3.8-1, the development anticipated by the Proposed Project could potentially degrade water quality; however, development would be subject to the RWQCB requirements and the City Municipal Code, as described above. Furthermore, the proposed General Plan contains goals and policies pertaining to water quality, as described previously. Overall, the proposed General Plan's goals and policies would promote improved water quality in the Planning Area and continued compliance with federal, state, and local water quality regulations, and would ensure that water quality is protected to the maximum extent practicable. Therefore, the Proposed Project would not substantially degrade water quality and impacts would be less than significant.

*Proposed General Plan Policies that Address the Impact*

Policies CC-P-6, RC-G-9, RC-G-10, RC-G-12, RC-P-16, RC-P-17, RC-P-18, RC-P-19, RC-P-20, RC-P-22, RC-P-23, RC-P-24, RC-P-26, RC-P-27, PF-P-40, PF-P-41, PS-P-13, PS-P-25, and CHS-P-55 as discussed under Impacts 3.8-1, 3.8-2, 3.8-3, and 3.8-4.

*Mitigation Measures*

None required.

# 3.9 Land Use and Housing

This section assesses potential environmental impacts from future development anticipated by the Proposed Project, as related to land use and housing, including evaluation of Proposed Project consistency with existing land use plans and regulations, community division, and housing displacement. This section describes existing land uses, and housing in the Planning Area, as well as relevant federal, State, and local regulations and programs. Population and growth inducement are addressed in Section 5.1.

There were eight comments on the Notice of Preparation (NOP) regarding topics covered in this section. Those comments include the following topics specific to Land Use and Housing.

- The City of Chino Hills stated that changes to the Diamond Bar General Plan Land Use Diagram appear reasonable, and requests that Diamond Bar include a policy within its General Plan Update to coordinate with the City of Chino Hills regarding plans for the future development of Tres Hermanos. Proposed General Plan policy RC-P-8 accommodates this request.
- A member of the public stated that Tonner Canyon and 75 percent of Tres Hermanos Ranch should remain as open space and wildlife; Diamond Bar should oppose mandates from the State, Los Angeles County, and the Southern California Association of Governments (SCAG) to maximize high-density mixed-use development; and Diamond Bar should limit infill and the size and scope of any proposed mixed-use projects. The proposed General Plan designates the SOI, which includes Tonner Canyon, as a Significant Ecological Area and includes multiple policies aimed at preserving open space within Tres Hermanos and throughout the City of Diamond Bar. While the Proposed Project encourages mixed-use projects, the proposed General Plan provides allowable density ranges that are comparable with existing densities. Mixed-use development under the Proposed Project is concentrated within four focus areas and the Proposed Project aims to preserve existing neighborhoods.
- A member of the public stated that Figure 3 of the Notice of Preparation properly colored the mobile home parks as high-density residential in order to delineate them as separate from the transit-oriented mixed-use area. This comment is acknowledged and carried forward in figures found within this chapter.
- A member of the public stated that designation of the 720-acre area in the northeast corner of Diamond Bar as Planning Area would be inconsistent with the 2014 update to the 1995 Diamond Bar Zoning Map, which designates this area as Agricultural, and that this area should go through the entire zoning process update with public hearings before this change. This comment refers to the portion of Tres Hermanos Ranch within Diamond Bar. The definition of the "Planning Area" land use designation is as follows: "Designed to

conserve open space resources and is to be applied to properties where creative approaches are needed to integrate future development with existing natural resources. All proposed development within these designated areas shall require the formation of a Specific Plan pursuant to the provisions of Government Code Section 65450." Multiple policies in the proposed General Plan are explicitly designed to conserve open space in Diamond Bar, including Tres Hermanos Ranch. Additionally, the Tres Hermanos Conservation Authority has acquired Tres Hermanos Ranch and limits use of the property to "open space, public use or preservation." Consistency with the Zoning Ordinance is discussed under Impact 3.9-2.

- A representative from Hills for Everyone requested that the EIR address how the General Plan will incorporate sustainable planning measures, ensure new residential buildings are pre-wired and pre-plumbed for solar, ensure community design features are incorporated into new projects, meet Regional Housing Needs Assessment (RHNA) goals, ensure minimal impacts to local schools and community centers, and ensure a balance between jobs and housing. Sustainable planning measures, solar-equipped facilities, and community design features are discussed in the Climate Action Plan and proposed General Plan Community Character and Community Health and Sustainability chapters. RHNA goals are discussed in Chapter 5: CEQA Required Conclusions. Impacts to schools and community facilities are discussed in Chapter 3.11: Public Facilities and Recreation. The projected jobs-housing balance is discussed in the Environmental Setting below.
- SCAG provided relevant goals of the 2016 Regional Transportation Plan/Sustainable Communities Strategy and demographic and growth forecasts for the City of Diamond Bar and the SCAG region for years 2020, 2035, and 2040. Compliance with the RTP/SCS goals is discussed in this chapter and Chapter 3.5: Energy, Climate Change, and Greenhouse Gases. Growth-inducing impacts of the Proposed Project are further discussed in Chapter 5: CEQA Required Conclusions.
- Southern California Edison stated that the General Plan Land Use Diagram provided in the NOP contains an error which shows the division of the SCE property; however, this would not unreasonably interfere with the exercise of any easements and/or facilities held by SCE. The comment is noted. The proposed General Plan and proposed General Plan land use diagram (shown in Figure 3.9-3) does not propose division of this property or relocation of facilities.
- A representative from the Sierra Club provided input on identifying Significant Ecological Areas and requested that CEQA categorical exemptions be denied on residential development projects which potentially impact the wildland interface they overlay and align, all projects bordering wildland require a 200 foot protective buffer, and old development projects be denied "grandfathered" MND/EIR approvals and instead be required to perform current protocol surveys. The Sierra Club also requested that land designated as open space by deed, open space easement, or map restriction should not have its protections removed. This comment pertains to proposed General Plan land use and resource conservation policies and does not affect the analysis presented in this chapter.

# Environmental Setting

## PHYSICAL SETTING

The City of Diamond Bar is located at the far eastern edge of Los Angeles County and the San Gabriel Valley, within 30 miles driving distance of the cities of Los Angeles, Riverside, and Irvine. The western edge of the City lies at the intersection of State Route 57 (SR-57) and SR-60, with SR-57 connecting the City to Interstate 10 (I-10) one and a half miles to the north and SR-60 connecting to SR-71 roughly two miles to the east. The Industry Metrolink Station lies on Diamond Bar's northern border with the City of Industry, providing east-west transit connections to Los Angeles and Riverside.

The Planning Area for the General Plan is defined as the land area addressed by the General Plan's policies and land use designations. The Planning Area encompasses 13,039 acres, of which 9,526 acres (73 percent of the total) is in the City limits and the remaining 3,513 acres (27 percent) is in the Sphere of Influence (SOI). It is bounded by the cities of Industry and Walnut to the north, Pomona and Chino Hills to the east, and Brea to the south, and unincorporated Los Angeles County to the west. While Diamond Bar does not have jurisdiction in areas outside of its city limits, general plans commonly consider land outside a city's jurisdictional boundaries that "bear relation to its planning" (California Government Code Section 65300). This typically includes a city's SOI and may also include additional land.

The SOI is defined as the ultimate physical boundary and service area of the City, and it encompasses both incorporated and unincorporated territory that is envisioned to be the City's ultimate service area. The Los Angeles County Local Agency Formation Commission (LAFCO) reviews and approves proposed boundary changes and annexations affecting the SOI. The SOI, which has remained relatively constant since it was first approved in 1990, includes part of Tonner Canyon, an undeveloped wooded canyon that stretches in a crescent shape from SR-57 northwest to SR-60.

### Existing Land Use

Diamond Bar's overall land use pattern is characterized by large swaths of single-family residential development throughout the city studded with clusters of multi-family residential and non-residential uses. Some of the single-family and multi-family residential uses in the City are part of gated communities, including The Country, an exclusive gate-guarded community of over 800 large-lot, detached single-family homes in the southeastern hills. Multi-family residential development tends to be located along the major thoroughfares of Diamond Bar Boulevard, Golden Springs Drive, and Brea Canyon Road, and is often co-located with non-residential uses.

Commercial and office uses tend to cluster at intersections (such as Diamond Bar Boulevard and Golden Springs Drive, and Diamond Bar Boulevard and Grand Avenue), along major thoroughfares, and along the freeways, and tend to take the form of shopping centers and office parks. Industrial uses are concentrated in the western part of the City along the border with the City of Industry, among residential uses. The Gateway Corporate Center, a master-planned 255-acre business park, is located along the east side of the SR-57/60 confluence. The Gateway center is

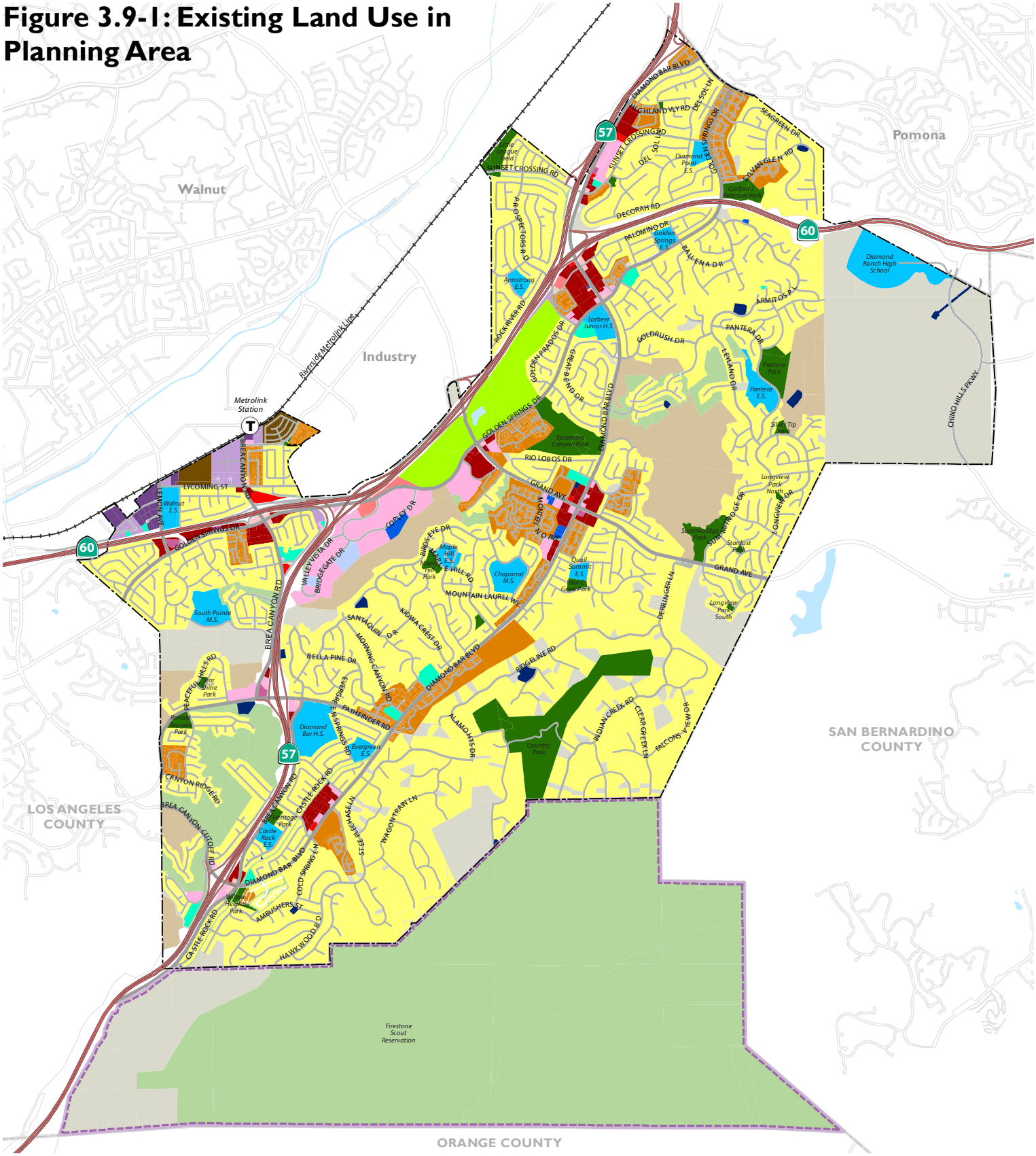
home to the South Coast Air Quality Management District and several Fortune 500 companies and is a premier business center in the region due to its proximity to the freeways and the Ontario and John Wayne airports.

The City is also dotted with a variety of open space slopes and areas that follow its many ridges and hillsides. Public parks and recreational facilities are found mostly in the eastern half of the City, bordering residential uses. The County-operated Diamond Bar Golf Course occupies a substantial portion of land in the north-central part of the City. Other public uses, such as schools and utilities, are relatively evenly distributed throughout the City. Undeveloped areas and open spaces are prevalent in the Planning Area's many steep hillsides, including the Tres Hermanos area to the northeast by Chino Hills Parkway, as well as the entirety of the SOI to the south of the City limits.

Residential uses account for half of all land within the City and 37 percent of land in the Planning Area overall. The vast majority of residential uses (89 percent) are single-family detached homes. Vacant land makes up 18 percent of all land within the City limits and 16 percent of land in the Planning Area overall, which includes areas within the City that are naturally undeveloped due to environmental constraints and other land use restrictions, but which are not formally developed or maintained as parkland.[1] Parks and open spaces account for another eight percent of land in the City, and over 30 percent of land in the Planning Area due to the predominance of open space in the SOI. Public and community facilities make up four percent of land in the City and three percent of the Planning Area, which are very similar proportions to those for commercial and mixed uses. Industrial uses account for less than one percent of land in the City and the Planning Area. Existing land uses are summarized in Table 3.9-1, and Figure 3.9-1 shows the overall pattern of existing use of land in the Planning Area.

[1] Open space is defined as any parcel or area of land or water that is essentially unimproved and devoted to open space use, which may include the preservation of natural resources, the managed production of resources, outdoor recreation, the protection of public health and safety, support for the mission of military installations, or the protection of tribal cultural resources (California Government Code Sections 51075 and 65560). Unimproved land that is designated for other uses is considered vacant land rather than open space but may become open space if it is dedicated, acquired by a public entity, or otherwise preserved in perpetuity. Dedicated open spaces are designated on the Land Use Diagram with the Open Space land use classification.

# Figure 3.9-1: Existing Land Use in Planning Area




*Source: City of Diamond Bar 2016; Dyett & Bhatia, 2016*

**Table 3.9-1: Existing Land Use in the Planning Area**

| | *City of Diamond Bar* | | *Sphere of Influence* | | *Total Planning Area* | |
|---|---|---|---|---|---|---|
| *Existing Use of Land Category* | *Acres* | *Percentage* | *Acres* | *Percentage* | *Acres* | *Percentage* |
| **Residential** | **4,772** | **50%** | **-** | **-** | **4,772** | **37%** |
| Single-family Residential | 4,257 | 45% | - | - | 4,257 | 33% |
| Multi-family Residential | 479 | 5% | - | - | 479 | 4% |
| Mobile Home Park | 36 | <1% | - | - | 36 | <1% |
| **Parks and Open Spaces** | **1,399** | **8%** | **3,156** | **90%** | **3,949** | **30%** |
| Open Space, Greenways, Trails, Natural Areas | 311 | 3% | 3,156 | 90% | 3,467 | 27% |
| Golf Course | 172 | 2% | - | - | 172 | 1% |
| Parks & Recreation | 310 | 3% | - | - | 310 | 2% |
| **Public and Community Facilities** | **345** | **4%** | **-** | **-** | **345** | **3%** |
| Schools/Educational Facilities | 279 | 3% | - | - | 279 | 2% |
| Religious/Institutional Facilities | 42 | <1% | - | - | 42 | <1% |
| Hospital/Medical Center | 13 | <1% | - | - | 13 | <1% |
| Public Facilities | 11 | <1% | - | - | 11 | <1% |
| **Commercial, Office, and Mixed Use** | **340** | **4%** | **-** | **-** | **340** | **3%** |
| Office/Banks/Financial Services | 166 | 2% | - | - | 166 | 1% |
| General/Retail Commercial | 135 | 1% | - | - | 135 | 1% |
| Hotel/Motel/Lodging Commercial | 12 | <1% | - | - | 12 | <1% |
| Drive-thru Commercial | 12 | <1% | - | - | 12 | <1% |
| Service Station | 8 | <1% | - | - | 8 | <1% |
| Mixed Commercial & Office Uses | 7 | <1% | - | - | 7 | <1% |
| **Industrial** | **72** | **1%** | **-** | **-** | **72** | **1%** |
| Light Industrial | 44 | <1% | - | - | 44 | <1% |
| General Industrial/Warehousing | 27 | <1% | - | - | 27 | <1% |
| **Vacant** | **1,673** | **18%** | **357** | **10%** | **2,030** | **16%** |
| Vacant | 1,137 | 12% | 357 | 10% | 1,494 | 12% |
| Vacant Natural Undeveloped Areas | 536 | 6% | - | - | 536 | 4% |
| **Other** | **1,531** | **16%** | **-** | **-** | **1,531** | **12%** |
| Utilities | 28 | <1% | - | - | 28 | <1 |
| Street ROW, Private Roads, etc. | 1,503 | 16% | - | - | 1,503 | 12% |
| **Total** | **9,526** | **100%** | **3,513** | **100%** | **13,038** | **100%** |

*Source: City of Diamond Bar, 2016; Los Angeles County Assessor's Office, 2016.*

## Population and Housing

### *Past and Current Trends*

Between the 1990 U.S. Census and the 2016 California Department of Finance population projection, the City gained approximately 3,400 residents. This represents an annual growth rate of only 0.2 percent a year over a 26-year period. Since 1990, the City's overall population growth has not kept pace with the region or County's growth due to the fact that the City is largely built out and there have been limited opportunities for housing development.

### *Projections*

The Southern California Association of Governments (SCAG) has projected that the City will grow at a slower pace than experienced prior to its incorporation in 1989. As part of the General Plan update process, the City estimated its 2016 population based on the number of existing housing units in the Planning Area, assuming 3.16 persons per occupied unit in Diamond Bar and a vacancy rate of 3 percent (from the California Department of Finance E-5 Report), resulting in a population of 57,853. The 2040 population projection assumes a standard residential vacancy rate of 5 percent and 3.097 population per occupied unit based on the 2016 population per occupied unit of 3.16 with the two percent reduction projected through 2040 from Southern California Associated Governments (SCAG). Between 2016 and 2040, the City projects Diamond Bar's population will grow from 57,853 to 66,685 residents, translating to a 0.6-percent annual growth rate over the next 20 years.

Given the land use changes and policies proposed in this Plan as well as regional employment projections, the City projects strong overall job growth in Diamond Bar over the next 20 years, with projected employment increasing by nearly 48 percent from 14,700 jobs in 2016 to 21,700 jobs in 2040. Table 3.9-2 shows projected employment growth totals and by land use.

**Table 3.9-2: Projected Employment Growth by Non-Residential Land Use Category, 2016-2040**

| *Non-Residential Land Use Category* | *2016 Estimated Total Jobs* | *Percent of Total* | *2040 Projected Total Jobs* | *Percent of Total* | *Estimated Change in Jobs, 2016-2040* |
|---|---|---|---|---|---|
| Retail | 1,500 | 10% | 3,100 | 14% | 1,600 |
| Office | 7,300 | 50% | 11,400 | 53% | 4,100 |
| Industrial | 2,100 | 14% | 1,700 | 8% | (400) |
| Other Commercial[2] | 3,800 | 26% | 5,500 | 25% | 1,700 |
| Total | 14,700 | 100% | 21,700 | 100% | 7,000 |

Notes:

1. Totals may not add due to rounding.
2. Other commercial uses include accommodation and food services and other miscellaneous services (excluding public administration).

*Source: Dyett and Bhatia, 2019.*

### *Jobs-Housing Balance*

Jobs-housing balance refers to the condition in which a single community offers an equal supply of jobs and housing, which theoretically would reduce the need for people to commute in or out of town for work. In reality, the match of education, skills and interests is not always accommodated within the boundaries of one community. Still, matching the the workforce needs to availability of housing types/prices can potentially reduce commute travel. A jobs to housing ratio of 1.0 would indicate parity between jobs and housing, although because of regional inter-dependencies, inter-city commuting will still result.

In 2016, the Planning Area had a jobs to housing ratio of about 0.78 (based on 14,702 jobs and 18,913 housing units in 2016), indicating that a number of residents commute outside of Diamond Bar for work. This reflects Diamond Bar's largely residential nature. Under full buildout of the Proposed Project, the jobs to housing ratio in the Planning Area would increase to 0.96 (based on 21,744 jobs and 11,667 housing units). The ratio rises predominantly due to the anticipated/projected influx of employment centers in mixed use neighborhoods and the proposed Town Center. SCAG projects a jobs to housing ratio of 0.90, based on 19,262 jobs and 21,341 housing units in 2040, which is slightly lower than under the Proposed Project.

# REGULATORY SETTING

## Federal Regulations

There are no relevant federal laws, policies, plans, or programs that apply to the Proposed Project in relation to this issue area.

## State Regulations

### *California Relocation Law, Public Resources Code Section 7260 et seq.*

The California Relocation Law requires the fair and equitable treatment of persons displaced as a direct result of programs or projects undertaken by a public entity. The law requires agencies to prepare a relocation plan, provide relocation payments, and identify substitute housing opportunities for any resident that is to be displaced by a public project.

### *California Government Code Section 65300*

Government Code Sections 65300 states that each planning agency shall prepare and the legislative body of each county and city shall adopt a comprehensive, long-term general plan for the physical development of the county or city, and of any land outside its boundaries which in the planning agency's judgment bears relation to its planning.

### *California Government Code Sections 65919 to 65919.11*

Government Code Sections 65919 to 65919.11 summarize procedures related to interagency referrals for different types of lead agency actions, including general plan updates. Among other referrals, this part of the Government Code provides a procedure and protocols for requesting counties keep cities informed regarding land use actions within the unincorporated portions of spheres of influences and planning areas.

### *Department of Housing and Community Development*

The State Department of Housing and Community Development (HCD) is responsible for determining the regional housing need for all jurisdictions in California and ensuring the availability of affordable housing for all income groups.

### *Sustainable Communities and Climate Protection Act of 2008 (Chapter 728, Statutes of 2008)*

The Sustainable Communities and Climate Protection Act of 2008, otherwise known as Senate Bill (SB) 375, requires the integration of land use, housing, and transportation planning to achieve regional greenhouse gas (GHG) emission reductions, adopted by the California Air Resources Board. SB 375 requires Metropolitan Planning Organizations (MPOs) to develop a Sustainable Communities Strategy (SCS)—a new element of the regional transportation plan (RTP)—to plan for achieving these GHG reduction targets. The SCS must demonstrate the attainment of the regional GHG emissions reduction targets while accommodating the full projected population of the region.

## Local Regulations

### *SCAG Regional Housing Needs Assessment*

The Regional Housing Needs Assessment (RHNA) is a key tool for local governments to plan for anticipated growth. The RHNA quantifies the anticipated need for housing within each jurisdiction for the 5th Housing Element cycle extending from January 2014 to October 2021. Communities then determine how they will address this need through the process of updating the Housing Elements of their General Plans. The RHNA was adopted by the Southern California Association of Governments (SCAG) in October 2012. The total housing growth need for the City of Diamond Bar during the 2014-2021 planning period is 1,146 units.

### *Los Angeles County General Plan*

Provisions of the Los Angeles County General Plan apply to unincorporated areas of Los Angeles County, including the SOI adjacent to Diamond Bar city limits analyzed in the Proposed Project and EIR. The Los Angeles County General Plan Land Use Element outlines the County's Special Management Areas, or areas requiring additional development regulations to prevent the loss of life and property, and to protect the natural environment and important resources. Scenic Resources in the unincorporated areas of the County are regulated by Hillside Management Area (HMA) policies as well as the corresponding HMA Ordinance, which is discussed below.

In addition to HMAs, the General Plan protects ridgelines, scenic viewsheds, and areas along scenic highways. Scenic resources are addressed in greater detail in the Conservation and Natural Resources Element, which seeks to guide the long-term conservation of natural resources and preservation of available open space areas. Specific Scenic Resources policies include protecting ridgelines from incompatible development, encouraging development with a visual relationship to surrounding terrain and vegetation, and prohibiting outdoor advertising and billboards along scenic routes, corridors and other scenic areas.

### *Los Angeles County Code of Ordinances*

The Los Angeles County Code of Ordinances addresses development regulations that pertain to Special Management Areas, including Hillside Management Areas and Significant Ecological Areas. The Los Angeles County Code of Ordinances applies to all unincorporated land within the Planning Area.

#### Hillside Management Ordinance

The HMA Ordinance, which was adopted by the Los Angeles County Board of Supervisors on October 6, 2015, allows clustering development at the base of the slope, limits grading, and ensures that the drainage configuration remains as natural as possible and will not adversely impact offsite property. The County defines HMAs as mountainous or foothill terrain with a natural slope of 25 percent or greater. A significant portion of Diamond Bar's Sphere of Influence is an HMA, as are hillsides within the City, as discussed in Chapter 3.1: Aesthetics.

Hillside Design Guidelines

Hillside Design Guidelines apply to all development in HMAs in Los Angeles County, unless exempted under the Ordinance's provisions. In hillside areas with less than 25% slope, use of the Guidelines is optional but encouraged.

The Guidelines include specific and measurable design techniques that can be applied to residential, commercial, industrial, and other types of projects. The Guidelines seek to minimize hillside alteration, conserve ridgeline silhouettes, determine traffic circulation and building placement by topography, and incorporate trails where appropriate.

Significant Ecological Areas Ordinance Update

The Significant Ecological Areas (SEA) Program Update, approved by the Los Angeles County Board of Supervisors on May 28, 2019, includes the update to the County's SEA Ordinance and the designation of Conceptual SEAs to official SEAs. SEAs include land that is identified to hold important biological resources representing the wide-ranging biodiversity of the County, based on the criteria for SEA designation established by the General Plan and as mapped in the SEA Policy Map (Figure 3.1-3). As shown on this map, all of Diamond Bar's Sphere of Influence is considered an SEA. The SEA Ordinance establishes regulations to conserve the unique biological and physical diversity of the natural communities within Significant Ecological Areas (SEA) by requiring development to be designed to avoid and minimize impacts on SEA Resources. The regulation of development in SEAs also seeks to preserve scenic resources.

### *City of Diamond Bar Zoning Ordinance*

The City regulates the type, location, density, and scale of residential development through Title 22 of the Diamond Bar Municipal Code ("Development Code") and Zoning Map. Zoning regulations serve to implement the General Plan and are designed to protect and promote the health, safety, and general welfare of residents. The Development Code also helps to preserve the character and integrity of existing neighborhoods. The Development Code and Zoning Map set forth residential development standards for each zoning district.

### *City of Diamond Bar Citywide Design Guidelines*

The City of Diamond Bar Design Guidelines, adopted in 1998, are intended to provide design professionals, property owners, residents, staff, and decision makers with a clear and common understanding of the City's expectations for the planning, design, and review of development proposals. The Design Guidelines were created following adoption of the 1995 General Plan as a further measure to assist in the creation of a built environment of a quality and superiority in design beyond what can be achieved by simply meeting the minimum development standards of the Development Code.

### *City of Diamond Bar General Plan 2013-2021 Housing Element*

Article 10.6 of the California Government Code outlines the State's Housing Element requirements. A housing element must analyze existing and projected housing needs, examine special housing

needs within the population, evaluate the effectiveness of current goals and policies, identify governmental and other constraints, determine compliance with other housing laws, and identify opportunities to incorporate energy conservation into the housing stock. The element must also establish goals, policies and programs to maintain, enhance, and develop housing.

Diamond Bar's current Housing Element is an eight-year plan for the period 2013-2021. Chapter V of the Housing Element, the Housing Action Plan, identifies strategies and programs that focus on: 1) conserving and improving existing affordable housing; 2) providing adequate housing sites; 3) assisting in the development of affordable housing; 4) removing governmental and other constraints to the housing development; and 5) promoting equal housing opportunities.

## Specific Plans

The City uses specific plans to coordinate development and infrastructure improvements on large sites or series of parcels. Specific plans must be consistent with the General Plan and are typically used to establish development plans and standards to achieve the design and development objectives for a particular area. Existing and planned development under the following specific plans is included in buildout projections of the Proposed Project.

### *Diamond Bar Village Specific Plan*

The Diamond Bar Village Specific Plan was adopted in May 2004. The 70.5-acre site covered by the Specific Plan is located southeastern corner of Golden Springs Drive and Grand Avenue intersection. The Specific Plan allowed the development of up to 200 high-density residential units, as well as up to 270,100 square feet of new commercial, retail, and institutional uses with a maximum FAR of 1.0. The Specific Plan stipulated new development on the site should meet the following goals: include a mix of uses, achieve citywide development goals described in the General Plan, feature landscaping and architectural elements cohesive with the identity of the community, and enhance the character and style of the region.

### *South Pointe West Specific Plan*

The South Pointe West Specific Plan and tentative tract map were adopted in 2007, approving a mix of residential, park, and open space land uses on a 34.5-acre property west of Brea Canyon Road and South of Larkstone Drive. The plan allowed for a 99-unit detached residential condominium subdivision as well as Larkstone Park, a 6.8-acre neighborhood park off Larkstone Drive.

### *Site D Specific Plan*

The Site D Specific Plan, adopted in 2012, pertains to an approximately 30-acre site in the southwestern portion of the City, located on the southeast corner of Brea Canyon Road and Diamond Bar Boulevard. Prior to development, the empty site was jointly owned by the Walnut Valley Unified School District and the City of Diamond Bar (97% and 3% respectively). The Specific Plan guides development of "Willow Heights," a master planned subdivision combining residential, open space, and recreational land uses. The Willow Heights gated community, which was completed in 2016 by Lennar Corporation, consists of 47 single family homes, 73 detached condominium units, and 62 multifamily condominium units within three distinct communities—

182 residential units in total. As required under the Specific Plan and subsequent tract map, Lennar also constructed a 4.3-acre public park at the intersection of Brea Canyon Road and Diamond Bar Boulevard.

# Impact Analysis

## SIGNIFICANCE CRITERIA

For the purposes of this EIR, a significant adverse impact would occur if implementation of the Proposed Project would:

**Criterion 1:** **Physically divide an established community;**

**Criterion 2:** **Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect;**

**Criterion 3:** **Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere.**

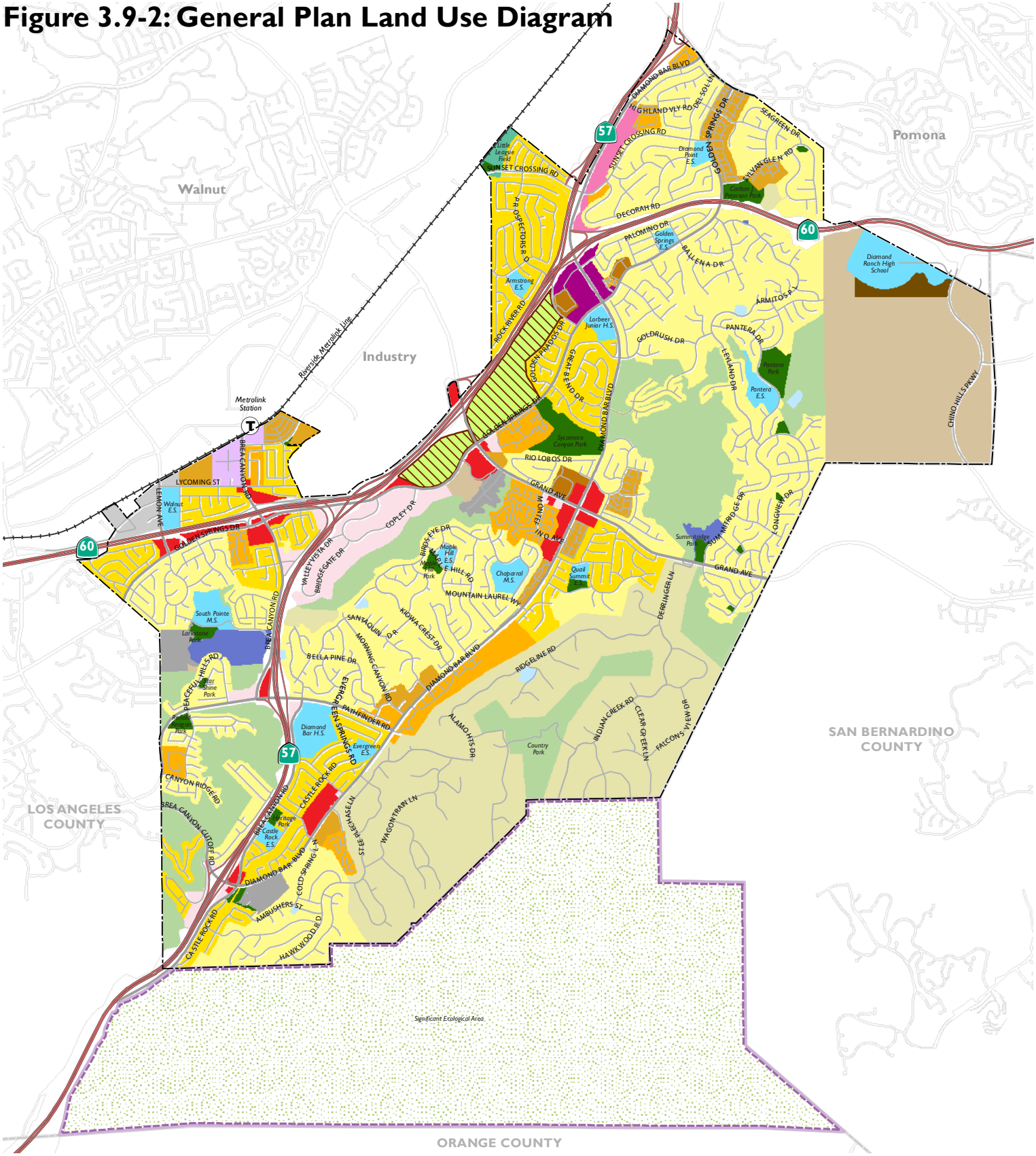
## METHODOLOGY AND ASSUMPTIONS

This EIR analysis considers current and proposed General Plan policies and goals, existing and proposed land use conditions within Diamond Bar, and applicable regulations and guidelines.

The proposed General Plan has a year 2040 horizon; however, the proposed General Plan does not speculate when buildout will occur, as long-range demographic and economic trends are difficult to predict. The designation within the proposed General Plan of a site for certain use, as seen in Figure 3.9-2, does not necessarily mean that the site will be developed or redeveloped with that use during the planning period, as most development will depend on property owner initiative. For the purposes of this EIR, the environmental analysis assumes that sites will be developed or redeveloped with the designated land use at buildout of the Proposed Project.

With much of the City currently "built out," or developed, and the preservation of open space a priority, undeveloped land available for development is limited in Diamond Bar. The General Plan provides for four focus areas, depicted in Figure 3.9-3, where major land use changes are planned to take place as part of a strategy to provide walkable mixed-use activity centers. These focus areas provide opportunities for infill development that can incorporate a range of housing, employment, and recreational uses to meet the needs of families, young people, senior citizens, and residents of all incomes. These focus areas were designed in response to community priorities including a desire for expanded access to entertainment and community gathering places, and the need to accommodate the City's growing and diverse population. New Land Use designations are proposed for each of these focus areas to facilitate their development.

# Figure 3.9-2: General Plan Land Use Diagram



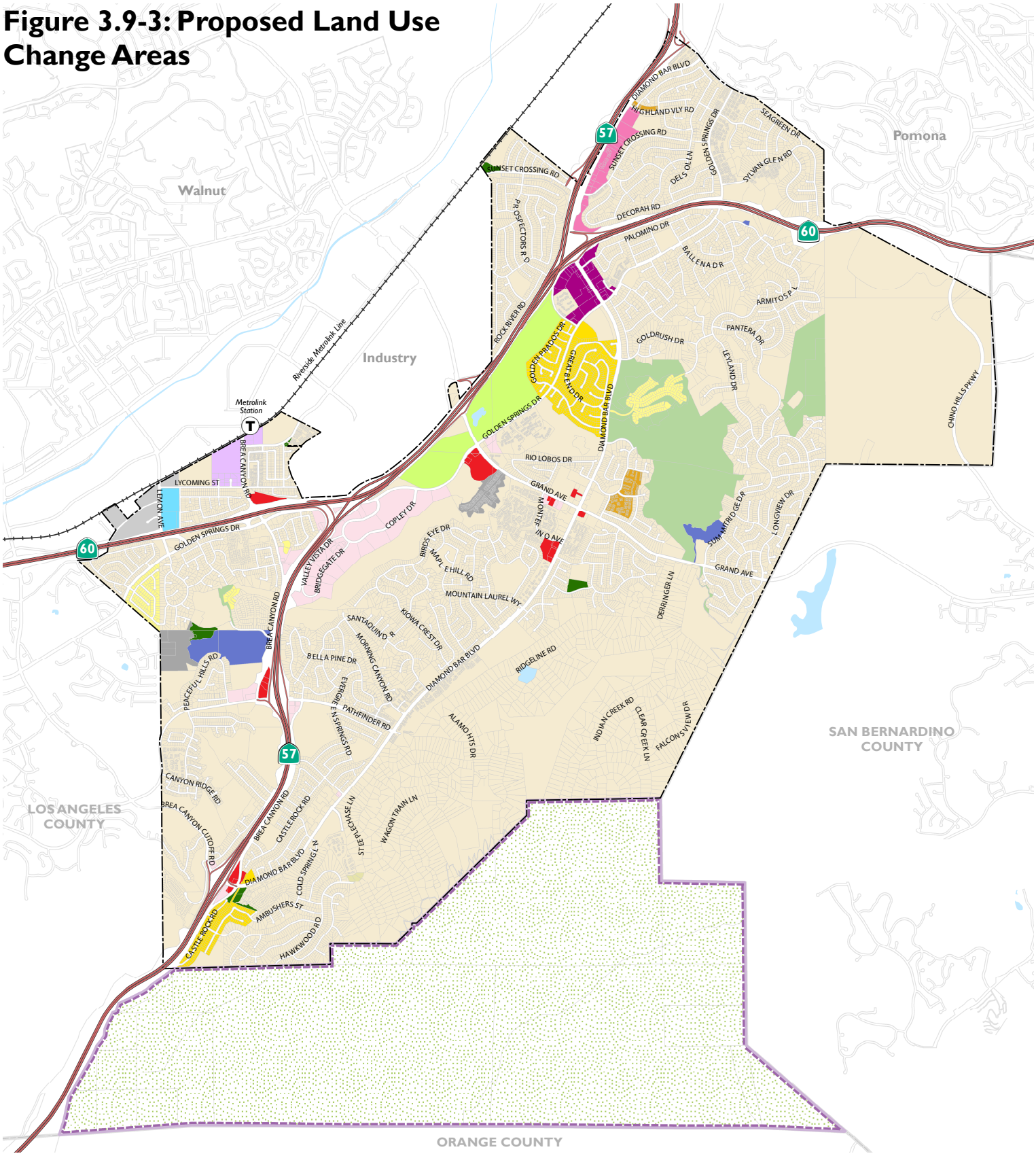

**Land Use Designations**

- Rural Residential
- Low Density Residential
- Low-Medium Residential
- Medium Density Residential
- Medium High Density Residential
- High Density Residential
- High Density Residential-30
- Neighborhood Mixed Use
- Town Center Mixed Use
- Transit Oriented Mixed Use
- Light Industrial
- General Commercial
- Office
- Water
- School
- Public Facility
- Park
- Golf Course
- Open Space
- Significant Ecological Area
- Private Recreation
- Planning Area
- Specific Plan
- Community Core Overlay
- City of Diamond Bar
- Sphere of Influence
- County Boundary

0 0.25 0.5 1 MILES

*Source: City of Diamond Bar 2019; Dyett & Bhatia, 2019*

# Figure 3.9-3: Proposed Land Use Change Areas




**Land Use Designations**

- Rural Residential
- Low Density Residential
- Low-Medium Residential
- Medium High Density Residential
- Neighborhood Mixed Use
- Town Center Mixed Use
- Transit Oriented Mixed Use
- Light Industrial
- General Commercial
- Office
- Water
- School
- Public Facility
- Park
- Golf Course
- Open Space
- Significant Ecological Area
- Specific Plan
- Water Features
- City of Diamond Bar
- Sphere of Influence
- County Boundary

0 0.25 0.5 1 MILES

*Source: City of Diamond Bar 2019; Dyett & Bhatia, 2019*

## IMPACTS

### Impact 3.9-1 Implementation of the Proposed Project would not physically divide an established community. (*Less than Significant*)

The Proposed Project would not physically divide any established community. Rather, by improving connectivity and land use consistency within and between existing neighborhoods, the proposed General Plan provides more linkages within the City and the region. The Transit-Oriented Mixed Use focus area, for instance, leverages underutilized commercial and light industrial sites adjacent to the Metrolink station to provide for higher-density housing, offices, and supporting commercial uses close to regional transit. Development of this focus area would contribute to housing availability in the City and would be a key location to emphasize multi-modal transportation options tied to land use. The Town Center focus area, which under existing conditions is a mix of commercial, retail, and office uses, would serve as a center for activity for Diamond Bar residents and allow residential density of up to 20.0 dwelling units per acre. Changes to land use designations under the Proposed Project, shown in Figure 3.9-3 and Table 3.9-3, would consolidate designations to reflect existing land uses and would not result in the division of any established community. Furthermore, proposed improvements to the bicycle, trail, and road networks will make it easier for citizens to travel throughout community. Therefore, the potential impact is less than significant.

**Table 3.9-3: Land Use Designation Changes**

| *Location* | *1995 Designation* | *Proposed Designation* | *Description of Change* |
|---|---|---|---|
| Brea Canyon Road and Lycoming Street (Change Area 1) | Light Industrial | Transit Oriented Mixed Use | Allow a mix of high-density residential, commercial, office, and industrial uses |
| Walnut Elementary School (Change Area 1) | Light Industrial | School | Designate as School to accurately reflect existing uses |
| Diamond Bar Boulevard between Golden Springs Drive SR 60 (Change Area 2) | General Commercial | Town Center Mixed Use | Allow a mix of commercial, office, and residential use |
| North Diamond Bar Boulevard between Highland Valley and SR-60 Offramps (Change Area 3) | Commercial/Office | Neighborhood Mixed Use | Allow a range of housing types and commercial uses, including residential uses |
| Golf Course (Change Area 4) | Golf Course | Golf Course, Community Core Overlay | Allow continued operation of the present golf course use. Should golf course cease operation, require master plan to ensure cohesive implementation of its reuse |

**Table 3.9-3: Land Use Designation Changes**

| *Location* | *1995 Designation* | *Proposed Designation* | *Description of Change* |
|---|---|---|---|
| Planning Area 2 | Planning Area 2/Specific Plan | Open Space | Designate as Open Space to preserve natural resources and provide recreational opportunities |
| Vantage residential development (Planning Area 3) | Planning Area 3/Specific Plan | Specific Plan | Designate large-scale development area in which residential, commercial, recreational, public facility, and other land uses may be permitted where a specific plan is proposed. Parts of Planning Area 3 have been developed under the Diamond Bar Village Specific Plan |
| Target (Planning Area 3) | Planning Area 3/Specific Plan | General Commercial | Designate as General Commercial to accurately reflect existing uses |
| Golden Springs Drive and Copley Drive (Planning Area 3) | Planning Area 3/Specific Plan | Office | Allow for office-based working environments and supporting commercial, retail, and service uses |
| Planning Area 4 at Brea Canyon Road | Planning Area 4/Specific Plan | Public Facility | Designate for publicly-owned facilities and institutions serving the needs of the general community |
| South Pointe residential community (Planning Area 4) | Planning Area 4/Specific Plan | Specific Plan | Parts of Planning Area 4 have been developed under the South Pointe West Specific Plan as the South Pointe residential community and Larkstone Park. |
| Brea Canyon Road to Larkstone Park (Planning Area 4) | Planning Area 4/Specific Plan | Public Facility | Designate for publicly-owned facilities and institutions serving the needs of the general community |
| Larkstone Park | Planning Area 4/Specific Plan | Park | Designate as Park to accurately reflect existing uses |
| Diamond Canyon Park | Specific Plan | Park | Designate as Park to accurately reflect existing uses |
| Summitridge Park – North | Park | Public Facility | Designate for publicly-owned facilities and institutions serving the needs of the general community |

**Table 3.9-3: Land Use Designation Changes**

| *Location* | *1995 Designation* | *Proposed Designation* | *Description of Change* |
|---|---|---|---|
| Quail Summit Elementary School – South | School | Park | Designate as Park to accurately reflect existing and future uses |
| Golden Prados Drive and Golden Springs Drive | Low Density Residential | Low-Medium Residential | Designate as Low-Medium Residential to accurately reflect existing densities in this area |
| South Brea Canyon Road at Castle Rock | Low Density Residential | Low-Medium Residential | Designate as Low-Medium Residential to accurately reflect existing densities in this area |
| Golden Springs Drive and South Lemon Avenue – West | Low-Medium Residential | Low Density Residential | Designate as Low Density Residential to accurately reflect existing densities in this area |
| Bain Avenue – Southeast | Low-Medium Residential | Low Density Residential | Designate as Low Density Residential to accurately reflect existing densities in this area |
| Brea Canyon Road at Eastbound SR-60 Offramp | Professional Office | General Commercial | Allow for regional, freeway-oriented, and community retail and service commercial uses |
| Brea Canyon Road and Pathfinder Road – East | Professional Office | General Commercial | Allow for regional, freeway-oriented, and community retail and service commercial uses |
| Grand Avenue and Diamond Bar Boulevard – Southeast | Professional Office | General Commercial | Allow for regional, freeway-oriented, and community retail and service commercial uses |
| Montefino Avenue and Diamond Bar Boulevard | Commercial/Office | General Commercial | Allow for regional, freeway-oriented, and community retail and service commercial uses |
| Fire Department Station 21 on Grand Avenue | Fire | Public Facility | Consolidate public facility designations |
| Grand Avenue East of Fire Department | General Commercial | Office | Allow for office-based working environments and supporting commercial, retail, and service uses |
| Grand Avenue West of Fire Department | Professional Office | Office | Allow for office-based working environments and supporting commercial, retail, and service uses |
| Brea Canyon Cutoff Road and Diamond Bar Boulevard – West | Professional Office | Office | Allow for office-based working environments and supporting commercial, retail, and service uses |

**Table 3.9-3: Land Use Designation Changes**

| *Location* | *1995 Designation* | *Proposed Designation* | *Description of Change* |
|---|---|---|---|
| Golden Springs Drive and Grand Avenue – Northeast | Commercial/Office | Office | Allow for office-based working environments and supporting commercial, retail, and service uses |
| Golden Springs Drive and Grand Avenue – Southeast | Professional Office | Office | Allow for office-based working environments and supporting commercial, retail, and service uses |
| Golden Springs Drive and Copley Drive | Professional Office | Office | Allow for office-based working environments and supporting commercial, retail, and service uses |
| Route 57 and Route 60 – Southwest | Commercial/Office | Office | Allow for office-based working environments and supporting commercial, retail, and service uses |
| Brea Canyon Road and Via Sorella | Commercial/Office | Office | Allow for office-based working environments and supporting commercial, retail, and service uses |
| Brea Canyon Road and Pathfinder Road – West | Professional Office | Office | Allow for office-based working environments and supporting commercial, retail, and service uses |
| Route 57 and Pathfinder Road – East | Commercial/Office | Office | Allow for office-based working environments and supporting commercial, retail, and service uses |

*Proposed General Plan Policies that Address the Impact*

Land Use & Economic Development

LU-G-2. Encourage compact growth and prioritize infill development to preserve existing large blocks of natural open space within the City and Sphere of Influence including Tonner Canyon and Tres Hermanos Ranch; and enhance community character, optimize city infrastructure investments, provide pedestrian- and bicycle-friendly neighborhoods, and enhance economic vitality.

LU-G-4. Locate new residential growth in or adjacent to mixed-use centers and transit stations to support regional and statewide efforts to encourage sustainable land use planning and smart growth principles.

LU-G-6. Preserve existing residential neighborhoods to retain the qualities Diamond Bar residents love, such as easy access to preserved natural open spaces, while

supporting and encouraging well-designed, complete neighborhoods with safe streets, access to shopping and services, and community parks and gathering places.

LU-G-12. Encourage compact mixed-use developments and projects that are walkable, designed to encourage community interaction, and fulfill a diversity of local commercial, employment, housing, and recreational needs.

LU-G-13. Maximize multi-modal accessibility to and connectivity within mixed-use areas.

LU-G-14. Foster development of nodes or clusters of mixed-use centers to promote city and neighborhood identity, improve accessibility to stores, parks, natural open spaces, and services, and promote walkable, pedestrian-scaled retail and dining destinations.

LU-G-15. Promote the development of a vibrant corridor with a mix of uses, including residential uses and neighborhood-serving services and amenities, including such as parks and open spaces that fulfill a diversity of local needs within walking and biking distance of neighborhood residents.

LU-G-16. Create a well-designed, walkable, mixed-use neighborhood that encourages community interaction and healthy lifestyles while reducing reliance on automobiles.

LU-G-19. Leverage the proximity of the City of Industry Metrolink station and Foothill Transit facility to create an engaging, compact, mixed-use neighborhood that encourages multi-modal transportation and responds to a diversity of housing needs.

LU-P-7. As larger vacant or underutilized sites within the built environment are developed or redeveloped, maximize multimodal accessibility by requiring appropriately designed street networks, and walkable block sizes scaled to proposed uses.

LU-P-39. Provide streetscape and intersection improvements along the major corridors of South Diamond Bar Boulevard and Golden Springs Drive to enhance connectivity, comfort, and safety for all modes of travel, and increase accessibility to and from surrounding areas.

LU-P-40. Study the implementation of safe pedestrian connectivity between the north and south sections of the Town Center Mixed-Use project site and at Lorbeer Middle School.

*Potential strategies for achieving safe pedestrian connectivity may include traffic calming measures along the roadways, crosswalk visibility improvements, ensuring adequate time for walk signals, refuge islands, bulb-outs, bridges, and others.*

Community Character & Placemaking

CC-G-1. Foster and maintain a distinctive city identity that values the community's "country living" character by preserving the City's open spaces, physical features, and environmental resources, and focusing new development into accessible,

pedestrian-oriented areas integrated with existing neighborhoods, augmented with parks, and connected by an attractive and safe street network.

CC-G-5. Preserve the scale and character of existing residential neighborhoods and ensure sensitive transitions between densities and uses.

CC-P-7. Ensure that new development provides an integrated pattern of roadways, bicycle routes and paths, and pedestrian connections within and between neighborhoods that are safe, comfortable, and accessible sidewalks for people of all ages and abilities.

Circulation

CR-P-3. Plan for and provide new connections within the Transit-Oriented, Neighborhood, Town Center, and Community Core mixed-use areas to create finer grained, pedestrian-scaled circulation networks that support the development of connected and accessible neighborhoods. Connections should facilitate the use of alternatives to single-occupancy vehicles, such as walking, bicycling, and transit by improving the safety and accessibility of those modes.

CR-P-30. Use Figure 4-2: Proposed Bicycle Network as the overall guide for undertaking bikeway and pedestrian improvements in the community, with the Parks and Recreation Master Plan providing a more detailed implementation strategy.

CR-P-31. Update the Parks and Recreation Master Plan using community input and best practices to identify bicycle infrastructure needs such as gaps in the network, prioritize facilities and improvements, and identify funding for proposed facilities. Review and update the plan as necessary.

CR-P-32. Provide pedestrian and bicycle connectivity in existing residential neighborhoods, utility easements, and/or flood control channels, including connections through cul-de-sacs to other streets or community facilities where feasible.

CR-P-33. Ensure that new development integrates with Diamond Bar's bicycle and pedestrian networks by requiring developers to provide sidewalks and bicycle infrastructure on local streets.

CR-P-38. Study the feasibility of implementing a bike share program to connect neighborhoods and major destinations, such as the Transit-Oriented, Neighborhood, Town Center, and Community Core Overlay mixed-use areas; local schools and colleges; parks; and commercial centers.

*Mitigation Measures*

None required.

### Impact 3.5-2 Implementation of the Proposed 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. (*Less than Significant*)

Since a General Plan updates policies and land use designations for future development and would replace the 1995 General Plan, it may naturally be inconsistent with existing planning regulations outside of the proposed General Plan, such as density/intensity standards, zoning, and allowed uses, that were designed to implement the 1995 General Plan and subsequent amendments. These existing regulations would be updated to be consistent with and/or effectively implement the Proposed Project, if it were adopted. Additionally, the City's Zoning Ordinance would be revised to implement the Proposed Project, as required by State Law (Government Code Section 65860[a]), and it would translate the proposed General Plan policies into specific use regulations, development standards, and performance criteria to govern development on individual properties. The Zoning Ordinance would ultimately prescribe standards, rules, and procedures for development and the Zoning Map will provide more detail than the proposed General Plan Land Use Diagram. The proposed General Plan includes multiple policies from the 1995 General Plan and proposes more stringent policies for the purpose of avoiding or mitigating an environmental effect. However, these policies would not result in conflict with 1995 General Plan policies or existing planning regulations designed to implement the 1995 General Plan and subsequent amendments.

In addition to its General Plan, the City of Diamond Bar has adopted specific plans for some areas within the City to tailor appropriate development standards and policies to individual neighborhoods, as described in the Regulatory Setting above. By State law, specific plans must be consistent with the General Plan. As of 2019, development under the Specific Plans is mostly complete. As discussed under Impact 3.9-1 and shown in Table 3.9-3 and Figures 3.9-2 and 3.9-3, the proposed General Plan includes changes to land use designations within the boundaries of various specific plans to ensure that land use designations throughout the City will be harmonious and consistent with existing land uses. For example, Planning Area 3 has been developed under the Diamond Bar Village Specific Plan with a Target store, housing units, and the Vantage Drive neighborhood. The proposed General Plan changes the land use designation of these parcels within Planning Area 3 in order to be consistent with their existing uses. The South Pointe West Specific Plan allows for a residential condominium subdivision and Larkstone Park in Planning Area 4, which are currently under construction. The proposed General Plan designates Larkstone Park as "Park" and the subdivision as "Planning Area" to allow the policies of the South Pointe West Specific Plan to be carried out throughout completion of construction. Redesignation of "Planning Areas" under the proposed General Plan is designed to increase consistency with existing uses following completion of development under these specific plans, and would not result in any conflicts. Proposed General Plan policies would not conflict with policies included in these specific plans adopted for the purpose of avoiding or mitigating an environmental effect.

The Planning Department has primary responsibility for administering the laws, regulations, and requirements that pertain to the physical development of the City. Specific duties relating to implementation of the proposed General Plan would include preparing zoning and subdivision ordinance amendments, reviewing development applications, conducting investigations and

making reports and recommendations on planning and land use, zoning, subdivisions, development plans, and environmental regulations.

The Proposed Project also must be consistent with regional and local plans. The proposed General Plan seeks to maintain consistency with the policies of the Los Angeles County General Plan and Los Angeles County Code of Ordinance, particularly regarding the Significant Ecological Area Ordinance. The proposed General Plan designates the entirety of the SOI as a Significant Ecological Area, which is consistent with the designation of this area under the SEA Ordinance and the Los Angeles County General Plan. Compliance with the Hillside Management Ordinance is further discussed in Chapter 3.1: Aesthetics. Policies within the proposed General Plan would integrate land use, housing, and transportation planning to achieve regional greenhouse gas (GHG) emission reductions, therefore supporting the Sustainable Communities Strategy. The City of Diamond Bar Housing Element would be reviewed for consistency and amended as necessary to maintain an internally consistent General Plan. Policies within the proposed General Plan would be consistent with the Citywide Design Guidelines.

Given that (1) the proposed General Plan does not conflict with any other agencies' applicable land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect, and (2) the preparation of amendments to other City policies and regulations where required to be consistent with the proposed General Plan, conflicts with existing local and regional plans and the Zoning Ordinance are expected to have a less than significant impact.

*Proposed General Plan Policies that Address the Impact*

<u>Land Use & Economic Development</u>

LU-G-25. Support continued operation of the Diamond Bar Golf Course by Los Angeles County as a public amenity.

LU-G-26. Should Los Angeles County choose to cease operations of the Diamond Bar Golf Course or reduce the area of the Golf Course, promote development of the portion of the Golf Course north of Grand Avenue predominantly as a public park/consolidated golf course with additional community or civic uses, and the portion south of Grand Avenue as a walkable mixed-use community and regional destination offering retail, dining, and entertainment uses; plazas and community gathering spaces; supporting residential uses; and civic and other supporting uses.

LU-P-33. Amend parking regulations in Title 22: Development Code of the Municipal Code to require lower parking minimums for developments with a mix of uses with different peak parking needs, as well as developments that implement enforceable residential parking demand reduction measures, such as parking permit and car share programs.

LU-P-52. Collaborate with public service providers and agencies including, but not limited to, the Los Angeles County Department of Parks and Recreation, Walnut Valley and Pomona school districts, Los Angeles County Sheriff's Department, Los Angeles County Fire Department, and Walnut Valley Water District to designate

and pursue acquisition of land for public facilities as necessary to serve unmet facility needs of Diamond Bar residents.

LU-P-55. Preserve publicly-owned, undeveloped hillsides, as well as privately-owned hillsides with an Open Space General Plan designation, as natural open space in perpetuity. On privately-owned property which has a residential land use designation, preserve hillsides as natural open space through Diamond Bar's Hillside Management Ordinance by allowing residential development only at the permitted densities and where development would not detract from the protection and overall perception of the hillsides as natural topographic and ecological features, or negatively impact public safety or welfare.

LU-P-56. Ensure that development on privately-owned, residentially designated land in hillside areas is compatible with surrounding natural areas by requiring that development:

a. Minimizes—as articulated by the landform grading criteria of the Hillside Management Ordinance—excavation, grading, and earthwork to retain natural vegetation and topography;
b. Preserves existing vistas of significant hillside features such as ridgelines, particularly from public places;
c. Does not create unsafe conditions;
d. Incorporates and is sensitive to natural contours and land forms in its site design, including hydrological features;
e. Preserves natural watersheds, including existing vegetation within undeveloped hillside areas to the maximum extent feasible, including mature trees and native plant materials;
f. Permits fuel modification as part of the Fire District's approved fuel modification program;
g. Utilizes planting palettes consisting of drought tolerant, fire resistant, plants with colors similar to those of native materials in the surrounding area; and
h. Groups plants within swale areas to more closely reflect natural conditions within landform graded slopes.

*Mitigation Measures*

None required.

### Impact 3.9-3 Implementation of the Proposed Project would not displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere. (*Less than Significant*)

The majority of developed land in the Planning Area is comprised of residential uses, which are not anticipated to undergo significant land use changes under the Proposed Project. The Proposed Project focuses infill development opportunities in vacant and underutilized areas in Diamond Bar, while seeking to preserve existing neighborhoods. Throughout the Planning Area, the Proposed Project is projected to increase the overall number of dwelling units and provide housing to serve the diverse needs of the community at various socioeconomic levels. Proposed General Plan policies require the City to provide opportunities for and incentivize the development of housing types that are affordable to all segments of the Diamond Bar community, including senior housing and independent assisted living facilities, residential care facilities, and rental and for-sale housing units affordable to low- and moderate-income households. For sites larger than two acres in size, new development is required to construct a range of housing types that meet the needs of a diversity of income levels. The Proposed Project would also support the development of additional jobs, while featuring policies to both retain and foster existing businesses and attract new ones. Therefore, this impact is less than significant.

*Proposed General Plan Policies that Address the Impact*

Goals LU-G-4, LU-G-6, LU-G-19, and CC-G-5 as discussed under Impact 3.9-1, in addition to the following:

<u>Land Use & Economic Development</u>

LU-G-7. Promote a variety of housing and neighborhood types that respond to a range of income, household sizes, and accessibility levels.

LU-G-20. Ensure the adequate provision of spaces for recreation, community gathering, amenities, programming, and services that can adapt to fulfill the demographic needs of residents consistent with the Diamond Bar parkland standard (5 acres per 1,000 residents) and the Parks and Recreation Master Plan.

LU-G-21. Ensure that new development is sensitive to the scale, density, and massing of adjacent residential uses and potential sources of noise and air pollution.

LU-P-10. Provide opportunities for and incentivize the development of housing types that are affordable to all segments of the Diamond Bar community, including senior housing and independent assisted living facilities, residential care facilities, and rental and for-sale housing units affordable to low- and moderate-income households.

LU-P-18. Require development to be sensitive to the building form, density, massing, and scale of surrounding residential neighborhoods.

LU-P-23. For sites larger than two acres in size, require the construction of a range of housing types that meet the needs of a diversity of income levels and household sizes.

Community Health & Sustainability

CHS-P-11. Evaluate and make changes to the project review and permitting process to encourage and facilitate incorporation of universal lifecycle design principles (design that promotes the ability to remain in one's house as one ages) in new residential development, allowing community members to stay in their homes and neighborhoods longer.

CHS-P-19. Encourage the use of schools as community and neighborhood centers to provide a range of services and programs, such as evening courses related to healthy living, job-training and retraining programs, and other services for the community at large.

*Mitigation Measures*

None required.

# 3.10 Noise

This section assesses potential environmental impacts related to noise from future development under the Proposed Project, including those impacts associated with noise standards compliance, groundborne vibration, ambient noise levels, railway noise and airport noise. The section describes the characteristics, measurement, and physiological effects of noise; characteristics of groundborne vibration; and existing sources of noise and vibration in the Planning Area, as well as relevant federal, State, and local regulations and programs.

There were several comments on the Notice of Preparation (NOP) regarding topics covered in this section, as follows:

- Caltrans stated that if residential development is considered near a freeway or highway, sound walls or equivalent measures should be implemented; and that the new General Plan should create community noise level standards, reduce construction noise impacts on existing businesses and residents, and avoid sensitive receptors.
- A member of the public stated that the adjacent City of Industry and its unmitigable development projects exempted from an EIR, exposes the City of Diamond Bar to the greater noise from the freeway on-ramps/off-ramps and the industrial centers, ongoing earth-moving and future construction at the Industry project sites, which expose disadvantaged communities with lower income housing and schools to noise. The additional car trips that will be generated by high-density housing and commercial in TOD raise concerns about increasing exposure to noise. Evidence needs to be collected and studies conducted on existing levels and future impacts of TOD development on noise on major and minor roadways.

  In response, under CEQA, the Proposed Project is not required to mitigate for actions or projects in other jurisdictions. Any mitigation, plans or policies identified in this EIR and associated CAP are recommended to directly reduce impacts from the City's anticipated development. While there may be co-benefits that will reduce impacts from growth in neighboring cities, the extent of those benefits is not discussed in this EIR. Table 3.10-13 compares existing and future noise levels on major and minor roadways.

- Hills for Everyone asked how will the new GP create community noise level standards in the general plan, reduce noise impacts to existing businesses/residents from construction, and avoid sensitive receptors. This DEIR addresses construction noise impacts to sensitive receptors under Noise Impact 3.10-1, construction, based on the City's noise standards and municipal code.

# Environmental Setting

## PHYSICAL SETTING

### Noise

*Noise Characteristics and Measurement*

Because of the technical nature of noise and vibration impacts, a brief overview of basic noise principals and descriptors is provided below.

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). Noise is generally defined as unwanted sound (i.e., loud, unexpected, or annoying sound). Acoustics is defined as the physics of sound. In acoustics, the fundamental scientific model consists of a sound (or noise) source, a receiver, and the propagation path between the two. The loudness of the noise source and obstructions or atmospheric factors affecting the propagation path to the receiver determines the sound level and characteristics of the noise perceived by the receiver. Acoustics addresses primarily the propagation and control of sound.

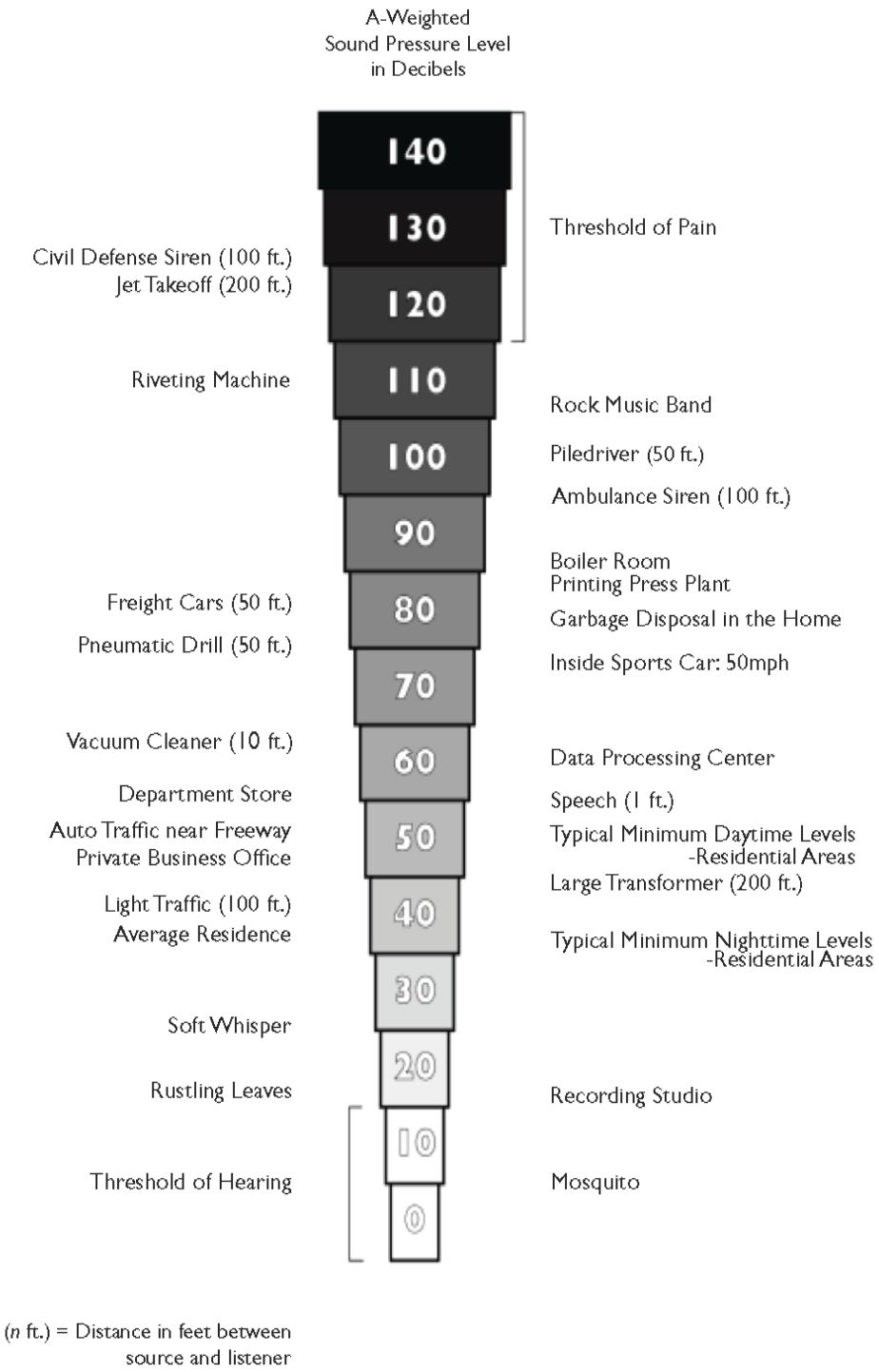
Sound, traveling in the form of waves from a source, exerts a sound pressure level (referred to as sound level) that is measured in decibels (dB), which is the standard unit of sound amplitude measurement. The dB scale is a logarithmic scale that describes the physical intensity of the pressure vibrations that make up any sound, with 0 dB corresponding roughly to the threshold of human hearing and 120 to 140 dB corresponding to the threshold of pain. Pressure waves traveling through air exert a force registered by the human ear as sound.

Sound pressure fluctuations can be measured in units of hertz (Hz), which correspond to the frequency of a particular sound. Typically, sound does not consist of a single frequency, but rather a broad band of frequencies varying in levels of magnitude, with audible frequencies of the sound spectrum ranging from 20 to 20,000 Hz. The typical human ear is not equally sensitive to this frequency range. As a consequence, when assessing potential noise impacts, sound is measured using an electronic filter that deemphasizes the frequencies below 1,000 Hz and above 5,000 Hz in a manner corresponding to the human ear's decreased sensitivity to these extremely low and extremely high frequencies. This method of frequency filtering or weighting is referred to as A-weighting, expressed in units of A-weighted decibels (dBA), which is typically applied to community noise measurements. Some representative common outdoor and indoor noise sources and their corresponding A-weighted noise levels are shown in Figure 3.10-1.

An individual's noise exposure is a measure of noise over a period of time; a noise level is a measure of noise at a given instant in time. However, noise levels rarely persist at that level over a long period of time. Rather, community noise varies continuously over a period of time with respect to the sound sources contributing to the community noise environment. Community noise is primarily the product of many distant noise sources, which together constitute a relatively stable background noise exposure, with many of the individual contributors being unidentifiable. The background

noise level changes throughout a typical day, but does so gradually, corresponding to the addition and subtraction of distant noise sources, such as changes in traffic volume. What makes community noise variable throughout a day, besides the slowly changing background noise, is the addition of short-duration, single-event noise sources (e.g., aircraft flyovers, motor vehicles, sirens), which are readily identifiable to the individual.

**Figure 3.10-1: Decibel Scale and Common Noise Levels**



These successive additions of sound to the community noise environment change the community noise level from instant to instant, requiring the noise exposure to be measured over periods of time to legitimately characterize an existing community noise environment. The following noise descriptors are used to characterize environmental noise levels over time, which are applicable to the Project.

- $L_{eq}$: The equivalent sound level over a specified period of time, typically, one hour ($L_{eq}$). The $L_{eq}$ may also be referred to as the average sound level.
- $L_{max}$: The maximum, instantaneous noise level experienced during a given period of time.
- $L_{min}$: The minimum, instantaneous noise level experienced during a given period of time.
- $L_x$: The noise level exceeded a percentage of a specified time period. For instance, $L_{50}$ and $L_{90}$ represent the noise levels that are exceeded 50 percent and 90 percent of the time, respectively.
- $L_{dn}$: The average A-weighted noise level during a 24-hour day, obtained after an addition of 10 dB to measured noise levels between the hours of 10:00 p.m. to 7:00 a.m. to account for nighttime noise sensitivity. The $L_{dn}$ is also termed the day-night average noise level (DNL).
- CNEL: The Community Noise Equivalent Level (CNEL) is the average A-weighted noise level during a 24-hour day that includes an addition of 5 dB to measured noise levels between the hours of 7:00 a.m. to 10:00 p.m. and an addition of 10 dB to noise levels between the hours of 10:00 p.m. to 7:00 a.m. to account for noise sensitivity in the evening and nighttime, respectively.

### *Physiological Effects of Noise*

Noise is generally loud, unpleasant, unexpected, or undesired sound that is typically associated with human activity that is a nuisance or disruptive. The effects of noise on people can be placed into four general categories:

1. Subjective effects (e.g., dissatisfaction, annoyance)
2. Interference effects (e.g., communication, sleep, and learning interference)
3. Physiological effects (e.g., startle response)
4. Physical effects (e.g., hearing loss)

Although exposure to high noise levels has been demonstrated to cause physical and physiological effects, the principal human responses to typical environmental noise exposure are related to subjective effects and interference with activities. Interference effects interrupt daily activities and include interference with human communication activities, such as normal conversations, watching television, telephone conversations, and interference with sleep. Sleep interference effects can include both awakening and arousal to a lesser state of sleep (Caltrans, 2013a).

With regard to the subjective effects, the responses of individuals to similar noise events are diverse and influenced by many factors, including the type of noise, the perceived importance of the noise, the appropriateness of the noise to the setting, the duration of the noise, the time of day and the type of activity during which the noise occurs, and individual noise sensitivity. Overall, there is no completely satisfactory way to measure the subjective effects of noise, or the corresponding reactions of annoyance and dissatisfaction on people. A wide variation in individual thresholds of annoyance exists, and different tolerances to noise tend to develop based on an individual's past experiences with noise. Thus, an important way of predicting a human reaction to a new noise environment is the way it compares to the existing environment to which one has adapted (i.e., comparison to the ambient noise environment). In general, the more a new noise level exceeds the previously existing ambient noise level, the less acceptable the new noise level will be judged by those hearing it. With regard to increases in A-weighted noise level, the following relationships generally occur (Caltrans, 2013a):

- Except in carefully controlled laboratory experiments, a change of 1 dBA in ambient noise levels cannot be perceived;
- Outside of the laboratory, a 3 dBA change in ambient noise levels is considered to be a barely perceivable difference;
- A change in ambient noise levels of 5 dBA is considered to be a readily perceivable difference; and
- A change in ambient noise levels of 10 dBA is subjectively heard as a doubling of the perceived loudness.

These relationships occur in part because of the logarithmic nature of sound and the decibel scale. The human ear perceives sound in a non-linear fashion; therefore, the dBA scale was developed. Because the dBA scale is based on logarithms, two noise sources do not combine in a simple additive fashion, but rather logarithmically. Under the dBA scale, a doubling of sound energy corresponds to a 3 dBA increase. In other words, when two sources are each producing sound of the same loudness, the resulting sound level at a given distance would be approximately 3 dBA higher than one of the sources under the same conditions. For example, if two identical noise sources produce noise levels of 50 dBA, the combined sound level would be 53 dBA, not 100 dBA. Under the dB scale, three sources of equal loudness together produce a sound level of approximately 5 dBA louder than one source, and ten sources of equal loudness together produce a sound level of approximately 10 dBA louder than the single source (Caltrans, 2013a).

### *Noise Attenuation*

When noise propagates over a distance, the noise level reduces with distance at a rate that depends on the type of noise source and the propagation path. Noise from a localized source (i.e., point source) propagates uniformly outward in a spherical pattern, referred to as "spherical spreading." Stationary point sources of noise, including stationary mobile sources such as idling vehicles, attenuate (i.e., reduce) at a rate between six dBA for acoustically "hard" sites and 7.5 dBA for "soft" sites for each doubling of distance from the reference measurement, as their energy is

continuously spread out over a spherical surface (e.g., for hard surfaces, 80 dBA at 50 feet attenuates to 74 at 100 feet, 68 dBA at 200 feet, etc.). Hard sites are those with a reflective surface between the source and the receiver, such as asphalt or concrete surfaces or smooth bodies of water. No excess ground attenuation is assumed for hard sites and the reduction in noise levels with distance (drop-off rate) is simply the geometric spreading of the noise from the source. Soft sites have an absorptive ground surface, such as soft dirt, grass, or scattered bushes and trees, which in addition to geometric spreading, increase the ground attenuation value by 1.5 dBA (per doubling distance) (Caltrans, 2013a).

Roadways and highways consist of several localized noise sources on a defined path, and hence are treated as "line" sources, which approximate the effect of several point sources. Noise from a line source propagates over a cylindrical surface, often referred to as "cylindrical spreading." Line sources (e.g., traffic noise from vehicles) attenuate at a rate between 3 dBA for hard sites and 4.5 dBA for soft sites for each doubling of distance from the reference measurement (Caltrans, 2013a). Therefore, noise due to a line source attenuates less with distance than that of a point source with increased distance.

Additionally, receptors located downwind from a noise source can be exposed to increased noise levels relative to calm conditions, whereas locations upwind can have lowered noise levels. Atmospheric temperature inversion (i.e., increasing temperature with elevation) can increase sound levels at long distances (e.g., more than 500 feet). Other factors such as air temperature, humidity, and turbulence can also have significant effects on noise levels (Caltrans, 2013a).

### *Noise-Sensitive Receptors*

Many land uses are considered sensitive to noise. Noise-sensitive receptors are land uses associated with indoor and/or outdoor activities that may be subject to stress and/or significant interference from noise, such as residential dwellings, transient lodging, dormitories, hospitals, educational facilities, and libraries. Industrial and commercial land uses are generally not considered sensitive to noise. Special Status species and their habitat may also be considered noise-sensitive. Noise-sensitive receptors within the Planning Area include single- and multi-family residential housing, schools, parks, libraries, hospitals, churches, habitat, and open space.

### *Sources of Noise*

The Planning Area is an urbanized area with pockets of open space. The major sources of noise within the Planning Area include typical urban noise levels, such as vehicle traffic along roadways, industrial and commercial processes, and residential noises, such as people talking, sporting events in parks, and vocalizations from domesticated animals (e.g., dogs).

#### Traffic

Vehicular traffic is the predominant noise source within the city. Freeways within the City include SR-57 and SR-60. Arterial streets within the City include Brea Canyon Road, Chino Hills Parkway, Diamond Bar Boulevard, Golden Springs Drive, Grand Avenue, Lemon Avenue, Pathfinder Road,

and a short segment of Chino Avenue (approximately 375 feet). The level of vehicular traffic noise varies with many factors, including traffic volume, vehicle mix (including percentage of trucks), traffic speed, and distance from the roadway.

Existing traffic CNEL noise levels were calculated for roadway segments based on vehicular turning movement data at intersections identified for traffic impact analysis by the City (Fehr & Peers, 2019). Turning movements at each studied intersection were used to determine traffic volumes along 42 roadway segments within the Proposed Project Planning Area. The roadway segments selected for analysis were those that are expected to be the most directly impacted by Project-related traffic.

Existing traffic CNEL noise levels were calculated using the Federal Highway Administration's (FHWA's) Highway Traffic Noise Model (FHWA-TNM) (Caltrans, 2013a) and traffic volumes at the study intersections reported in Chapter 3.12: Transportation. The model calculates the average noise level at specific locations based on traffic volumes, average speeds, and site environmental conditions. The noise levels along these roadway segments (i.e., 50 feet from the centerline of the roadway segment) are presented in Table 3.10-1, and provide distances to the 60, 65, and 70 dBA CNEL existing noise contours, shown in Figure 3.10-2.

As shown in Table 3.10-1, the ambient noise environment can be characterized by 24-hour CNEL levels attributable to existing traffic on local roadways. The calculated CNEL (at a distance of 40 feet from the roadway centerline to receptor locations) from actual existing traffic volumes on the analyzed roadway segments ranged from 67.7 dBA to 72.8 dBA.

**Table 3.10-1: Existing Traffic Noise Levels (2018)**

| # | *Roadway* | *Segment* | *Distance (ft) from CL to 70 dBA CNEL Contour* | *Distance (ft) from CL to 65 dBA CNEL Contour* | *Distance (ft) from CL to 60 dBA CNEL Contour* | *Noise Level dBA CNEL at 50 ft from CL* |
|---|---|---|---|---|---|---|
| 1 | Brea Canyon Cutoff Rd | SR-57 SB Ramps to SR-57 NB Ramps | <50 | 118 | 481 | 70.3 |
| 2 | Brea Canyon Cutoff Rd | Oak Crest Dr to SR-57 SB Ramps | <50 | 63 | 306 | 68.5 |
| 3 | Brea Canyon Rd | Washington Ave to Lycoming St | <50 | 106 | 443 | 69.9 |
| 4 | Brea Canyon Rd | Lycoming St to SR-60 SB Ramps | <50 | 143 | 561 | 70.9 |
| 5 | Brea Canyon Rd | SR-60 SB Ramps to Golden Springs Dr | <50 | 226 | 823 | 72.4 |
| 6 | Brea Canyon Rd | Golden Springs Dr to Pathfinder Rd | <50 | 192 | 715 | 71.8 |
| 7 | Brea Canyon Rd | Diamond Bar Blvd to Silver Bullet Dr | <50 | 177 | 669 | 71.6 |
| 8 | Chino Hills Pkwy | Diamond Ranch Rd to Chino Ave | <50 | 83 | 370 | 69.2 |
| 9 | Chino Hills Pkwy | south of Chino Ave | <50 | 82 | 368 | 69.2 |
| 10 | Diamond Bar Blvd | Sunset Crossing Rd to SR-60 WB Ramps | <50 | 84 | 372 | 69.3 |
| 11 | Diamond Bar Blvd | SR-60 EB Ramps to Golden Springs Dr | <50 | 131 | 523 | 70.6 |
| 12 | Diamond Bar Blvd | Golden Springs Dr to Goldrush Dr | <50 | 135 | 533 | 70.7 |
| 13 | Diamond Bar Blvd | Goldrush Dr to Grand Ave | <50 | 225 | 820 | 72.4 |
| 14 | Diamond Bar Blvd | Grand Ave to Quail Summit Dr | <50 | 249 | 895 | 72.8 |
| 15 | Diamond Bar Blvd | Quail Summit Dr to Mountain Laurel Way | <50 | 149 | 578 | 71.0 |

**Table 3.10-1: Existing Traffic Noise Levels (2018)**

| # | *Roadway* | *Segment* | *Distance (ft) from CL to 70 dBA CNEL Contour* | *Distance (ft) from CL to 65 dBA CNEL Contour* | *Distance (ft) from CL to 60 dBA CNEL Contour* | *Noise Level dBA CNEL at 50 ft from CL* |
|---|---|---|---|---|---|---|
| 16 | Diamond Bar Blvd | Kiowa Crest Dr to Pathfinder Rd | <50 | 237 | 858 | 72.6 |
| 17 | Diamond Bar Blvd | Pathfinder Rd to Cold Spring Ln | <50 | 175 | 661 | 71.5 |
| 18 | Diamond Bar Blvd | Cold Spring Ln to Diamond Bar Blvd | <50 | 201 | 743 | 72.0 |
| 19 | Diamond Bar Blvd / Mission Blvd | Temple Ave/Ave Rancheros to SR-57 NB Ramps | <50 | 75 | 345 | 69.0 |
| 20 | Fern Hollow Dr / Brea Canyon Rd | Pathfinder Rd to Diamond Bar Blvd | <50 | <50 | 245 | 67.7 |
| 21 | Golden Springs Dr | Racquet Club Dr to Diamond Bar Blvd | <50 | 172 | 653 | 71.5 |
| 22 | Golden Springs Dr | Copley Dr to Grand Avenue | <50 | 213 | 782 | 72.2 |
| 23 | Golden Springs Dr | Brea Canyon Rd to Copley Dr | <50 | 169 | 642 | 71.4 |
| 24 | Golden Springs Dr | SR-60 EB Ramps to Brea Canyon Rd | <50 | 148 | 575 | 71.0 |
| 25 | Golden Springs Dr | Lemon Ave to SR-60 EB Ramps | <50 | 110 | 457 | 70.1 |
| 26 | Golden Springs Dr | west of Lemon Ave | <50 | 180 | 678 | 71.6 |
| 27 | Golden Springs Dr | Grand Avenue to Racquet Club Dr | <50 | 121 | 491 | 70.3 |
| 28 | Grand Ave | Lavender Dr to Diamond Bar Blvd | <50 | 217 | 793 | 72.3 |
| 29 | Grand Ave | Diamond Bar Blvd to Summitridge Dr | <50 | 233 | 845 | 72.5 |
| 30 | Grand Ave | Summitridge Dr to Longview Dr | <50 | 203 | 749 | 72.0 |
| 31 | Grand Ave | SR-57 SB Ramps to SR-57 NB Ramps | <50 | 183 | 686 | 71.7 |
| 32 | Grand Ave | SR-57 NB Ramps to Golden Springs Dr | <50 | 154 | 594 | 71.1 |

**Table 3.10-1: Existing Traffic Noise Levels (2018)**

| # | *Roadway* | *Segment* | *Distance (ft) from CL to 70 dBA CNEL Contour* | *Distance (ft) from CL to 65 dBA CNEL Contour* | *Distance (ft) from CL to 60 dBA CNEL Contour* | *Noise Level dBA CNEL at 50 ft from CL* |
|---|---|---|---|---|---|---|
| 33 | Grand Ave | Golden Springs Drive to Lavender Dr | <50 | 179 | 673 | 71.6 |
| 34 | N. Diamond Bar Blvd | SR-60 WB Ramps to SR-60 EB Ramps | <50 | 188 | 701 | 71.8 |
| 35 | N. Diamond Bar Blvd | SR-57 NB Ramps to Sunset Crossing Rd | <50 | 126 | 506 | 70.5 |
| 36 | Pathfinder Rd | Brea Canyon Rd to SR-57 SB Ramps | <50 | 167 | 638 | 71.4 |
| 37 | Pathfinder Rd | SR-57 SB Ramps to SR-57 NB Ramps | <50 | 125 | 504 | 70.4 |
| 38 | Pathfinder Rd | SR-57 NB Ramps to Fern Hollow Dr /Brea Canyon Rd | <50 | 205 | 757 | 72.1 |
| 39 | Pathfinder Rd | Fern Hollow Dr /Brea Canyon Rd to Diamond Bar Blvd | <50 | 180 | 676 | 71.6 |
| 40 | Pathfinder Rd | west of Pathfinder Rd | <50 | 75 | 345 | 69.0 |
| 41 | S. Diamond Bar Blvd | SR-57 NB Ramps to Brea Canyon Rd | <50 | 224 | 818 | 72.4 |
| 42 | S. Diamond Bar Blvd | Mountain Laurel Way to Kiowa Crest Dr | <50 | 115 | 472 | 70.2 |

Notes:
1. Traffic volumes are per Fehr & Peers data received January 2019.
2. Truck percentage assumed to be 3% for all roadways.

CL = Centerline (of roadway segment)

*Source: Fehr & Peers, 2019; ESA, 2019.*

Railway

The noise impacts associated with train activity depends on the type of train, number of cars, track conditions, the number of trains operating per day, the speed of the engine car, and the proximity of the rail line to surrounding receptors.

The Metrolink Commuter Rail System operates the Riverside line, which passes along the northwestern border of the City. The Riverside line travels in an easterly direction from downtown

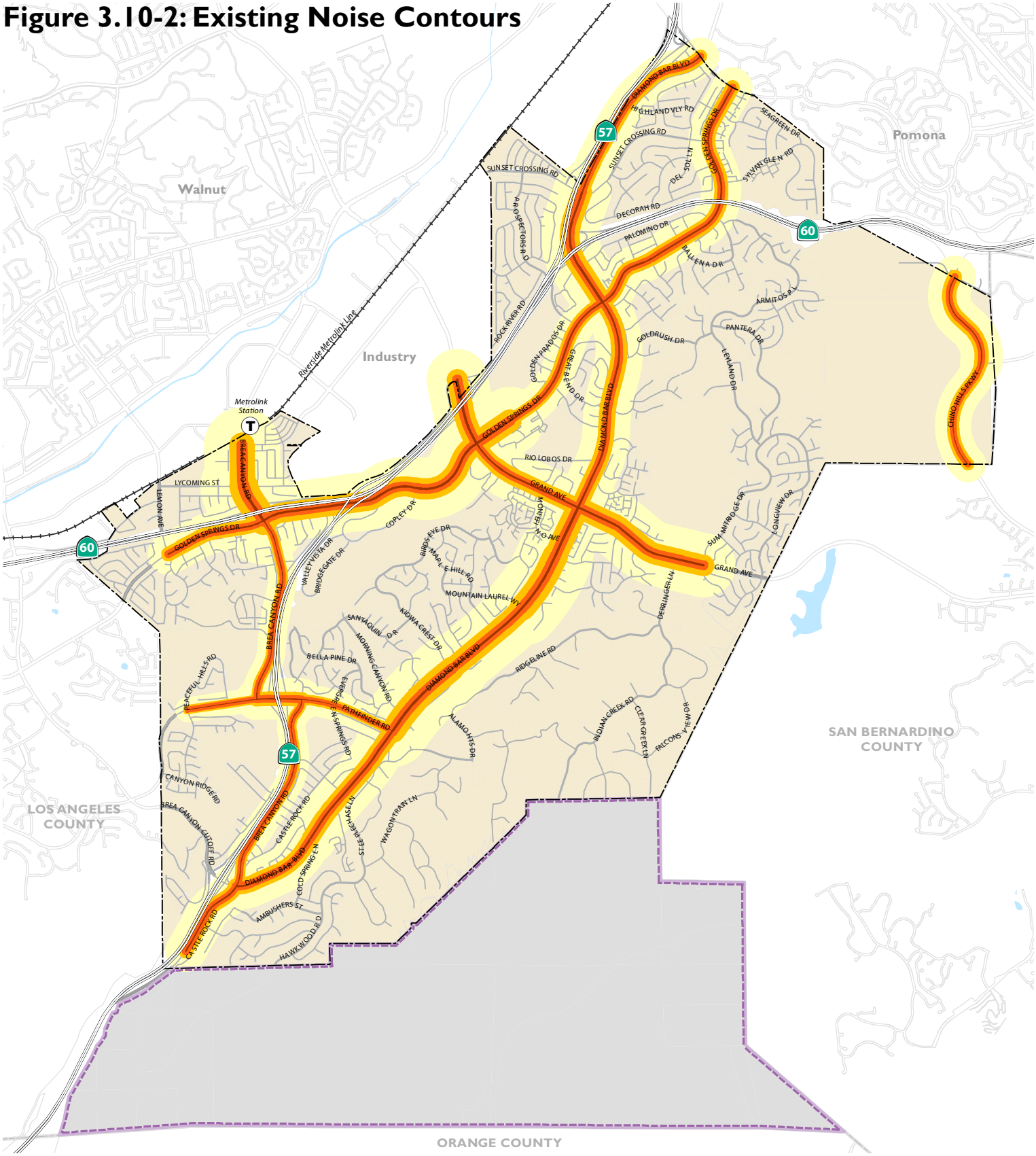
Los Angeles to downtown Riverside and is travelled by commuter trains operated by Metrolink, as well as freight trains operated by the Union Pacific Railroad. The Riverside line passes by both commercial and residential uses located in the City.

Stationary Noise Sources

A stationary noise source is defined as a land use, building, or activity that produces noise at a fixed location. They can be temporary, intermittent, or continuous sources of noise. Stationary noise sources include heating, ventilation, and air conditioning (HVAC), appliances, power tools, generators, non-mobile motors, and other amplified sounds. Exposure to stationary sources can usually be limited by means of setbacks, housings for noise-emitting motors or generators, walls between properties, or dense landscaping.

Temporary stationary noise sources include amplified music form parties or bars, engines idling, and pets barking. Noise from stationary sources are discussed under Section 8.12.720-810 of the City's Municipal Code.

# Figure 3.10-2: Existing Noise Contours




**Existing Noise Levels**

- 75 dB Contour
- 70 dB Contour
- 65 dB Contour
- 60 dB Contour

- Highways
- Ramps
- Major Roads
- Local Roads
- Railroads

- Water Features
- City of Diamond Bar
- Sphere of Influence
- County Boundary

0 0.375 0.75 1.5
MILES

*Source: City of Diamond Bar 2019; ESA PCR, 2016; Dyett & Bhatia, 2019*

Other Noise Sources

Other noise sources may include overhead aircraft, fireworks, and special events. The closest airport to the City is Brackett Field located 6.5 miles away in La Verne. The largest major commercial airport is Ontario International Airport located 12.9 miles away in Ontario. Noise from aircrafts and other infrequent events would produce temporary noise lasting a short period of time.

## Groundborne Vibration

### *Vibration Characteristics and Measurement*

Vibration can be interpreted as energy transmitted in waves through the ground or structures, which generally dissipate with distance from the vibration source. Because energy is lost during the transfer of energy from one particle to another, vibration becomes less perceptible with increasing distance from the source.

As described in the Federal Transit Administration's (FTA) *Transit Noise and Vibration Impact Assessment*, 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 (FTA 2018). In contrast to airborne noise, groundborne vibration is not a common environmental problem, as it is unusual for vibration from sources such as buses and trucks to be perceptible, even in locations close to major roads. Some common sources of groundborne vibration are trains, heavy trucks traveling on rough roads, and construction activities, such as blasting, pile-driving, and operation of heavy earth-moving equipment (Caltrans, 2013b).

There are several different methods that are used to quantify vibration. The peak particle velocity (PPV) is defined as the maximum instantaneous peak of the vibration signal in inches per second (in/sec), and is most frequently used to describe vibration impacts on buildings. The root mean square (RMS) amplitude is defined as the average of the squared amplitude of the signal and is most frequently used to describe the effect of vibration on the human body. Decibel notation (VdB) is commonly used to measure RMS. The relationship of PPV to RMS velocity is expressed in terms of the "crest factor," defined as the ratio of the PPV amplitude to the RMS amplitude. PPV is typically a factor of 1.7 to 6 times greater than RMS vibration velocity. The decibel notation VdB acts to compress the range of numbers required to describe vibration. Typically, groundborne vibration generated by man-made activities attenuates rapidly with distance from the source of the vibration. Sensitive receptors for vibration include buildings where vibration would interfere with operations within the building or cause damage (especially older masonry structures), locations where people sleep, and locations with vibration sensitive equipment (FTA, 2018).

### *Effects of Vibration*

The effects of groundborne vibration include movement of the building floors, rattling of windows, shaking of items on shelves or hanging on walls, and rumbling sounds. In extreme cases, the vibration can cause damage to buildings. Building damage is not a factor for most projects, with the occasional exception of blasting and pile-driving during construction. Annoyance from vibration often occurs when the vibration levels exceed the threshold of perception by only a small margin. A vibration level that causes annoyance will be well below the damage threshold for normal buildings.

### *Sources of Vibration*

Typical sources of groundborne vibration are construction activities (e.g., blasting, pile driving, and operating heavy-duty earthmoving equipment), steel-wheeled trains, and occasional traffic on rough roads. Problems with groundborne vibration and noise from these sources are usually localized to within about 100 feet of the vibration source, although there are examples of groundborne vibration causing interference out to distances greater than 200 feet.[1] When roadways are smooth, vibration from traffic, even heavy trucks, is rarely perceptible.

## REGULATORY SETTING

### Federal Regulations

#### *Environmental Protection Agency*

Under the authority of the Noise Control Act of 1972, the United States Environmental Protection Agency (U.S. EPA) established noise emission criteria and testing methods published in Parts 201 through 205 of Title 40 of the Code of Federal Regulations (CFR) that apply to some transportation equipment (e.g., interstate rail carriers, medium trucks, and heavy trucks) and construction equipment. In 1974, USEPA issued guidance levels for the protection of public health and welfare in residential land use areas of an outdoor $L_{dn}$ of 55 dBA and an indoor $L_{dn}$ of 45 dBA (U.S. EPA, 1974). These guidance levels are not considered as standards or regulations and were developed without consideration of technical or economic feasibility.

[1] Federal Transit Authority, 2006

### *Occupational Safety and Health Administration*

Under the Occupational Safety and Health Act of 1970 (29 United States Code [U.S.C.] Section 1919 et seq.), the Occupational Safety and Health Administration (OSHA) has adopted regulations designed to protect workers against the effects of occupational noise exposure. These regulations list permissible noise level exposure as a function of the amount of time during which the worker is exposed. The regulations further specify a hearing conservation program that involves monitoring the noise to which workers are exposed, ensuring that workers are made aware of overexposure to noise, and periodically testing the workers' hearing to detect any degradation.

### *Department of Housing and Urban Development*

The U.S. Department of Housing and Urban Development's environmental criteria and standards are presented in 24 Code of Federal Regulations (CFR) Part 51. New construction proposed in high noise areas (exceeding 65 dBA DNL) must incorporate noise attenuation features to maintain acceptable interior noise levels. A goal of 45 dBA DNL is set forth for interior noise levels and attenuation requirements are geared toward achieving that goal. It is assumed that with standard construction, any building will provide sufficient attenuation to achieve an interior level of 45 dBA DNL or less if the exterior level is 65 dBA DNL or less. Approvals in a "normally unacceptable noise zone" (exceeding 65 dB, but not exceeding 75 dB) require a minimum of 5dB of additional noise attenuation for buildings having noise sensitive uses if the DNL is greater than 65 dB, but does not exceed 70 dB, or a minimum of 10 dB of additional noise attenuation, if the day-night average is greater than 70 dB, but does not exceed 75 dB.

### *Federal Highway Administration*

An assessment of noise and consideration of noise abatement per Title 23 of the CFR, Part 772, "Procedures for Abatement of Highway Traffic Noise and Construction Noise," is required for proposed federal or federal-aid highway construction projects on a new location, or the physical alteration of an existing highway that significantly changes either the horizontal or vertical alignment, or increases the number of through-traffic lanes. The FHWA considers noise abatement for sensitive receivers, such as picnic areas, recreation areas, playgrounds, active sport areas, parks, residences, motels, hotels, schools, places of worship, libraries, and hospitals when "worst-hour" noise levels approach or exceed 67 dBA Leq. The California Department of Transportation (Caltrans) has further defined "approach" as meaning to be within 1 dB of the Noise Abatement Criteria (NAC).

### *Federal Transit Administration*

This analysis uses the FTA's vibration impact criteria for sensitive buildings, residences, and institutional land uses near railroads. The thresholds for residences and buildings where people normally sleep are 72 vibration decibels (VdB) for frequent events (more than 70 events of the same source per day), 75 VdB for occasional events (30 to 70 vibration events of the same source per day), and 80 VdB for infrequent events (less than 30 vibration events of the same source per day).

As the threshold of perception is usually taken to be approximately 65 VdB, vibration from train pass-bys may be felt even if the requirements are met.

*Federal Aviation Administration*

The Federal Aviation Administration (FAA) enforces Title 14 of the CFR, Part 150, which describes the procedures, standards and methodology governing the development, submission, and review of airport noise exposure maps and airport noise compatibility programs. Title 14 also identifies the land uses that are normally compatible with various levels of exposure to noise by individuals. FAA has determined that sound levels up to 45 dBA CNEL are acceptable within residential buildings.

*Federal Railroad Noise Emissions Compliance Regulation*

FTA's Office of Safety is responsible for enforcing the Railroad Noise Emissions Compliance Regulation that sets maximum sound levels from railroad equipment and for regulating locomotive horns.

*Federal Vibration Guidelines*

FTA has adopted vibration criteria that are used to evaluate potential structural damage to buildings by building category from construction activities. The vibration damage criteria adopted by FTA are shown in Table 3.10-2**.**

**Table 3.10-2 Construction Vibration Damage Criteria**

| *Building Category* | *PPV (in/sec)* |
|---|---|
| I. Reinforced-concrete, steel, or timber (no plaster) | 0.5 |
| II. Engineered concrete and masonry (no plaster) | 0.3 |
| III. Non-engineered timber and masonry buildings | 0.2 |
| IV. Buildings extremely susceptible to vibration damage | 0.12 |

*Source: FTA, 2018.*

FTA has also adopted vibration criteria associated with the potential for human annoyance from groundborne vibration for the following three land-use categories: Category 1 – High Sensitivity, Category 2 – Residential, and Category 3 – Institutional. FTA defines Category 1 as buildings where vibration would interfere with operations within the building, including vibration-sensitive research and manufacturing facilities, historic buildings, hospitals with vibration-sensitive equipment, and university research operations. Vibration-sensitive equipment includes, but is not limited to, electron microscopes, high-resolution lithographic equipment, and normal optical microscopes. Category 2 refers to all residential land uses and any buildings where people sleep, such as hotels and hospitals. Category 3 refers to institutional land uses such as schools, churches, other institutions, and quiet offices that do not have vibration-sensitive equipment but still have the potential for activity interference. FTA uses a screening distance of 100 feet for highly vibration-sensitive buildings (e.g., historic buildings, hospitals with vibration sensitive equipment, Category

1) and 50 feet for residential uses (Category 2) and institutional land uses with primarily daytime use (Category 3) (FTA, 2018). The vibration criteria associated with human annoyance for these three land-use categories are shown in Table 3.10-3. No vibration criteria have been adopted or recommended by FTA for commercial and office uses.

**Table 3.10-3 Indoor Groundborne Vibration Impact Criteria for General Assessment**

| *Land Use Category* | *Frequent Events*[a] | *Occasional Events*[b] | *Infrequent Events*[c] |
|---|---|---|---|
| **Category 1:** Buildings where vibration would interfere with interior operations. | 65 VdB[d] | 65 VdB[d] | 65 VdB[d] |
| **Category 2:** Residences and buildings where people normally sleep. | 72 VdB | 75 VdB | 80 VdB |
| **Category 3:** Institutional land uses with primarily daytime use. | 75 VdB | 78 VdB | 83 VdB |

[a] "Frequent Events" is defined as more than 70 vibration events of the same source per day.

[b] "Occasional Events" is defined as between 30 and 70 vibration events of the same source per day.

[c] "Infrequent Events" is defined as fewer than 30 vibration events of the same kind per day.

[d] This criterion is based on levels that are acceptable for most moderately sensitive equipment such as optical microscopes.

*Source: FTA, 2018.*

## State Regulations

### *State of California Noise Standards*

The State of California does not have statewide standards for environmental noise, but the Governor's Office of Planning and Research (OPR) has established general plan guidelines for evaluating the compatibility of various land uses as a function of community noise exposure. The purpose of these guidelines is to maintain acceptable noise levels in a community setting for different land use types. Noise compatibility by different land uses types is categorized into four general levels: "normally acceptable," "conditionally acceptable," "normally unacceptable," and "clearly unacceptable." For instance, a noise environment ranging from 50 dBA CNEL to 65 dBA CNEL is considered to be "normally acceptable" for multi-family residential uses, while a noise environment of 75 dBA CNEL or above for multi-family residential uses is considered to be "clearly unacceptable."

In addition, California Government Code Section 65302 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(f) specifically requiring a noise element to be included in the general plan. The noise element must: (1) identify and appraise noise problems in the community and analyze and quantify current and projected noise levels; (2) show noise contours for noise sources stated in CNEL; (3) use noise contours as a guide for establishing a pattern of land uses; and (4) implement measures and possible solutions that address existing and foreseeable noise problems.

The State of California has also established noise insulation standards for new multi-family residential units, hotels, and motels that would be subject to relatively high levels of transportation-related noise. These requirements are collectively known as the California Noise Insulation Standards (Title 24, California Code of Regulations). The noise insulation standards set forth an interior standard of 45 dBA CNEL in any habitable room. They require an acoustical analysis demonstrating how dwelling units have been designed to meet this interior standard where such units are proposed in areas subject to noise levels greater than 60 dBA CNEL. Title 24 standards are enforced by local jurisdictions through the building permit application process.

## Local Regulations

### *City of Diamond Bar Municipal Code, Noise Ordinance*

The City has ordinances and enforcement practices that apply to intrusive noise and that guide new construction. These are summarized in the following sections.

The City's comprehensive noise control ordinance (Chapter 8.12, Division 3, Noise Control) establishes sound measurement and criteria, minimum ambient noise levels for different land use zoning classifications, sound emission levels for specific uses (radios, television, vehicle repairs and amplified equipment, etc.), hours of operation for certain uses (construction activity, rubbish collection, etc.), standards for determining noise deemed a disturbance of the peace, and legal remedies for violations. The ambient noise standards of the City's noise control ordinance are consistent with current state and federal noise standards, and correlated with land use zoning classifications in order to guide the measurement of intrusive noise that results in intermittent (periodic) or extended impacts on a geographically specific site. The intent of the City's standards is to maintain identified ambient noise levels and to limit, mitigate, or eliminate intrusive noise that exceeds the ambient noise levels within the zones specified. The City's standards guide building construction and equipment installation, equipment maintenance and nuisance noise enforcement.

Sec. 8.12.380 of the City's noise ordinance states that the following activities are exempt from restrictions:

- The emission of sound for the purpose of alerting persons to the existence of an emergency, or the emission of sound in the performance of emergency work.
- Warning devices necessary for the protection of public safety, for example, police, fire and ambulance sirens, and train horns.
- Activities conducted on public playgrounds and public or private school grounds, including, but not limited to, school athletic and school entertainment events.
- Construction, stationary nonemergency signaling devices, emergency signaling devices, refuse collection vehicles, residential air conditioning or refrigeration equipment, and forced-air blowers.
- Activities in connection to production of motion pictures.

- All locomotives and rail cars operated by any railroad which is regulated by the state public utilities commission.
- Any activity, to the extent regulation thereof has been preempted by state or federal law.
- All transportation, flood control, and utility company maintenance and construction operations at any time on public right-of-way, and those situations which may occur on private real property deemed necessary to serve the best interest of the public and to protect the public's health and well-being, including, but not limited to, street sweeping, debris and limb removal, removal of downed wires, restoring electrical service, repairing traffic signals, unplugging sewers, snow removal, house moving, vacuuming catch basins, removal of damaged poles and vehicles, repair of water hydrants and mains, gas lines, oil lines, sewers, etc.
- Except as provided in section 8.12.830, all legal vehicles of transportation operating in a legal manner in accordance with local, state and federal vehicle-noise regulations within the public right-of-way or air space, or on private property.
- Seismic surveys which are authorized by the state land commission.
- All mechanical devices, apparatus or equivalent associated with agricultural operations conducted on agricultural property, unless if in the vicinity of residential land uses, in which case a variance permit is required to operate noise-producing devices.
- Noise sources associated with the minor maintenance of residential real property, provided the activities take place between the hours of 7:00 a.m. and 8:00 p.m. Monday through Saturday, or between the hours of 9:00 a.m. and 8:00 p.m. on Sunday.

Sec. 8.12.530 establishes exterior noise standards, as shown in Table 3.10-4.

**Table 3.10-4 City of Diamond Bar Exterior Noise Standards**

| *Noise Zone* | *Designated Noise Zone Land Use (Receptor Property)* | *Time Interval* | *Exterior Noise Level Standard (dB)* |
|---|---|---|---|
| I | noise-sensitive area | Anytime | 45 |
| II | residential properties | 10:00 p.m. to 7:00 a.m. (nighttime) | 45 |
| | | 7:00 a.m. to 10:00 p.m. (daytime) | 50 |
| III | commercial properties | 10:00 p.m. to 7:00 a.m. (nighttime) | 55 |
| | | 7:00 a.m. to 10:00 p.m. (daytime) | 60 |
| IV | industrial properties | Anytime | 70 |

*Source: City of Diamond Bar Municipal Code, Section 8.12.530.*

Section 8.12.540 establishes interior noise standards, as shown in Table 3.10-5.

**Table 3.10-5 City of Diamond Bar Interior Noise Standards**

| *Noise Zone* | *Designated Land Use* | *Time Interval* | *Allowable Interior Noise Level (dB)* |
|---|---|---|---|
| All | Multifamily | 10:00 p.m. to 7:00 a.m. | 40 |
| | Residential | 7:00 a.m. to 10:00 p.m. | 45 |

*Source: City of Diamond Bar Municipal Code, Section 8.12.540.*

Section 8.12.720 sets forth construction noise standards:

> "Operating or causing the operation of any tools or equipment used in construction, drilling, repair, alteration or demolition work between weekday hours of 7:00 p.m. and 7:00 a.m., or at any time on Sundays or holidays, such that the sound therefrom creates a noise disturbance across a residential or commercial real-property line, except for emergency work of public service utilities or by variance issued by the health officer is prohibited. The contractor shall conduct construction activities in such a manner that the maximum noise levels at the affected buildings will not exceed those listed in Table 3.10-6 and Table 3.10-7.

**Table 3.10-6 City of Diamond Bar Maximum Noise Levels for Mobile Construction Equipment**

| | *Single-Family Residential* | *Multi-Family Residential* | *Semi-residential/ Commercial* |
|---|---|---|---|
| Daily, except Sundays and legal holidays, 7:00 a.m. to 8:00 p.m. | 75 dBA | 80 dBA | 85 dBA |
| Daily, except Sundays and legal holidays, 8:00 p.m. to 7:00 a.m. | 60 dBA | 64 dBA | 70 dBA |

*Source: City of Diamond Bar Municipal Code, Section 8.12.720.*

**Table 3.10-7 City of Diamond Bar Maximum Noise Levels for Stationary Construction Equipment**

| | *Single-Family Residential* | *Multi-Family Residential* | *Semi-residential/ Commercial* |
|---|---|---|---|
| Daily, except Sundays and legal holidays, 7:00 a.m. to 8:00 p.m. | 60 dBA | 65 dBA | 70 dBA |
| Daily, except Sundays and legal holidays, 8:00 p.m. to 7:00 a.m. | 50 dBA | 55 dBA | 60 dBA |

*Source: City of Diamond Bar Municipal Code, Section 8.12.720.*

Section 8.12.840 prohibits the operation of any device that creates vibration that is above the vibration perception threshold of 0.01 in/sec PPV over the range of 1 to 100 Hz at or beyond the property boundary of the source, if on private property, or at 150 feet (46 meters) from the source, if on a public space or public right-of-way.

### *County of Los Angeles General Plan, Noise Element*

The Noise Element of the Los Angeles County General Plan (County of Los Angeles, 2015) includes noise goals and policies that are based on the community noise compatibility guidelines applicable to land uses generally (rather than short-term construction noise) established by the California DHS, as previously discussed under State regulations. Specific regulations that implement these guidelines are set forth in the Los Angeles County Municipal Code, as discussed below.

### *County of Los Angeles Municipal Code, Noise Ordinance*

The County of Los Angeles Municipal Code, Noise Ordinance establishes noise standards to control unnecessary, excessive, and annoying noise and vibration in the County.

Sec. 12.08.390 states the exterior noise standards, as shown in Table 3.10-8.

**Table 3.10-8 County of Los Angeles Exterior Noise Standards**

| *Noise Zone* | *Designated Noise Zone Land Use (Receptor Property)* | *Time Interval* | *Exterior Noise Level Standard (dB)* |
|---|---|---|---|
| I | noise-sensitive area | Anytime | 45 |
| II | residential properties | 10:00 p.m. to 7:00 a.m. (nighttime) | 45 |
| | | 7:00 a.m. to 10:00 p.m. (daytime) | 50 |
| III | commercial properties | 10:00 p.m. to 7:00 a.m. (nighttime) | 55 |
| | | 7:00 a.m. to 10:00 p.m. (daytime) | 60 |
| IV | industrial properties | Anytime | 70 |

*Source: County of Los Angeles Municipal Code, Section 12.08.390.*

Section 12.08.400 states interior noise standards, as shown in Table 3.10-9.

**Table 3.10-9 County of Los Angeles Interior Noise Standards**

| *Noise Zone* | *Designated Land Use* | *Time Interval* | *Allowable Interior Noise Level (dB)* |
|---|---|---|---|
| All | Multifamily | 10:00 p.m. to 7:00 a.m. | 40 |
| | Residential | 7:00 a.m. to 10:00 p.m. | 45 |

*Source: County of Los Angeles Municipal Code, Section 12.08.400.*

Section 12.08.440 states construction noise standards:

> "Operating or causing the operation of any tools or equipment used in construction, drilling, repair, alteration or demolition work between weekday hours of 7:00 p.m. and 7:00 a.m., or at any time on Sundays or holidays, such that the sound therefrom creates a noise disturbance across a residential or commercial real-property line, except for emergency work of public service utilities or by variance issued by the health officer is prohibited. The contractor shall conduct construction activities in such a manner that the maximum noise levels at the affected buildings will not exceed those listed in Table 3.10-10 and Table 3.10-11.

**Table 3.10-10 County of Los Angeles Maximum Noise Levels for Mobile Construction Equipment**

| | *Single-Family Residential* | *Multi-Family Residential* | *Semi-residential/ Commercial* |
|---|---|---|---|
| Daily, except Sundays and legal holidays, 7:00 a.m. to 8:00 p.m. | 75 dBA | 80 dBA | 85 dBA |
| Daily, except Sundays and legal holidays, 8:00 p.m. to 7:00 a.m. | 60 dBA | 64 dBA | 70 dBA |

*Source: County of Los Angeles Municipal Code, Section 12.08.440.*

**Table 3.10-11 County of Los Angeles Maximum Noise Levels for Stationary Construction Equipment**

| | *Single-Family Residential* | *Multi-Family Residential* | *Semi-residential/ Commercial* |
|---|---|---|---|
| Daily, except Sundays and legal holidays, 7:00 a.m. to 8:00 p.m. | 60 dBA | 65 dBA | 70 dBA |
| Daily, except Sundays and legal holidays, 8:00 p.m. to 7:00 a.m. | 50 dBA | 55 dBA | 60 dBA |

*Source: County of Los Angeles Municipal Code, Section 12.08.440.*

Section 12.08.560 prohibits the operation of any device that creates vibration that is above the vibration perception threshold of 0.01 in/sec PPV over the range of 1 to 100 hertz (Hz) at or beyond the property boundary of the source, if on private property, or at 150 feet (46 meters) from the source, if on a public space or public right-of-way.

# Impact Analysis

## SIGNIFICANCE CRITERIA

For the purposes of this EIR, a significant adverse noise impact would occur if implementation of the Proposed Project would:

**Criterion 1:** **Result in generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies;**

**Criterion 2:** **Result in generation of excessive groundborne vibration or groundborne noise levels;**

**Criterion 3:** **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 could expose people residing or working in the project area to excessive noise levels.**

## METHODOLOGY AND ASSUMPTIONS

### Construction Noise

Construction noise impacts were evaluated using the FHWA Roadway Construction Noise Model (FHWA, 2006) and the associated reference noise levels for each piece of construction equipment that may be used under the proposed General Plan update. Noise impacts were assessed using the reference noise level distance of 50 feet from a sensitive receptor and were evaluated based on maximum noise levels produced by each piece of construction equipment.

Construction vibration impacts were evaluated using FTA methodology from the FTA Transit Noise and Vibration Impact Assessment Manual (FTA, 2018). Setback distances for preventing vibration damage were evaluated using reference vibration levels for specific construction equipment.

### Traffic Noise

Roadway noise impacts were evaluated using the methodology described in the FHWA Traffic Noise Model Technical Manual based on the roadway traffic volume data provided in Chapter 3.12: Transportation. Calculations are provided in Appendix F of this Draft EIR.

### Railway Noise

This analysis evaluates impacts associated with the proposed General Plan update at the program level. Accordingly, specific details on future railway expansions or improvements are unknown at this time, neither are the specific noise sources that might occur in conjunction with development of land uses near the railway under the Proposed Plan. Therefore, railway noise and vibration impacts are discussed on a qualitative basis.

### Stationary Noise

This analysis evaluates impacts associated with the proposed General Plan update at the program level. Accordingly, specific details on future mechanical equipment or HVAC equipment and layout are unknown at this time, neither are the specific noise sources that might occur in conjunction with development of land uses allowable under the Proposed Plan. Therefore, stationary and other noise source impacts are discussed on a qualitative basis.

## IMPACTS

### Impact 3.10-1 Implementation of the Proposed Project would not result in generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies. (*Less than Significant*)

*Construction*

Existing limitations on construction have the potential to reduce noise and vibration generation and were taken into account in the analysis of potential impacts. Future developments, in accordance with the City and County requirements, would be required to limit construction hours for exterior construction and hauling activities to the hours of 7:00 A.M. and 7:00 P.M., Monday through Saturday, and prohibited on Sundays. However, it is anticipated that construction activities could occur outside of these hours provided that future projects obtain the necessary permits. In addition, construction activities would be required to be conducted such that the maximum noise levels at the affected residential and residential/commercial properties will not exceed the maximum noise level limits for mobile and stationary construction equipment at single-family, multi-family, and semi-residential/commercial listed for the City and the County in Tables 3.10-6 and 3.10-7, and Tables 3.10-10 and 3.10-11, respectively.

On-Site Construction Noise

Construction would require the use of heavy equipment during the demolition, grading, excavation, and other construction activities within the Planning Area. During each stage of development for any given construction project, a different mix of equipment would be used. As such, construction activity noise levels would fluctuate depending on the particular type, number, and duration of use of the various pieces of construction equipment.

Individual pieces of construction equipment expected to be used during construction could produce maximum noise levels of 75 dBA to 101 dBA $L_{max}$ at a reference distance of 50 feet from the noise source, as shown in Table 3.10-12. These maximum noise levels would occur when equipment is operating at full power. The estimated usage factor for the equipment is also shown in Table 3.10-8. The usage factors are based on FHWA's Roadway Construction Noise Model (RCNM) User's Guide (FHWA, 2006).

**Table 3.10-12 Construction Equipment Noise Levels**

| *Construction Equipment* | *Estimated Usage Factor, %* | *Noise Level at 50 Feet (dBA, Lmax)* |
|---|---|---|
| Air Compressors | 40% | 78 |
| Bore/Drill Rig | 20% | 79 |
| Cement and Mortar Mixer | 40% | 79 |
| Compactor | 20% | 83 |
| Concrete Saw | 20% | 90 |
| Crane | 16% | 81 |
| Dumpers/Tenders | 40% | 76 |
| Excavator | 40% | 81 |
| Forklift | 10% | 75 |
| Generator Sets | 50% | 81 |
| Jackhammers | 20% | 89 |
| Off-Highway Trucks | 20% | 76 |
| Other Equipment | 50% | 85 |
| Paver | 50% | 77 |
| Paving Equipment | 20% | 90 |
| Roller | 20% | 80 |
| Rough Terrain Forklift | 10% | 75 |
| Rubber Tired Loader | 50% | 79 |
| Surfacing Equipment | 50% | 85 |
| Tractor/Loader/Backhoe | 25% | 80 |
| Vacuum Street Sweeper | 10% | 82 |
| Vibratory Pile Driver | 20% | 101 |

*Source: FHWA, 2006.*

The exact locations of future projects and construction that would be implemented under the proposed General Plan update are not known at this time, though it is assumed that some of the activities would take place in close proximity to sensitive receptors given that the planning area includes a wide range of receptors. The severity of construction-related noise impacts depends on the proximity of construction activities to sensitive receptors, the presence of intervening barriers, the number and types of equipment used, and the duration of the activity. While the details of these factors are not available for future projects under the proposed General Plan update, it is assumed that individual projects would be implemented in compliance with the City and County standards. Future development under the Proposed Plan would be required to comply with the restrictions of the City Municipal Code, as well as the County Municipal Code for activities within the SOI; if a project requests to deviate, the project proponent would need to obtain permission from the City and/or the County, including conditions and standards to minimize noise impacts. Therefore, assuming any future development complies with City and County noise regulations, temporary increases in noise levels from construction would less than significant.

Traffic Noise

The proposed General Plan update would generate traffic that would increase noise levels along existing and future roadways. The FHWA Highway Traffic Noise Model (FHWA-TNM) was used to evaluate future (2040) traffic-related noise conditions in the City and SOI at the study intersections. The model calculates the average noise level at specific locations based on traffic volumes, average speeds, and site environmental conditions. Table 3.10-13 provides the existing and future buildout noise levels at 50 feet from the centerline of these roadway segments and the distances to the 60, 65, and 70 dBA CNEL future roadway noise contours, shown in Figure 3.10-3. As shown in Table 3.10-13, traffic noise along the analyzed roadway segments would not be discernably different when existing noise levels are compared to future roadway noise levels with implementation of the proposed General Plan update. The maximum increase would be 2.3 dBA along Golden Springs Drive between SR-60 eastbound ramps and Brea Canyon Road. A 3 dBA increase in noise levels is considered barely perceivable by the human ear. Therefore, impacts from traffic noise would be less than significant.

**Table 3.10-13: Existing and Future Traffic Noise Levels (2040)**

| | | | *Existing* | *Future with Proposed General Plan* | | | | |
|---|---|---|---|---|---|---|---|---|
| *#* | *Roadway* | *Segment* | *Noise Level (dBA CNEL) at 50 ft from CL* | *Distance (ft) from CL to 60, 65, and 70 dBA CNEL Contours* | | | *Noise Level (dBA CNEL) at 50 ft from CL* | *Increase (dBA CNEL) at 50 ft from CL* |
| | | | | *60* | *65* | *70* | | |
| 1 | Brea Canyon Cutoff Rd | SR-57 SB Ramps to SR-57 NB Ramps | 70.3 | <50 | 153 | 579 | 71.4 | 1.1 |
| 2 | Brea Canyon Cutoff Rd | Oak Crest Dr to SR-57 SB Ramps | 68.5 | <50 | 76 | 336 | 69.3 | 0.8 |
| 3 | Brea Canyon Rd | Washington Ave to Lycoming St | 69.9 | <50 | 134 | 521 | 71.0 | 1.1 |
| 4 | Brea Canyon Rd | Lycoming St to SR-60 SB Ramps | 70.9 | <50 | 182 | 672 | 72.0 | 1.1 |
| 5 | Brea Canyon Rd | SR-60 SB Ramps to Golden Springs Dr | 72.4 | <50 | 245 | 873 | 73.1 | 0.7 |
| 6 | Brea Canyon Rd | Golden Springs Dr to Pathfinder Rd | 71.8 | <50 | 220 | 793 | 72.7 | 0.9 |
| 7 | Brea Canyon Rd | Diamond Bar Blvd to Silver Bullet Dr | 71.6 | <50 | 185 | 684 | 72.1 | 0.5 |
| 8 | Chino Hills Pkwy | Diamond Ranch Rd to Chino Ave | 69.2 | <50 | 104 | 427 | 70.2 | 1.0 |
| 9 | Chino Hills Pkwy | s/o Chino Ave | 69.2 | <50 | 99 | 409 | 70.0 | 0.8 |
| 10 | Diamond Bar Blvd | Sunset Crossing Rd to SR-60 WB Ramps | 69.3 | <50 | 101 | 418 | 70.1 | 0.9 |
| 11 | Diamond Bar Blvd | SR-60 EB Ramps to Golden Springs Dr | 70.6 | <50 | 155 | 588 | 71.5 | 0.9 |
| 12 | Diamond Bar Blvd | Golden Springs Dr to Goldrush Dr | 70.7 | <50 | 148 | 565 | 71.3 | 0.6 |
| 13 | Diamond Bar Blvd | Goldrush Dr to Grand Ave | 72.4 | <50 | 248 | 882 | 73.1 | 0.7 |
| 14 | Diamond Bar Blvd | Grand Ave to Quail Summit Dr | 72.8 | 61 | 290 | 1015 | 73.7 | 0.9 |
| 15 | Diamond Bar Blvd | Quail Summit Dr to Mountain Laurel Wy | 71.0 | <50 | 180 | 668 | 72.0 | 1.0 |
| 16 | Diamond Bar Blvd | Kiowa Crest Dr to Pathfinder Rd | 72.6 | 53 | 265 | 935 | 73.4 | 0.8 |

**Table 3.10-13: Existing and Future Traffic Noise Levels (2040)**

| | | | *Existing* | *Future with Proposed General Plan* | | | | |
|---|---|---|---|---|---|---|---|---|
| *#* | *Roadway* | *Segment* | *Noise Level (dBA CNEL) at 50 ft from CL* | *Distance (ft) from CL to 60, 65, and 70 dBA CNEL Contours* | | | *Noise Level (dBA CNEL) at 50 ft from CL* | *Increase (dBA CNEL) at 50 ft from CL* |
| | | | | *60* | *65* | *70* | | |
| 17 | Diamond Bar Blvd | Pathfinder Rd to Cold Spring Ln | 71.5 | <50 | 199 | 726 | 72.3 | 0.8 |
| 18 | Diamond Bar Blvd | Cold Spring Ln to Diamond Bar Blvd | 72.0 | <50 | 224 | 805 | 72.8 | 0.8 |
| 19 | Diamond Bar Blvd / Mission Blvd | Temple Ave / Ave Rancheros to SR-57 NB Ramps | 69.0 | <50 | 113 | 453 | 70.4 | 1.4 |
| 20 | Fern Hollow Dr / Brea Canyon Rd | Pathfinder Rd to Diamond Bar Blvd | 67.7 | <50 | 54 | 269 | 68.4 | 0.7 |
| 21 | Golden Springs Dr | Racquet Club Dr to Diamond Bar Blvd | 71.5 | <50 | 193 | 707 | 72.2 | 0.7 |
| 22 | Golden Springs Dr | Copley Dr to Grand Avenue | 72.2 | <50 | 238 | 849 | 73.0 | 0.8 |
| 23 | Golden Springs Dr | Brea Canyon Rd to Copley Dr | 71.4 | <50 | 216 | 780 | 72.6 | 1.2 |
| 24 | Golden Springs Dr | SR-60 EB Ramps to Brea Canyon Rd | 71.0 | 50 | 257 | 908 | 73.3 | 2.3 |
| 25 | Golden Springs Dr | Lemon Ave to SR-60 EB Ramps | 70.1 | <50 | 139 | 536 | 71.1 | 1.0 |
| 26 | Golden Springs Dr | w/o Lemon Ave | 71.6 | <50 | 222 | 798 | 72.7 | 1.1 |
| 27 | Golden Springs Dr | Grand Avenue to Racquet Club Dr | 70.3 | <50 | 142 | 547 | 71.2 | 0.8 |
| 28 | Grand Ave | Lavender Dr to Diamond Bar Blvd | 72.3 | 77 | 340 | 1172 | 74.3 | 2.0 |
| 29 | Grand Ave | Diamond Bar Blvd to Summitridge Dr | 72.5 | 103 | 421 | 1430 | 75.2 | 2.6 |
| 30 | Grand Ave | Summitridge Dr to Longview Dr | 72.0 | <50 | 251 | 890 | 73.2 | 1.1 |
| 31 | Grand Ave | SR-57 SB Ramps to SR-57 NB Ramps | 71.7 | <50 | 208 | 755 | 72.5 | 0.8 |

**Table 3.10-13: Existing and Future Traffic Noise Levels (2040)**

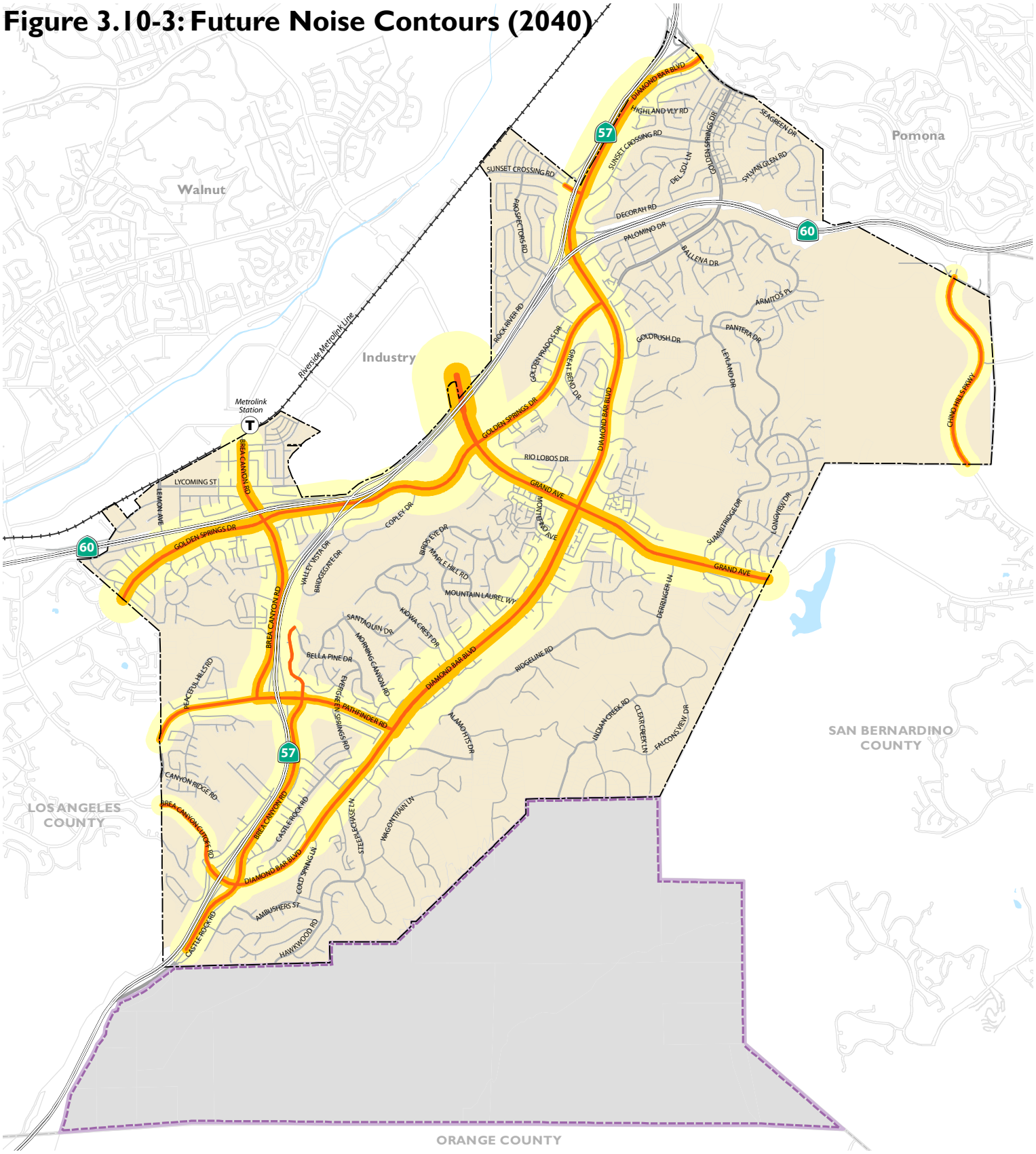
| | | | *Existing* | *Future with Proposed General Plan* | | | | |
|---|---|---|---|---|---|---|---|---|
| *#* | *Roadway* | *Segment* | *Noise Level (dBA CNEL) at 50 ft from CL* | *Distance (ft) from CL to 60, 65, and 70 dBA CNEL Contours* | | | *Noise Level (dBA CNEL) at 50 ft from CL* | *Increase (dBA CNEL) at 50 ft from CL* |
| | | | | *60* | *65* | *70* | | |
| 32 | Grand Ave | SR-57 NB Ramps to Golden Springs Dr | 71.1 | <50 | 191 | 703 | 72.2 | 1.1 |
| 33 | Grand Ave | Golden Springs Dr to Lavender Dr | 71.6 | <50 | 209 | 758 | 72.5 | 0.9 |
| 34 | N. Diamond Bar Blvd | SR-60 WB Ramps to SR-60 EB Ramps | 71.8 | <50 | 220 | 793 | 72.7 | 0.9 |
| 35 | N. Diamond Bar Blvd | SR-57 NB Ramps to Sunset Crossing Rd | 70.5 | <50 | 150 | 571 | 71.4 | 0.9 |
| 36 | Pathfinder Rd | Brea Canyon Rd to SR-57 SB Ramps | 71.4 | <50 | 197 | 720 | 72.3 | 0.9 |
| 37 | Pathfinder Rd | SR-57 SB Ramps to SR-57 NB Ramps | 70.4 | <50 | 148 | 565 | 71.3 | 0.9 |
| 38 | Pathfinder Rd | SR-57 NB Ramps to Fern Hollow Dr / Brea Canyon Rd | 72.1 | <50 | 224 | 805 | 72.8 | 0.7 |
| 39 | Pathfinder Rd | Fern Hollow Dr / Brea Canyon Rd to Diamond Bar Blvd | 71.6 | <50 | 189 | 694 | 72.2 | 0.6 |
| 40 | Pathfinder Rd | w/o Pathfinder Rd | 69.0 | <50 | 108 | 439 | 70.3 | 1.3 |
| 41 | S. Diamond Bar Blvd | SR-57 NB Ramps to Brea Canyon Rd | 72.4 | <50 | 249 | 886 | 73.2 | 0.8 |
| 42 | S. Diamond Bar Blvd | Mountain Laurel Wy and Kiowa Crest Dr | 70.2 | <50 | 166 | 623 | 71.7 | 1.5 |

Notes:
1. Traffic volumes are per Fehr & Peers data received January 2019.
2. Truck percentage assumed to be 3% for all roadways.

CL = Centerline (of roadway segments)

*Sources: Fehr & Peers, 2019; ESA, 2019.*

# Figure 3.10-3: Future Noise Contours (2040)




**Existing Noise Levels**

- 70 dB Contour
- 65 dB Contour
- 60 dB Contour

- Highways
- Ramps
- Major Roads
- Local Roads
- Railroads

- Water Features
- City of Diamond Bar
- Sphere of Influence
- County Boundary

*Source: ESA, 2016; City of Diamond Bar 2019; Dyett & Bhatia, 2019*

0 0.35 0.7 1.4
MILES

Railway Noise

The proposed General Plan update includes a transit-oriented mixed-use designation near the existing City of Industry Metrolink station. However, policies within the General Plan update take into consideration the siting of sensitive receptors near potential noise generators and would limit the exposure of sensitive receptors to any existing railway noise. Furthermore, since the proposed General Plan update does not include any railway upgrades or improvement that would increase train volumes or number of tracks, the noise impacts would be less than significant.

Stationary Noise

As for mobile sources, new development associated with the proposed General Plan update could expose existing and new sensitive receptors to stationary noise sources., such as, rooftop heating, ventilation, and air conditioning units. Any new development under the proposed General Plan update would be subject to the City's and County's noise ordinances and municipal codes and to the General Plan policies aimed at reducing noise levels from adjacent properties. Compliance with the City and County municipal code noise ordinances and General Plan update policies would reduce noise to a less than significant level.

*Proposed General Plan Policies that Address the Impact*

PS-G-10. Protect public health and welfare by enforcing the City's noise ordinance, and impose mitigation measures on future development and uses to prevent significant degradation of the future acoustic environment.

PS-G-11. The location and design of transportation facilities, industrial uses, and other potential noise generators shall not adversely affect adjacent uses or facilities.

PS-G-12. Support measures to reduce noise emissions by motor vehicles, aircraft, and trains.

PS-P-46 Use the noise and land use compatibility matrix (Table 7-1)[2] and Projected Noise Contours map as criteria to determine the acceptability of a given proposed land use, including the improvement/construction of streets, railroads, freeways, and highways.

PS-P-47 Locate new noise-sensitive uses—including schools, hospitals, places of worship, and homes—away from sources of excessive noise unless proper mitigation measures are in place.

PS-P-48 As feasible, locate land uses to buffer residential uses from potential noise generators and site buildings to serve as noise buffers.

[2] This refers to Table 7-1 in the draft General Plan Update document, as do several of the quoted polices that follow.

PS-P-49 Maintain interior and exterior noise-related development standards through the Diamond Bar Noise Control Ordinance.

PS-P-50 Require that detailed site-specific noise analysis, including the identification of noise mitigation measures, be prepared for all development proposals located where project noise exposure would be other than normally or conditionally acceptable as specified in Table 7-1. With mitigation, development should meet the allowable exterior and interior noise exposure standards established in the Noise Control Ordinance.

PS-P-51 Evaluate the land use compatibility of any proposed development project prior to approval to avoid locating loud developments near noise sensitive receptors. When walls over six feet in height are necessary to mitigate noise, a berm/wall combination with heavy landscaping, a terraced wall heavily landscaped, or other similar innovative wall design technique shall be used to minimize visual impacts.

PS-P-52 Coordinate with the Union Pacific Railroad and other agencies and private entities to consider the implementation of a railroad quiet zone and other methods of reducing railroad noise impacts on surrounding noise-sensitive uses along the Union Pacific Railroad line adjacent to the City.

PS-P-53 Ensure that noise attenuation facilities are installed as feasible in all noise-sensitive areas impacted by County, State, or federal highways through coordination with Caltrans and the Federal Highway Administration.

*Mitigation Measures*

None required.

### Impact 3.10-2 Implementation of the Proposed Project would not result in generation of excessive groundborne vibration or groundborne noise levels. (*Less than Significant*)

*Construction Vibration*

Future development under the proposed General Plan would generate groundborne noise and vibration near construction sites and, if sensitive receptors or land uses are adjacent to construction, there could be significant impacts. Vibration attenuates quickly, but high impact equipment such as pile drivers could cause impacts depending on the distance from the receptor or land use to the construction activity. Most construction activity does not require high impact equipment and would generate vibration mostly from bulldozers and loaded trucks.

The use of large bulldozers and loaded trucks for construction would generate the highest groundborne vibration levels on a typical construction site. Based on the FTA Transit Noise and Vibration Impact Assessment (FTA, 2018), large bulldozers and loaded trucks would generate 0.089 in/sec PPV and 0.076 in/sec PPV, respectively, at a reference distance of 25 feet. Table 3.10-2, above, shows the damage threshold for Class I through IV structures ranging from reinforced concrete, steel, or timber (Class I) to buildings extremely susceptible to vibration (Class IV) (FTA, 2018). Table 3.10-14 shows the minimum distance that large bulldozers and loaded trucks could operate at for Class I through IV structures without causing significant damage. Construction activities. such the use of a large bulldozer, would be required to not operate within the distances for each structure type shown in Table 3.10-14 to avoid exceeding the vibration structural damage criteria. Therefore, impacts would be less than significant.

**Table 3.10-14 Distance within Vibration Damage Criteria**

| *Construction Equipment Type* | *Class I: Reinforced concrete, steel, or timber* | *Class II: Engineered concrete and masonry* | *Class III: Non-engineered timber and masonry buildings* | *Class IV: Buildings extremely susceptible to vibration* |
|---|---|---|---|---|
| | 0.5 PPV (in/sec) | 0.3 PPV (in/sec) | 0.2 PPV (in/sec) | 0.12 PPV (in/sec) |
| Large Bulldozer | 8 feet | 12 feet | 15 feet | 21 feet |
| Loaded Trucks | 7 feet | 10 feet | 14 feet | 19 feet |

*Source: FTA, 2018*

*Traffic Vibration*

Vehicular traffic would generate groundborne vibration and under the proposed General Plan update, more land development would lead to more traffic volume. However, the vibration from vehicles is temporary and intermittent and generates up to 0.005 PPV in/sec (FTA, 2018). The vibration levels from traffic would be well below the threshold of perception for humans of 0.035 in/sec PPV, and impacts would be less than significant.

*Rail Vibration*

The operation of Metrolink commuter trains currently generate vibration levels along the Riverside line that runs adjacent to the City in the north-northwest/south-southeast direction. Although the existing line does generate vibration, the proposed General Plan update would not change vibration levels from the expansion of rail lines. Furthermore, all future developments within the City are subject to the noise screening distances in the FTA Noise and Vibration Manual (FTA, 2018). The screening distance for commuter rail lines is 750 feet with no obstruction between the rail line and receptor and 375 feet with intervening buildings. At these distances, vibration levels would attenuate rapidly and any new developments would not be affected. Impacts would be less than significant.

*Proposed General Plan Policies that Address the Impact*

Goals PS-G-10, PS-G-11, PS-G-12, and policies PS-P-46 through PS-P-53 as discussed under Impact 3.10-1.

*Mitigation Measures*

None required.

### Impact 3.10-3 Implementation of the Proposed Project would not result in development 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 could expose people residing or working in the project area to excessive noise levels. (*No Impact*)

The Planning Area is not located within an airport land use plan or within two miles of a public use airport or private airstrip. The nearest airport is the Brackett Field Airport, which is a public airport in the City of La Verne, located approximately 6.5 miles north of the Planning Area. The Brackett Field Airport Land Use Compatibility Plan sets forth land use compatibility policies that are intended to ensure that future land uses in the surrounding area will be compatible with potential long-range aircraft activities at the airport, and that the public's exposure to airport safety hazards and noise impacts are minimized. The Proposed Project Area is not located within the Airport Influence Area, including not in proximity to airport noise contours (Los Angeles County Airport Land Use Commission, 2015). Therefore, the proposed General Plan update would not expose people residing or working in the project area to excessive noise levels related to the operation of a private airstrip or public airport. No impact would occur.

*Mitigation Measures*

None required.

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# 3.11 Public Facilities and Recreation

This section provides an evaluation of potential impacts on public facilities and services projected by the Proposed Project, including impacts related to fire, police, school services, and park and recreation facilities. This section describes existing public services and facilities in the Planning Area, as well as relevant federal, State, and local regulations and programs.

There were three comments on the Notice of Preparation (NOP) regarding topics addressed in this section. Those comments include the following topics specific to Public Facilities and Recreation:

- Potential impacts of land use designation changes to the Walnut Unified School District offices and bus parking lot.
- the Los Angeles County Library stated that the Proposed Project may impact library services in the immediate area.
- Hills for Everyone requested that the EIR address impacts to urban-wildland interface areas, response times for emergency services, evacuation times for existing and/or future residents, in-lieu fees, and community facility districts.

## Environmental Setting

The study area for this analysis is the Planning Area. The public safety discussion considers fire and police services within the Planning Area, as well as fire stations in neighboring jurisdictions that also serve the Planning Area. The schools discussion considers the Walnut Valley and Pomona Unified School Districts, focusing on schools located within the Planning Area. The community facilities discussion considers community facilities such as libraries and community centers within the Planning Area. Finally, the parks, open space, and recreational facilities discussion considers parks, recreational facilities, and trails within the Planning Area.

### PHYSICAL SETTING

#### Public Safety Services

*Fire Service*

Urban fires are fires that begin in urban centers. They are typically localized, but have the potential to spread to adjoining buildings, especially in areas where homes and/or business facilities are clustered close together or in the presence of strong winds such as the Santa Ana. Other factors affecting urban fire risk and relative likelihood of loss of life or property include building age, height

and use, storage of flammable material, building construction materials, availability of sprinkler systems, and proximity to a fire station and hydrants.

Wildland fires occur in rural or heavily vegetated areas where abundant surface fuels are available to sustain a fire. Wildland fires that occur in the wildland-urban interface (WUI)—areas where undeveloped wildlands intermix with or transition into developed land—have the potential to greatly impact nearby structures and cities. Due to its setting amidst vegetated open space areas to the south (including the Sphere of Influence) and east, and the presence of open space areas interspersed among urban development, the Planning Area is at risk from wildland fires.

The City of Diamond Bar is served by the County of Los Angeles Fire Department (County Fire Department). The City's Sphere of Influence is served by CALFIRE, given that it is located within a State Responsibility Area. The locations of the three fire stations that serve the City are depicted on Figure 3.11-1, and staffing and equipment at each station are shown in Table 3.11-1. The County Fire Department has 12 staff members stationed in Diamond Bar, including three captains, three firefighter specialists, four firefighter/paramedics, and two firefighters. Each fire station is equipped with one fire engine. Station 119 contains a two-person paramedic squad.

The County Fire Department follows national guidelines that require a five-minute response time for first-arriving fire and EMS units and eight minutes for paramedic units in urban areas, as well as an eight-minute response time for first-arriving fire and EMS units and 12 minutes for paramedic units in suburban areas. In 2015, the average response time for fire and emergency calls in the City of Diamond Bar was 5:58 minutes, slightly above the target response time.

**Table 3.11-1. Fire Protection and EMS Staffing and Equipment**

| *Station* | *Staffing Description* | *Fire Engines* | *Other Key Equipment* |
|---|---|---|---|
| Station 119<br>20480 East Pathfinder Road | 1 Captain, 1 Fire Fighter Specialist, and 3 Fire Fighter/Paramedics | 1 Three-Person Engine Company | 1 Two-Person Paramedic Squad |
| Station 120<br>1051 S. Grand Avenue | 1 Captain, 1 Fire Fighter Specialist, 1 Fire Fighter/Paramedic, and 1 Fire Fighter | 1 Four-Person Assessment Engine Company [1] | |
| Station 121<br>346 Armitos Place | 1 Captain, 1 Fire Fighter Specialist, and 1 Fire Fighter | 1 Three-Person Engine Company | |

Note:

1. An engine company with some limited paramedic capabilities.

*Source: County of Los Angeles Fire Department, 2016.*

*Police Service*

Police services in the Planning Area are provided by the Los Angeles County Sheriff's Department ("County Sheriff" or "LASD"). The Walnut/Diamond Bar Station, located at 21695 East Valley Boulevard in Walnut (Figure 3.11-1), services Diamond Bar, Walnut, the easternmost portion of City of Industry and the unincorporated community of Rowland Heights. In the case of emergency, the San Dimas and Industry Stations can provide additional assistance. The LASD also provides general-service law enforcement to unincorporated areas of Los Angeles County, including areas south of Diamond Bar's city limits that are within its SOI.

As of 2019, the LASD's contract with Diamond Bar includes the purchase of a full-time equivalent of 22.5 deputies, or nearly four deputies per 10,000 residents. Moreover, additional resources that can deployed to Diamond Bar from LASD's 22 other stations and four Bureaus (Transit Service Bureau, Parks Bureau, County Services Bureau and Community Colleges Bureau). , According to the Sheriff's Department, the major obstacles to meeting response time standards are traffic during peak rush hour, and traffic in and around the schools during the beginning and ending of business hours.

**Table 3.11-2: Los Angeles County Sheriff's Department Staffing for Diamond Bar**

| *Division* | *Number of Employees/Volunteers* | *Status* |
|---|---|---|
| Traffic | 4 | Sworn |
| Street Crime | 15 | Sworn |
| Detective Unit | 4 | Sworn |
| Communications (Dispatch) | 3 | Sworn/Non-sworn |
| Reserve Officers | 11 | Sworn |
| Community Service Officers | 1 | Non-sworn |
| Volunteers in Public Safety | 90 | Non-sworn |
| Total | 128 | |

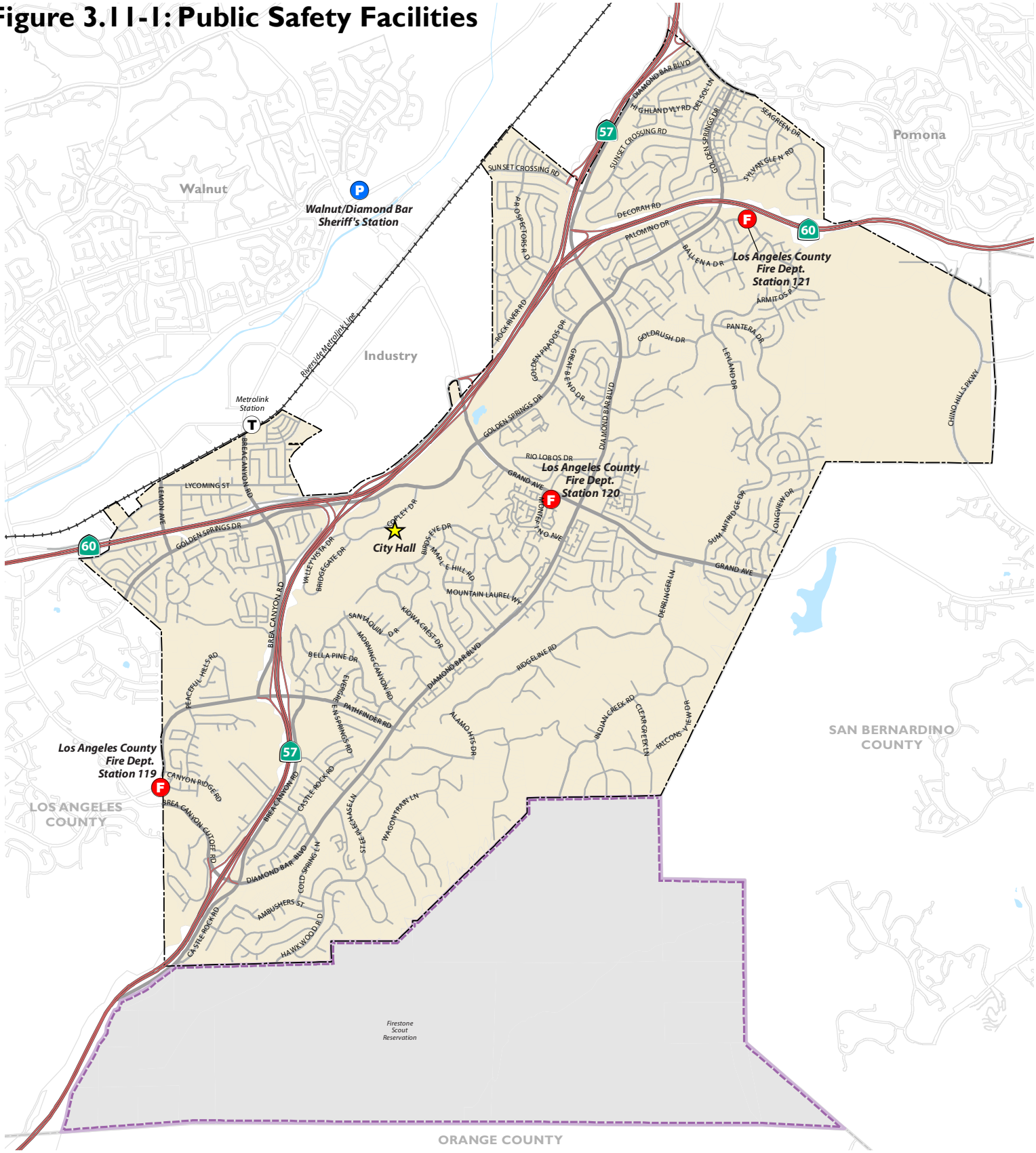
*Source: Los Angeles County Sheriff's Department, 2016.*

**Table 3.11-3. Response Standards and Times for Police Calls**

| | *Response Time (Minutes)* | |
|---|---|---|
| *Police Service* | *Department Standard* | *Diamond Bar (2016)* |
| Emergency Calls | 7 minutes | 4.7 minutes |
| Priority Calls | 15 minutes | 8.1 minutes |
| Routine Calls | 30 minutes | 20.9 minutes |

*Source: Los Angeles County Sheriff's Department, 2016.*

# Figure 3.11-1: Public Safety Facilities




*Source: City of Diamond Bar 2019; Dyett & Bhatia, 2019*

## Schools

The Planning Area is served by two school districts, the Pomona Unified School District (PUSD) and the Walnut Valley Unified School District (WVUSD). Grand Avenue is a rough delineation between the two districts, with areas north served by PUSD and areas south served by WVUSD. The boundaries of the school districts are shown in Figure 3.11-2.

WVUSD serves approximately 13,900 enrolled K-12 students within portions of the cities of Diamond Bar, Industry, West Covina, and Walnut, as well as portions of unincorporated Los Angeles County. WVUSD schools within the Diamond Bar city limits serve approximately 8,000 students in five elementary schools, two middle schools, and one high school. Projections from WVUSD's 2016 Districtwide Facilities Action Plan anticipate that student enrollment will continue to decline through 2018-2019, followed by a period of growth. While excess capacity is predicted in the next ten years for middle schools and Diamond Bar High, the total seat shortage for WVUSD elementary schools in Diamond Bar is expected to grow from under 60 in 2015-2016 to over 660 in 2025-2026. The Facilities Action Plan suggests a need for an additional elementary school or the expansion of existing elementary school campuses to accommodate future enrollment growth. The excess capacity at the middle school level will be necessary to accommodate current elementary school students as they matriculate into middle school.

PUSD serves approximately 23,200 enrolled K-12 students within portions of the cities of Diamond Bar, Industry, Pomona, and Chino Hills, as well as portions of unincorporated Los Angeles County. PUSD schools within the Diamond Bar city limits serve approximately 3,500 students in four elementary schools, one middle school and one high school. Growth projections for PUSD are flat for the next five years, and while new housing developments in the City of Pomona should help their enrollment numbers, if trends persist, PUSD may need to develop alternative uses for multiple existing school buildings.[1]

Enrollment for the 2018-2019 school year, current enrollment capacity, and remaining capacity is shown in Table 3.11-4:

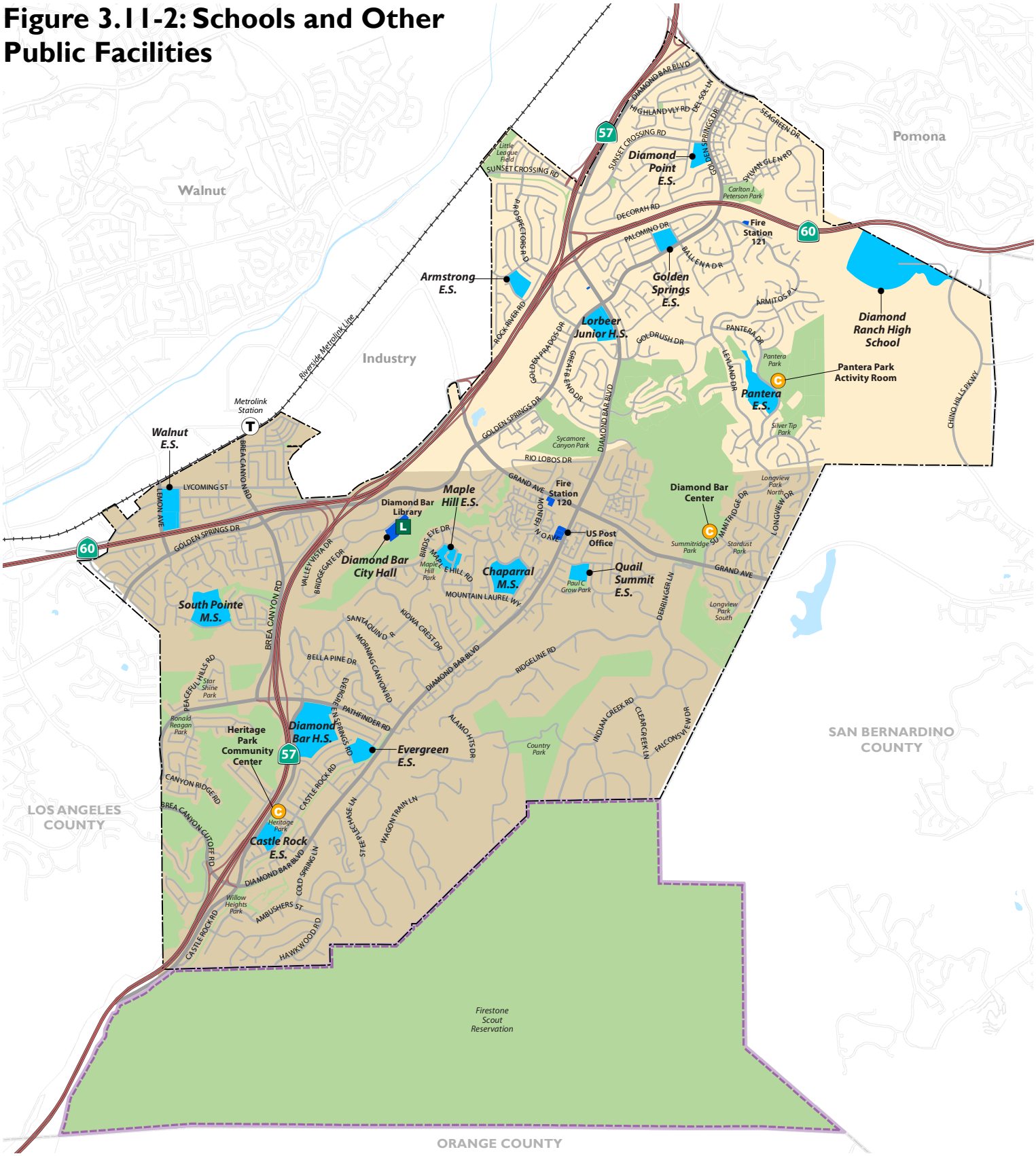
[1] Enrollment projections provided by Pomona Unified School District via Decision Insite, 2014.

**Table 3.11-4: Public and Charter School Enrollment and Capacity in Diamond Bar**

| *School Name* | *Total Enrollment, 2018-2019* | *Enrollment Capacity** | *Remaining Capacity* |
|---|---|---|---|
| **Elementary Schools (K-6)** | **4,444** | **5,577** | **1,133** |
| ***Pomona Unified School District*** | ***1,299*** | ***2,628*** | ***1,329*** |
| Armstrong Elementary | 297 | 572 | 275 |
| Diamond Point Elementary | 301 | 740 | 439 |
| Golden Springs Elementary | 296 | 856 | 560 |
| Pantera Elementary | 405 | 460 | 55 |
| ***Walnut Valley Unified School District*** | ***3,145*** | ***2,949*** | ***(196)*** |
| Castle Rock Elementary | 667 | 587 | (80) |
| Evergreen Elementary | 643 | 675 | 32 |
| Maple Hill Elementary | 518 | 475 | (43) |
| Quail Summit Elementary | 657 | 587 | (70) |
| Walnut Elementary | 660 | 625 | (35) |
| **Middle Schools (7-8)** | **2,797** | **3,545** | **742** |
| ***Pomona Unified School District*** | | | |
| Lorbeer Middle | 643 | 930 | 287 |
| ***Walnut Valley Unified School District*** | ***2,154*** | ***2,615*** | ***461*** |
| Chaparral Middle | 1,259 | 1,292 | 33 |
| South Pointe Middle | 895 | 1,323 | 428 |
| **High Schools (9-12) / Alternative Schools** | **4,234** | **5,685** | **1,451** |
| ***Pomona Unified School District*** | | | |
| Diamond Ranch High | 1,525 | 1,970 | 445 |
| ***Walnut Valley Unified School District*** | | | |
| Diamond Bar High | 2,709 | 3,715 | 1,006 |
| **Total** | **11,475** | **14,807** | **3,332** |

*Source: Pomona USD, 2016; Walnut Valley USD, 2016.*
** 2015-2016 is most recent enrollment capacity data*

# Figure 3.11-2: Schools and Other Public Facilities




Library
Community Centers
Schools/Educational Facilities
Public Facilities
Parks, Recreation & Open Space

**School Districts**
Pomona Unified
Walnut Valley Unified

Highways
Ramps
Railroads
Major Roads
Minor Roads

Water Features
City of Diamond Bar
Sphere of Influence
County Boundary

0 0.375 0.75 1.5
MILES

*Source: City of Diamond Bar 2019; Dyett & Bhatia, 2019*

## Other Community Facilities

Community centers and other public facilities are shown in Figure 3.11-2.

- **Diamond Bar City Hall** is located at 21810 Copley Drive, in a building the City purchased in 2011 after leasing space across the street in the South Coast Air Quality Management District (SCAQMD) complex for 11 years.
- **Diamond Bar Library,** a branch of the Los Angeles County Library, is housed on the first floor of the Diamond Bar City Hall building. This co-location has allowed the facility to function as a true community center, with many programs and activities.
- **The Diamond Bar Center**, located in Summitridge Park, is a 22,500-square-foot facility containing banquet and meeting rooms, accommodating parties of up to 438 people and up to 1,000 people for meetings. A pad for a freestanding building is located on the grounds of the Diamond Bar Center, which was once contemplated as a potential library site.
- **The Heritage Park Community Center** is located at 2900 S Brea Canyon Road. It accommodates up to 110 for dining and up to 200 for theatre events, and hosts classes and workshops.
- **The Pantera Park Activity Room** is located at 738 Pantera Drive and accommodates groups up to 50 and hosts classes and workshops.

## Joint Use Agreements

The City has joint use agreements with the Pomona Unified School District (PUSD) and the Walnut Valley Unified School District (WVUSD) to use gyms for adult basketball and volleyball programs, and with Pomona Unified School District to use the football field at Lorbeer Middle School.

## Parks, Open Space, and Recreational Facilities

### *Park Classification*

For planning purposes, parks are classified by type based on the size, use, and physical characteristics of the land.

- **Community Parks.** Community Parks are larger parks intended to accommodate a wide variety of active and passive recreation activities for the community. Amenities provided in a community park are focused on meeting the needs of several neighborhoods or large sections of the community, and they allow for group activities and recreational opportunities that may not be feasible in smaller neighborhood parks. Optimally, Community Parks range from 20 to 50 acres in size and serve neighborhoods within three to five miles of the park. Where a Community Park is located in a residential neighborhood, it also serves the immediate neighborhood within three-quarters of a mile to a mile. Amenities typically include community buildings, playground equipment, picnic areas and picnic shelters, barbeques, lit sports fields and courts, public restrooms, concessions, and on-site parking. Major events may be hosted in Community Parks that attract residents from throughout the city.

- **Neighborhood Parks.** Neighborhood Parks are the basic unit of the park system and are typically found in residential neighborhoods. They typically range from 5 to 20 acres in size and are intended to serve surrounding neighborhoods within a 0.75-mile to one-mile radius. Ease of access and walkability to neighborhoods served are critical factors in siting and designing Neighborhood Parks. Amenities typically include playgrounds, picnic tables and shelters, barbeques, sports fields and courts, public restrooms, and on-site parking.
- **Mini Neighborhood Parks.** Mini Neighborhood Parks are Neighborhood Parks that range from a quarter acre to five acres in size. Mini Neighborhood Parks may serve neighborhoods within the same range as Neighborhood Parks but are best used to meet limited or specialized recreation needs. Mini Neighborhood Parks can provide landscaped public use areas, scenic overlooks, trail linkages, and facilities to serve a concentrated or limited population group such as youth or seniors.
- **Specialty Parks.** Specialty Parks provide for a single use or activity and can include dog parks, trailheads, skate parks, and sports complexes. They may be standalone facilities or be located within or adjacent to other parks.

*Existing and Planned Facilities*

Existing parks, parks proposed in association with the Proposed Project, and recreational facilities in the Planning Area are shown in Figure 3.11-3. There are limited recreational facilities in the unincorporated portions of the Planning Area. As of 2016, with a city population of 57,081, the ratio of acres of parkland to 1,000 residents in Diamond Bar was 2.6, given that the Country Park is not counted towards the parkland ratio as it is a private amenity. City of Diamond Bar parks are described below, organized by type. Parkland acreage is summarized in Table 3.11-5.

**Table 3.11-5: Parkland Inventory (2019)**

| *Park Name* | *Acreage* |
|---|---|
| *Community Parks* | *109.0* |
| Carlton Peterson Park | 16.5 |
| Pantera Park[1] | 23.8 |
| Summitridge Park | 18.7 |
| Sycamore Canyon Park[2] | 50.1 |
| *Neighborhood Parks* | *30.9* |
| Diamond Canyon Park | 4.3 |
| Heritage Park | 3.3 |
| Larkstone Park | 6.8 |
| Maple Hill Park | 5.5 |
| Paul C. Grow Park | 4.5 |
| Ronald Reagan Park | 6.5 |
| Sunset Crossing Park (future) [3] | 2.8 |
| *Mini Neighborhood Parks* | *12.0* |
| Longview Park North | 1.0 |
| Longview Park South | 0.8 |
| Silver Tip Park | 2.9 |
| Stardust Park | 1.0 |
| Starshine Park | 1.7 |
| Summitridge Mini Park | 1.3 |
| Washington Park | 0.5 |
| **Total City Parks** | **151.9** |
| *Other Parks* | *134.9* |
| Country Park[4] | 134.9 |
| **Total Park Land** | **286.9** |

Note:

1. Includes Pantera Wildlife Meadow/Dog Park, originally developed as a Specialty Park.
2. Includes Sycamore Canyon Trail Head Park, originally developed as a Specialty Park.
3. This will include sports fields and is contiguous with the PONY Baseball fields. While the park is smaller than five acres, it is developed as a Neighborhood Park for this area.
4. This is a private park located in the Country Estates neighborhood in Diamond Bar. While the neighborhood is a gated community, the park essentially serves as a Community Park for this development.

*Source: City of Diamond Bar, 2019.*

*Parkland Ratio*

The General Plan establishes a parkland/recreational space standard of 5.0 acres per 1,000 residents, consistent with the Quimby Act. The Quimby Act allows the City to establish this standard as a means of requiring subdivision developers to provide a dedication of land or in lieu fees to ensure that the existing ratio of parkland acres per resident is maintained even as the number of residents increases with new development. As shown in Table 3.11-5, there are 151.9 acres of public Community and Neighborhood parkland in Diamond Bar in 2019, resulting in a ratio of 2.6 acres of public parkland per 1,000 residents. While the Country Park functions similarly to a Community Park within the Country Estates neighborhood, the 134.9 acres of parkland from Country Park cannot count towards the parkland ratio as it is a private amenity.

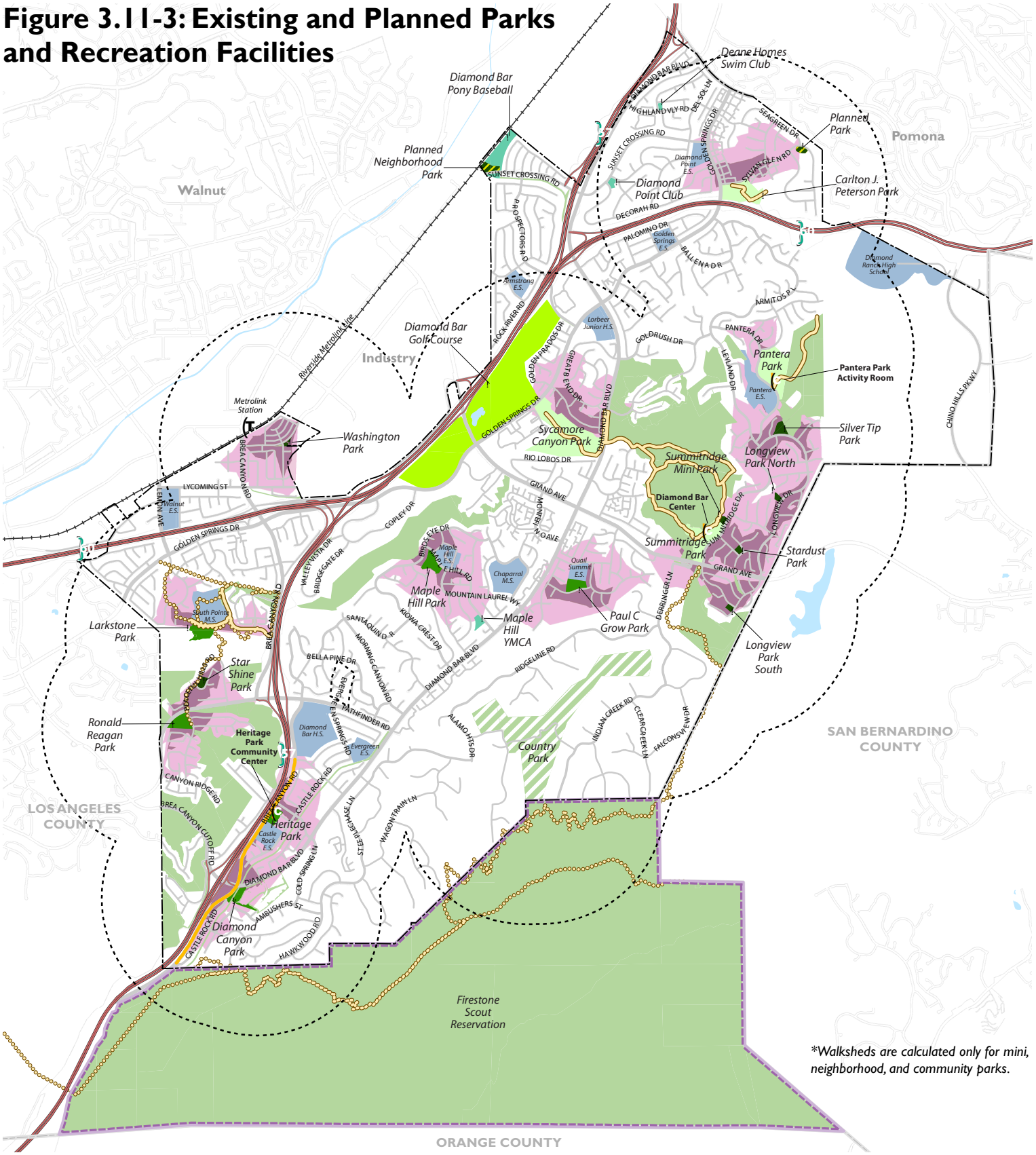
## Other Public Recreation Facilities

In addition to the city's parks, Diamond Bar residents have access to recreational open space areas and the County of Los Angeles-operated Diamond Bar Golf Course. Open space areas including Sandstone Canyon and the areas surrounding Summitridge and Pantera parks are accessible via the city's continually expanding trail network. These areas constitute hundreds of acres of City-owned open space that will be preserved in perpetuity.

The Diamond Bar Golf Course which is owned and operated by the County of Los Angeles occupies 172 acres near the western border of the city. The public golf course draws users from around the community and beyond, and offers 18 holes and clubhouse facilities. As discussed in Chapter 2, Land Use and Economic Development , the golf course is covered by the Community Core Overlay designation. Should the Golf Course cease to operate, that designation would require a master plan for the entire golf course property to ensure the orderly and cohesive implementation of its reuse.

Finally, Diamond Bar's Sphere of Influence includes part of Tonner Canyon, an undeveloped wooded canyon that stretches in a crescent shape from SR-57 northwest to SR-60. Approximately 800 acres of the Sphere of Influence is encompassed by the Firestone Boy Scout Reservation.

# Figure 3.11-3: Existing and Planned Parks and Recreation Facilities




*Walksheds are calculated only for mini, neighborhood, and community parks.

**City Parks**
- Community Park
- Neighborhood Park
- Mini Neighborhood Park
- Planned Park

**Other Recreational Facilities**
- Sports/ Recreation Facilities
- Golf Course
- Open Space/ Greenways
- Private Park

- Existing Trail
- Proposed Trail
- Class 1 Bikeways

**Other Community Facilities**
- Community Centers
- Schools/ Educational Facilities

**Parks Walkshed**
- 5 Minute Walking Distance
- 10 Minute Walking Distance

**Parks Service Area**
- Three-Quarter Mile Buffer

- Highways
- Ramps
- Railroads
- Major Roads
- Minor Roads

- City of Diamond Bar
- Sphere of Influence
- County Boundary

0 0.375 0.75 1.5 MILES

*Source: City of Diamond Bar 2019; Dyett & Bhatia, 2019*

## Recreational Trails

### *City of Diamond Bar Trails*

Diamond Bar has a trail system spanning 5.44 miles, summarized in Table 3.11-6 and shown in Figure 3.11-4. Some trails are located within City parks and open space, while others act as linkages between the parks or to other regional trails. Trails offer hikers and cyclists views of natural landscapes and the surrounding city. As of 2019, the Summitridge Trail System is the most comprehensive trail network in Diamond Bar and features an extensive system of interconnected trails. The Pantera, Peterson, and Sycamore Canyon Trails span undeveloped, natural areas of city parks.

The City's 2011 Parks and Recreation Master Plan identified a number of measures to improve trail facilities, including the installation of mile markers and benches and programming educational activities. Additional trail segments planned within the City as identified in the Parks and Recreation Master Plan include the Crooked Creek Trail and Sandstone Canyon Trails, while trails planned within the SOI include the Tonner Canyon Trail and the Schabarum Trail. These proposed trails are shown in Figure 3.11-4.

**Table 3.11-6: Existing and Proposed Trail Network (2019)**

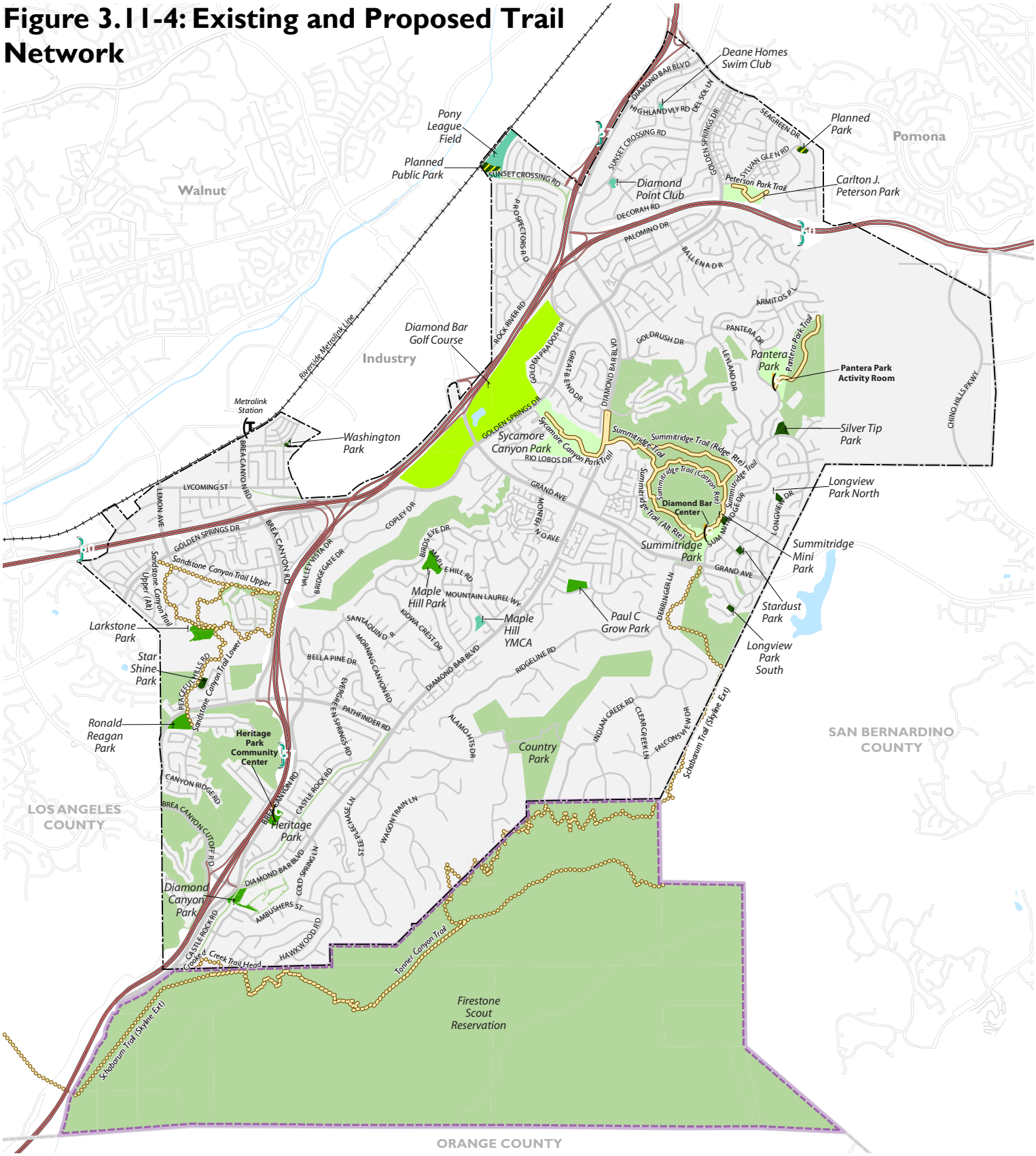
| *Existing Trails* | *Miles* |
|---|---|
| Pantera Park Trail | 0.60 |
| Peterson Park Trail | 0.29 |
| Schabarum Trail (Skyline Extension) | 7.94 |
| Summitridge Trail | 0.98 |
| Summitridge Trail (Alternate Route) | 0.61 |
| Summitridge Trail (Canyon Route) | 0.52 |
| Summitridge Trail (Ridge Route) | 0.62 |
| Sycamore Canyon Park Trail | 0.92 |
| Tonner Canyon Trail | 3.84 |
| Subtotal: Existing Trails | 16.31 |
| *Proposed Trails* | *Miles* |
| Crooked Creek Trail Head | 0.31 |
| Larkstone Park Trail | 0.44 |
| Sandstone Canyon Trail Lower | 0.79 |
| Sandstone Canyon Trail Upper | 1.80 |
| Sandstone Canyon Trail Upper (Alt) | 0.46 |
| Subtotal: Proposed Trails | 3.81 |
| **Total Existing Plus Proposed Trails** | **20.11** |

*Source: City of Diamond Bar Parks and Recreation Master Plan, 2011, Dyett and Bhatia, 2019.*

### *Regional Trails*

Several Regional Trails are proposed within Diamond Bar's Sphere of Influence. Schabarum-Skyline Trail is a long connector trail through open spaces and flood control channels connecting communities from Covina to Whittier. The trail allows recreational users and commuters to connect to a variety of other trails in the area, such as those in the Peter F. Schabarum Regional Park and Puente Hills Nature Preserve, as well as the San Gabriel and Rio Hondo River Trails. As is depicted on Figure 3.11-4, the County of Los Angeles has proposed an extension to the Schabarum Trail running through the northern edge of Diamond Bar's Sphere of Influence, connecting the regional trail to Diamond Bar's Summitridge trail system. Tonner Canyon Trail is another proposed trail that extends east-west through a portion of the Sphere of Influence.

# Figure 3.11-4: Existing and Proposed Trail Network




*Source: City of Diamond Bar 2019; Dyett & Bhatia, 2019*

# REGULATORY SETTING

## State Regulations

### *School Site Selection and Construction, California Education Code and California Public Resources Code*

#### California Education Code Part 10.5, Chapter 1 School Sites

Sections 17210 to 17224 of the California Education Code governs the evaluation and selection of new sites and additions to existing sites for public schools, and for charter schools seeking state funding for school property acquisition or construction. Section 17211 requires the governing board of a school district to evaluate property proposed for a new school site or addition to an existing site at a public hearing prior to acquisition. Section 17212 requires the governing board of a school district to evaluate expert investigations into all factors affecting the public interest regarding a proposed school site prior to acquisition, including geological and soil engineering studies of such a nature as to preclude siting of a school in any location where the geological and site characteristics are such that the construction effort required to make the building safe for occupancy is economically infeasible. Under section 17212, the evaluation should also include the site's location in respect to population, transportation, water supply, waste disposal, utilities, traffic hazards, and surface drainage conditions, and other factors affecting the costs of the project. The chapter precludes the selection of a site where hazardous geological or soil conditions, hazardous substances, or proximity to an airport would pose a danger to public health or safety.

#### California Education Code Part 10.5, Chapter 3 Construction of Buildings

The California Department of Education (CDE) establishes standards for the selection of school sites pursuant to Education Code Section 17251. In 2000, the CDE School Facilities Planning Division (SFPD) updated the Guide to School Site Analysis and Development, which was originally published in 1966. The guide assists school districts in determining the amount of land needed to meet their educational purposes according to CDE recommendations.

#### California Public Resources Code Section 21151.8

Public Resources Code Section 21151.8 requires that an EIR or negative declaration for a project involving the purchase of a school site or the construction of a new elementary or secondary school by a school district must include information on potential safety and health hazards to school occupants, including the presence of hazardous waste, hazardous substance release, pipelines, and air quality risks.

### *SB 50 (Statutes of 1998), State School Funding, Education Code Section 17620*

California Education Code 17620 establishes the authority of any school district to levy a fee, charge, dedication, or other requirements against any development within the school district for the purposes of funding the construction of school facilities, as long as the district can show justification for the fees. Senate Bill 50 was adopted in 1998. The legislation limits the power of cities and counties to require mitigation of school facilities impacts as a condition of approving new

development. It also authorizes school districts to levy statutory developer fees at levels higher than previously allowed and according to new rules.

### *Quimby Act*

The 1975 Quimby Act (California Government Code section 66477) authorized cities and counties to pass ordinances requiring that developers set aside land, donate conservation easements, or pay fees for park improvements. Under the Quimby Act, fees must be paid and land conveyed directly to the local public agencies that provide park and recreation services communitywide; however, revenues generated through the Quimby Act cannot be used for the operation and maintenance of park facilities. The act states that the dedication requirement of parkland can be a minimum of three acres per thousand residents or more, and equal to the existing parkland provision (up to five acres per thousand residents) if the existing ratio is greater than the minimum standard. In 1982, the act was substantially amended. The amendments further defined acceptable uses of or restrictions on Quimby funds, provided acreage/population standards and formulas for determining the exaction, and indicated that the exactions must show a reasonable relationship to a project's impacts as identified through studies required by CEQA. The City has adopted a subdivision ordinance pursuant to the Quimby Act with a parkland standard of 5 acres per 1,000 residents, as described below.

### *California Green Building Standards Code (CALGreen)*

Part of the California Building Standards Code, CALGreen mandates green building requirements for the planning, design, operation, construction, use, and occupancy of every newly-constructed building in the state of California[2]. CALGreen elements cover such environmental impacts as stormwater pollution, water use, energy conservation, construction waste, and building maintenance and operation[3].

## Local Regulations

### *Los Angeles County General Plan*

The Los Angeles County General Plan applies to the unincorporated County land in the Planning Area. Chapters 10 and 13 address parks and recreation and public services and facilities. Policies related to these general plan elements include parkland classifications, parkland dedication requirements, funding mechanisms for the planning and development of recreational facilities, and issuance of development fees[4][5]:

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[2] California Department of Housing and Community Development. CALGreen Compliance. Online: http://www.hcd.ca.gov/building-standards/calgreen/index.shtml. Accessed: June 19, 2019.

[3] California Department of General Services. CALGreen. Online: https://www.dgs.ca.gov/BSC/Resources/Page-Content/Building-Standards-Commission-Resources-List-Folder/CALGreen. Accessed: June 19, 2019.

[4] Los Angeles County, 2015. Los Angeles County General Plan Chapter 10: Parks and Recreation Element. Online: http://planning.lacounty.gov/assets/upl/project/gp_final-general-plan-ch10.pdf. Accessed June 19, 2019.

[5] Los Angeles County, 2015. Los Angeles County General Plan Chapter 13: Public Services and Facilities Element. Online: http://planning.lacounty.gov/assets/upl/project/gp_final-general-plan-ch13.pdf. Accessed June 21, 2019.

- Policy P/R 1.5: Ensure that County parks and recreational facilities are clean, safe, inviting, usable, and accessible.
- Policy P/R 1.7: Ensure adequate staffing, funding, and other resources to maintain satisfactory service levels at all County parks and recreational facilities.
- Policy P/R 2.2: Establish new revenue generating mechanisms to leverage County resources to enhance existing recreational facilities and programs.
- Policy P/R 3.1: Acquire and develop local and regional parkland to meet the following County goals: 4 acres of parkland per 1,000 residents in the unincorporated areas and 6 acres of regional parkland per 1,000 residents of the total population of Los Angeles County.
- Policy P/R 6.4: Ensure that new buildings on County park properties are environmentally sustainable by reducing carbon footprints, and conserving water and energy.
- Policy PS/F 1.1: Discourage development in areas without adequate public services and facilities.
- Policy PS/F 7.3: Encourage adequate facilities for early care and education.
- Policy PS/F 8.2: Support library mitigation fees that adequately address the impacts of new development.

### *Los Angeles County Code of Ordinances*

The Los Angeles County General Plan applies to the unincorporated County land in the Planning Area and contains provisions pertaining to green building, park dedication, and fire safety.

#### Title 21 – Subdivisions

Title 21 of the Los Angeles County General Plan contains information pertaining the dedication of private and public park sites and identifies when park fees are required.

#### Title 31 - Green Building Standards Code

Title 31 of the County of Los Angeles Code of Ordinances establishes design and construction guidelines with regards to energy efficiency, water efficiency and conservation, material conservation and resource efficiency, and environmental air quality[6].

#### Title 32 – Fire Code

Title 32 of the County of Los Angeles Code of Ordinances addresses issues pertaining to fire safety and construction, including directions for fuel modification plan review, and activities permitted in hazardous wildland fire areas.

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[6] County of Los Angeles. Los Angeles County, California – Code of Ordinances. Online: https://library.municode.com/ca/los_angeles_county/codes/code_of_ordinances?nodeId=TIT31GRBUSTCO. Accessed: June 19, 2019.

### *Los Angeles County Fire Department Fuel Modification Plans*

Fuel Modification Plans have been required in Los Angeles County since 1996. Fuel modification plans are required within areas designated as a Fire Hazard Severity Zone within the State Responsibility Area or Very High Fire Hazard Severity Zones within the Local Responsibility Area[7]. Within these regions, the County of Los Angeles Fire Department requires approval of a Fuel Modification Plan is for all new construction, 50% or more remodels, construction of certain outbuildings and accessory structures over 120 square feet, parcel splits, and subdivisions[8].

### *Los Angeles County Fire Department Wildfire Action Plan*

Adopted in 2009, the Wildfire Action Plan contains guidelines that recommend fire prevention measures such as creating defensible space and conducting fire-resistance retrofits in homes. Defensible space is a natural and/or landscaped area around a structure where the vegetation has been controlled, trimmed, or removed in order to reduce fire danger. The plan provides residents with information regarding emergency preparedness[9].

### *City of Diamond Bar Code of Ordinances*

#### Chapter 16.00, California Fire Code

The Fire Code is Chapter 16.00 of the Diamond Bar Municipal Code. It adopts the California Fire Code without amendments.

#### Chapter 21.32, Dedications and Exactions

This section of the Code of Ordinances provides for the dedication of land and/or the payment of fees to the city for park and recreational purposes as a condition of the approval of a tentative map. This section is enacted as authorized by the provisions of article 3, chapter 4 of the map act, also known as the "Quimby Act." The chapter establishes standards for subdivider dedications of land or payment of fees in lieu thereof, in conjunction with subdivision approval. Required acreage and fee dedications are based on the number and type of units as specified in Section 21.32.040 of the Code of Ordinances.

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[7] Los Angeles County, 2015. Los Angeles County General Plan Chapter 12: Safety Element. Online: http://planning.lacounty.gov/assets/upl/project/gp_final-general-plan-ch12.pdf. Accessed June 19, 2019.

[8] County of Los Angeles Fire Department. Fuel Modification Section. Online: https://www.fire.lacounty.gov/category/fuel-modification-section/. Accessed: June 19, 2019.

[9] Los Angeles County Flood Control District, 2015. Draft Program Environmental Impact Report: 3.7 Hazards and Hazardous Materials. Online: https://dpw.lacounty.gov/LACFCD/ewmppeir/docs/3.7%20Hazards.pdf. Accessed: June 19, 2019.

*Diamond Bar Parks and Recreation Master Plan*

The Parks and Recreation Master Plan provides an inventory and assessment of existing park and trail facilities, summarizes community input and a needs assessment, provides recommendations for expansion of the park system, and provides an outline for implementation.

# Impact Analysis

## SIGNIFICANCE CRITERIA

For the purposes of this EIR, a significant adverse impact would occur if implementation of the Proposed Project would:

**Criterion 1:** **Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:**

- **i. Fire protection,**
- **ii. Police protection,**
- **iii. Schools,**
- **iv. Parks, or**
- **v. Other public facilities;**

**Criterion 2:** **Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated; or**

**Criterion 3:** **Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment.**

## METHODOLOGY AND ASSUMPTIONS

### Population

As discussed in Chapter 2: Project Description, this analysis uses a Planning Area buildout population estimate of 66,685 for the Proposed Project, derived from a projected dwelling unit capacity of 22,177 units.

### Parks

This analysis uses the City's current General Plan standard of five acres of parkland per 1,000 population, consistent with the Quimby Act. To project the amount of parkland required at

buildout, the projected population at buildout in the planning area was divided by 1,000 and multiplied by five acres. The difference between this number and the existing amount of park acreage equals the area of new parkland needed to satisfy City park standards at buildout. An increase in population without progress toward meeting the standard would create a significant impact.

## Public Safety Services

The County Fire Department follows national guidelines that require a five-minute response time for first-arriving fire and EMS units and eight minutes for paramedic units in urban areas, as well as an eight-minute response time for first-arriving fire and EMS units and 12 minutes for paramedic units in suburban areas. In 2015, the average response time for fire and emergency calls in the City of Diamond Bar was 5:58 minutes, slightly above the target response time for first-arriving fire and EMS units.

## Schools

Projected demand for school facilities is based on student enrollment and generation data provided by WVUSD and PUSD.

Projected demand for school facilities is based on the increase in housing units resulting from buildout of the proposed General Plan and demographic changes occurring over the Proposed Project's implementation timeline. It is assumed that the proportion of Diamond Bar school students who reside in the city remains constant at 80%. 2040 generation rates are calculated by multiplying 2016-2017 generation rates by the percent change in elementary, middle, and high school aged children. Student generation rates used to project student population at buildout for elementary, junior, and high schools per single-family and multi-family unit are shown in Table 3.11-7 Assumed Student Generation Rates.

Under SB 50 (Chapter 407, Statutes of 1998), a school district may levy impact fees on new development in order to mitigate potential impacts of the development on school facilities, and payment of these fees is considered "full and complete mitigation of the impacts of any legislative or adjudicative act, or both, involving, but not limited to, the planning, use, or development of real property, or any change in governmental organization or reorganization as defined in Section 56021 or 56073, on the provision of adequate school facilities" (California Government Code Section 65995). Government Code Section 65995 limits the power of cities and counties to require mitigation of school facilities impacts as a condition of approving new development, stating that a "local agency may not deny or refuse to approve a legislative or adjudicative act, or both, involving, but not limited to, the planning, use, or development of real property, or any change in governmental organization or reorganization… on the basis of a person's refusal to provide school facilities mitigation that exceeds the amounts authorized pursuant to this section or pursuant to Section 65995.5 or 65995.7, as applicable." Thus, the consideration of potential impacts from development on school facilities anticipated under the Proposed Project is outside of the scope of this EIR and would be addressed at the time development is proposed through procedures outlined in Government Code Section 65995, and only indirect impacts resulting from the construction of new facilities are evaluated here.

**Table 3.11-7 Assumed Student Generation Rates**

| | *Student Generation Rate* | |
|---|---|---|
| *School* | *2016-2017* | *2040* |
| **Elementary Schools (K-6)** | | |
| ***Pomona Unified School District*** | | |
| Armstrong Elementary | 0.02 | 0.01 |
| Diamond Point Elementary | 0.01 | 0.01 |
| Golden Springs Elementary | 0.02 | 0.01 |
| Pantera Elementary | 0.02 | 0.01 |
| ***Walnut Valley Unified School District*** | | |
| Castle Rock Elementary | 0.03 | 0.02 |
| Evergreen Elementary | 0.03 | 0.02 |
| Maple Hill Elementary | 0.02 | 0.02 |
| Quail Summit Elementary | 0.03 | 0.02 |
| Walnut Elementary | 0.03 | 0.02 |
| **Middle Schools (7-8)** | | |
| ***Pomona Unified School District*** | | |
| Lorbeer Middle | 0.03 | 0.02 |
| ***Walnut Valley Unified School District*** | | |
| Chaparal Middle | 0.05 | 0.04 |
| South Pointe Middle | 0.04 | 0.03 |
| **High Schools (9-12) / Alternative Schools** | | |
| ***Pomona Unified School District*** | | |
| Diamond Ranch High | 0.07 | 0.06 |
| ***Walnut Valley Unified School District*** | | |
| Diamond Bar High | 0.13 | 0.10 |

*Source: Dyett & Bhatia, 2019.*

## IMPACTS

### Impact 3.11-1 Implementation of the Proposed Project would not result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for fire protection, police protection, schools, parks, or other public facilities. (*Less than Significant*)

*Fire Service*

While the projected net service population increase of 6,781 residents by 2040 could increase the demand for emergency fire response and preventive services in the planning area, the increase in population would occur incrementally over the next 20 years. No new fire service facilities are included in the Proposed Project.

Existing City of Diamond Bar and County of Los Angeles policies would minimize calls for fire protection services. The Fire Code is Chapter 16.00 of the Diamond Bar Municipal Code. It adopts the California Fire Code without amendments. Fuel modification plans are required within areas designated as a Fire Hazard Severity Zone within the State Responsibility Area or Very High Fire Hazard Severity Zones within the Local Responsibility Area[10]. Los Angeles County's Wildfire Action Plan contains guidelines that recommend fire prevention measures such as creating defensible space and conducting fire-resistance retrofits in homes[11].

Policies included in the Proposed Project regarding fire safety education and requiring the Fire Department's review of development proposals would help to keep service demand increases to a minimum. In addition, the Proposed Project promotes a relatively compact development pattern with infill development, thus ensuring that new development would be located close to existing fire stations. In general, new development anticipated under the Proposed Project would be located within three miles of an existing fire station.[12] Furthermore, policies associated with the Proposed Project, while promoting traffic calming, alternative transportation, and road diets, contain

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[10] Los Angeles County, 2015. Los Angeles County General Plan Chapter 12: Safety Element. Online: http://planning.lacounty.gov/assets/upl/project/gp_final-general-plan-ch12.pdf. Accessed June 19, 2019.

[11] Los Angeles County Flood Control District, 2015. Draft Program Environmental Impact Report: 3.7 Hazards and Hazardous Materials. Online: https://dpw.lacounty.gov/LACFCD/ewmppeir/docs/3.7%20Hazards.pdf. Accessed: June 19, 2019.

[12] The Transit Oriented Mixed Use focus area is located approximately two miles from Los Angeles County Fire Department Station 119. The Town Center Mixed Use focus area is located approximately one mile away from Station 120 and Station 121. The Neighborhood Mixed Use focus area is located approximately one mile away from Station 121. The Community Core Overlay focus area is located approximately 0.5 miles away from Station 120. Land use changes at the intersection of Grand Avenue and Diamond Bar Boulevard are located in the Town Centre Village, which is where Station 120 is based.

language to ensure that emergency vehicles could efficiently access all parts of the Planning Area, thereby reducing the need for new facilities located closer to new development.

Should new fire service facilities need to be constructed in the future, construction of those facilities could result in environmental impacts, including potential disturbances or conversion of habitat, water pollution during construction, increased noise levels, and an increase in impermeable surfaces. In the event that implementation of the Proposed Project results in the need for new fire service facilities, existing regulations, such as CALGreen, would serve to reduce potential environmental impacts associated with construction. Additionally, new projects would be subject to CEQA requirements for environmental assessment; although compliance would not necessarily guarantee that significant impacts would be avoided or mitigated, it would allow for the identification and consideration of potential impacts and mitigation.

New facilities would be located consistent with specified land use designations and would be subject to policies in the proposed General Plan. These policies would address potential impacts of siting, construction, and operation of new facilities to the extent assessed in other sections of this EIR. Proposed policies include those requiring construction best management practices to limit land disturbance, development review to protect significant biological resources, air pollution mitigation measures, promotion of water- and energy-efficient construction and landscaping, implementation of noise mitigation measures, and management of archaeological materials found during development.

Due to the minimal effects that the development of new facilities could have on the environment with compliance with existing regulations and proposed General Plan policies, the concentration of new development in areas already well-served by fire protection services, and the addition of policies to reduce fire hazards in the city, this impact is considered less than significant for fire protection.

*Police Service*

No new police service facilities are included in the Proposed Project.

The County Sheriff's Department maintains other facilities offsite that are available to the city immediately, including the Homicide Bureau, Aero Bureau, OSS (gang unit), and Traffic Services Bureau. If needed, 26 other stations in the County Sheriff's Department are also available to send resources to Diamond Bar.

The average response time in 2016 was under five minutes for emergency calls, just over 8 minutes for priority calls, and under 21 minutes for routine calls, all of which were well within the department standards. According to the County Sheriff's Department, the major obstacles to meeting response time standards are traffic during peak rush hour, and traffic in and around the schools during the beginning and ending of business hours.

The Proposed Project promotes Crime Prevention through Environmental Design (CPTED) and other public safety programs, which would help to keep service demand increases to a minimum. In addition, the Proposed Project promotes a relatively compact development pattern with infill development and new development contiguous to existing urbanized areas. Thus, potential future

development would be located close to the existing police station. Furthermore, proposed policies regarding emergency access, and acceptable travel flow would ensure that emergency vehicles could efficiently access all parts of the Planning Area, thereby reducing the need for new facilities located closer to new development.

Should new police service facilities need to be constructed in the future, construction of those facilities could result in environmental impacts, including disturbances or conversion of habitat, water pollution during construction, increased noise levels, and an increase in impermeable surfaces. In the event that of the growth anticipated by the Proposed Project results in the need for new police service facilities, new projects would be subject to CEQA requirements for environmental assessment; although compliance would not necessarily guarantee that significant impacts would be avoided or mitigated, it would allow for the identification and consideration of potential impacts and mitigation.

New facilities would be located consistent with specified land use designations and would be subject to policies in the Proposed Project that would address potential impacts of siting, construction, and operation of new facilities to the extent assessed in other sections of this EIR. Proposed policies include those requiring construction best management practices to limit land disturbance, development review to protect significant biological resources, air pollution mitigation measures, promotion of water- and energy-efficient construction and landscaping, implementation of noise mitigation measures, and management of archaeological materials found during development.

Due to the minimal effects that the development of new facilities would have on the environment with compliance with existing regulations and Proposed Project policies, the concentration of new development in areas already served by police protection services, and the addition of policies to address crime potential in the city, this impact is considered less than significant for police services.

*Schools*

The Proposed Project anticipates the construction of up to 3,264 new potential housing units in the Planning Area by 2040. Based on the student generation rates shown in Table 3.11-8, the Proposed Project will coincide with a decline in Diamond Bar public school enrollment rates by approximately 656 elementary students, 238 middle school students, and 313 high school students, between 2017 and 2040. No new school facilities are included in the Proposed Project.

Although capacity at existing and planned facilities are estimated to be sufficient to accommodate future elementary and junior high school students, demand for new facilities is not based solely on total school capacity, but also on the geographic distribution of potential residential growth in relation to the distribution of school capacity. If new residential development occurs where the capacity of nearby schools is limited, new elementary and junior high school capacity also may be required.

The construction of new schools or alterations to existing schools could have environmental impacts, including potential disturbances or conversion of habitat, water pollution during construction, increased noise levels, and an increase in impermeable surfaces. The siting of new schools is regulated by the CDE. The California Education Code (see Regulatory Setting) contains various provisions governing the siting of new public schools that require school districts to

consider potential hazards to school occupants as well as other factors relevant to the public interest prior to the acquisition of a proposed school site. Although in many cases the avoidance or mitigation of hazards to school occupants would reduce impacts to the surrounding environment, the provisions of the California Education Code would not eliminate the potential for all construction-based or operational impacts of a new school.

In the event that the growth anticipated by the Proposed Project results in the need for new or expanded public school facilities, projects would be subject to CEQA requirements for environmental assessment; although compliance would not necessarily guarantee that significant impacts would be avoided or mitigated, it would allow for the identification and consideration of potential impacts and mitigation.

New facilities would be located consistent with specified land use designations and would be subject to policies associated with the Proposed Project that would address potential impacts of siting, construction, and operation of new facilities to the extent assessed in other sections of this EIR. Proposed policies include those requiring construction best management practices to limit land disturbance, development review to protect significant biological resources, air pollution mitigation measures, promotion of water- and energy-efficient construction and landscaping, implementation of noise mitigation measures, and management of archaeological materials found during development.

Due to the expected decline in public school enrollment in schools throughout the Planning Area, the minimal effects that the development of new facilities would have on the environment with compliance with existing regulations and the Proposed Project's policies, this impact is considered less than significant for public school facilities.

*Parks*

The General Plan establishes a citywide standard of 5.0 acres of parkland per 1,000 residents. As of 2019, the City provided 149 acres of publicly accessible community and neighborhood parks for 57,495 residents, or 2.6 acres of parkland per 1,000 residents. The Proposed Project is projected to result in a new park of 2.8 acres (creating 177 acres of parkland in total) and an increase of approximately 6,367 residents at buildout (for a total population of 63,862), yielding a citywide parkland to 1,000 resident ratio of 2.77. This figure represents an improvement over the current parkland ratio, but remains below the City standard.

New park and recreation facilities have the potential to negatively impact the environment through potential disturbances or conversion of habitat, water pollution during construction, increased noise levels, an increase in impermeable surfaces, increased exposure of sensitive habitats to human activity and traffic, introduction of invasive species, and the conversion of open space that could otherwise have been preserved.

New park developments would be subject to CEQA requirements for environmental assessment; although compliance would not necessarily guarantee that significant impacts would be avoided or mitigated, it would allow for the identification and consideration of potential impacts and mitigation.

The Proposed Project's land use diagram identifies locations where potential new parks may be located. The parks would be sited and designed as part of the planning for specific development projects, rather than piecemeal prior to any increase in demand for recreational facilities in those areas. Meanwhile, the Proposed Project's policies regarding maintenance and investment in existing parks would ensure that existing facilities could continue to serve the recreational needs of the community.

The precise amount, type, and location of new parks and recreational facilities would be determined as part of a planning process. New facilities would be located consistent with specified land use designations and would be subject to policies in the Proposed Project that would address potential impacts of siting, construction, and operation of new facilities to the extent assessed in other sections of this EIR. Proposed policies include those requiring construction best management practices to limit land disturbance, development review to protect significant biological resources, promotion of water-efficient landscaping, and management of archaeological materials found during development.

Due to the minimal effects that the development of new facilities would have on the environment with compliance with existing regulations and the Proposed Project's policies to maintain existing parks, this impact is considered less than significant for park and recreation facilities.

*Other Public Facilities*

The anticipated growth associated with implementation of the Proposed Project may have an impact related to other public facilities, such as administrative facilities and the library. The Proposed Project does not establish precise service standards for these other public facilities; rather, the Proposed Project includes policies that direct the City to provide these facilities commensurate with new growth and demographic changes.

In the event that implementation of the Proposed Project results in the need for new public facilities, new projects would be subject to CEQA requirements for environmental assessment; although compliance would not necessarily guarantee that significant impacts would be avoided or mitigated, it would allow for the identification and consideration of potential impacts and mitigation.

New facilities would be located consistent with specified land use designations and would be subject to policies in the Proposed Project. These policies would address potential impacts of siting, construction, and operation of new facilities to the extent assessed in other sections of this EIR. Proposed policies include those requiring construction best management practices to limit land disturbance, development review to protect significant biological resources, air pollution mitigation measures, promotion of water- and energy-efficient construction and landscaping, implementation of noise mitigation measures, and management of archaeological materials found during development.

Due to the minimal effects that the development of new facilities would have on the environment with compliance with existing regulations and proposed General Plan policies, this impact is considered less than significant for other public facilities.

*Proposed General Plan Policies that Address the Impact*

Land Use and Economic Development

LU-G-2. Encourage compact growth and prioritize infill development to preserve existing large blocks of open space within the City and Sphere of Influence including Tonner Canyon and the Tres Hermanos Ranch; enhance community character, optimize city infrastructure investments, provide pedestrian- and bicycle-friendly neighborhoods, and enhance economic vitality.

LU-G-5. Manage development in a manner consistent with the capabilities of the City to provide public services and facilities effectively.

LU-P-2. Allow clustering or transferring of all or part of the development potential of a site to a portion of the site to protect significant environmental resources such as vegetated habitats, sensitive species, wildlife movement corridors, water features, and geological features within proposed developments as open space if the developer takes action to preserve the open space in perpetuity.

LU-P-4. Monitor and evaluate potential impacts of proposed adjacent, local, and regional developments to anticipate and require mitigation to the greatest extent feasible to reduce land use, circulation, and economic impacts on Diamond Bar.

LU-P-5. Ensure that adequate public services, facilities, and infrastructure are available or provided to support new development, including water, wastewater, stormwater, solid waste, transportation, public safety, and parks.

LU-P-6. Require new development to pay its fair share of the public facilities and off-site improvements needed to serve the proposed use.

LU-P-19. Require new developments larger than four acres to incorporate public parkland in the neighborhoods where such developments are located. Require other development to provide dedicated parkland, in lieu of fees for sites under four acres, or a combination, in accordance with Diamond Bar's park acreage standards, to meet the recreational needs of new residents.

LU-G-27. Designate adequate and equitably-distributed land for educational, cultural, recreational, and public service activities to meet the needs of Diamond Bar residents.

LU-P-52. Collaborate with public service providers and agencies including, but not limited to, the Los Angeles County Department of Parks and Recreation, Walnut Valley and Pomona school districts, Los Angeles County Sheriff's Department, Los Angeles County Fire Department, and Walnut Valley Water District to designate and pursue acquisition of land for public facilities as necessary to serve unmet facility needs of Diamond Bar residents.

LU-P-53. Ensure adequate parkland to serve the recreational needs of Diamond Bar residents by providing for a range of park sizes and amenities, equitably distributed throughout the city. Where necessary to adequately expand the park system and/or provide specialized recreational facilities and programming as identified in the Parks and Recreation Master Plan, actively pursue the acquisition of additional parkland.

LU-P-54. When a public agency determines that land it owns is no longer needed, advocate for the property to first be offered to other agencies, including the City of Diamond Bar, for public uses, prior to conversion to private sector use.

LU-P-55. Preserve publicly-owned, undeveloped hillsides, as well as privately-owned hillsides with an Open Space General Plan designation, as natural open space in perpetuity. On privately-owned property which has a residential land use designation, preserve hillsides as natural open space through Diamond Bar's Hillside Management Ordinance by allowing residential development only at the permitted densities and where development would not detract from the protection and overall perception of the hillsides as natural topographic and ecological features, or negatively impact public safety or welfare.

LU-P-56. Ensure that development on privately-owned, residentially designated land in hillside areas is compatible with surrounding natural areas by requiring that development:

a. Minimizes—as articulated by the landform grading criteria of the Hillside Management Ordinance—excavation, grading, and earthwork to retain natural vegetation and topography;
b. Preserves existing vistas of significant hillside features such as ridgelines, particularly from public places;
c. Does not create unsafe conditions;
d. Incorporates and is sensitive to natural contours and land forms in its site design, including hydrological features;
e. Preserves natural watersheds, including existing vegetation within undeveloped hillside areas to the maximum extent feasible, including mature trees and native plant materials;
f. Permits fuel modification as part of the Fire District's approved fuel modification program;
g. Utilizes planting palettes consisting of drought tolerant, fire resistant, plants with colors similar to those of native materials in the surrounding area; and
h. Groups plants within swale areas to more closely reflect natural conditions within landform graded slopes.

ED-G-1. Prioritize infill development opportunities and the reuse of existing vacant commercial space to grow the city's base of residents and employment to ensure long-term fiscal sustainability and promote conservation of natural open space.

Community Character and Placemaking

CC-P-5. Establish a landscaping palette made up of native, drought-tolerant plants and stormwater management systems with a view to enhancing beautification and sustainable landscaping practices.

CC-P-6. Prioritize sustainability in design. When incorporating on-site stormwater management through the use of bioswales, rain gardens, permeable pavement, and/or other available low-impact development technologies, require such features to be aesthetically integrated into the site design.

CC-P-13. Require that landscaped common public spaces are incorporated into new mixed-use development.

CC-P-14. Ensure that public spaces are physically and visually accessible from the street, compatible with Crime Prevention through Environmental Design (CPTED) principles, with signage acknowledging that the open space is for public use.

Circulation

CR-G-1. Improve the operating efficiency of the transportation system by reducing vehicle travel demand and providing opportunities for other modes of travel. Before approving roadway improvements that focus on increasing vehicle capacity, consider alternatives that reduce vehicle volumes and prioritize projects that would reduce single-occupancy vehicle use and greenhouse gas emissions.

CR-P-5. Require necessary transportation improvements to be in place, or otherwise guaranteed to be installed in a timely manner, before or concurrent with new development. In evaluating whether a transportation improvement is necessary, consider alternatives to the improvement consistent with CR-G- 1, and the extent to which the improvement will offset the traffic impacts generated by proposed and expected development.

CR-P-6. Require that all new development study the impact of vehicle miles traveled (VMT) and implement congestion mitigation measures to ensure that new projects do not significantly increase local city congestion based on defined level of service (LOS) standards.

Resource Conservation

RC-G-1. Create and maintain a balanced open space system that will preserve scenic beauty and community identity, protect important biological resources, provide open space for outdoor recreation and the enjoyment of nature, conserve natural resources, and ensure public health and safety.

*See Chapter 2: Land Use and Economic Development Element for policies regarding the designation of open space land. See Chapter 5: Public Facilities and Services Element for policies related to parks and recreational facilities.*

RC-G-2. Seek to link the various elements of the open space network through the development of an integrated system of trails and greenways.

RC-G-3. Preserve to the extent possible open space ridgelines, hilltops, and prominent slopes for aesthetic, biological and natural resource conservation, and safety purposes.

RC-P-1. Obtain and designate open space land through acquisition techniques such as:

a. Requiring the incorporation of open space and recreational areas into the design of new development projects, preserving and enhancing as open space significant stands of vegetation, natural landforms, and any areas of special ecological significance through site design approaches such as clustering and ecological planning.
b. Allowing clustering or transferring of all or part of the development potential of a site to a portion of the site to preserve significant environmental resources such as natural and native habitats (oak woodland, coastal sage scrub, etc.), natural creeks, artesian springs, vernal pools, seeps, riverines, wetlands, riparian habitats, wildlife corridors and linkages, and natural geological features within proposed developments as open space.
c. Allowing for acquisition of open space lands through the entitlement process through the transfer of densities among land uses of like designation.
d. Collaborating with land trusts and other conservation groups to acquire open space land through, but not limited to, conservation easements.

RC-P-2. As future parks are developed, incorporate natural open space areas and existing water resources and mature vegetation in order to provide for passive recreation opportunities and wildlife habitats.

RC-P-6. Develop standards for planning, design, management, and maintenance of trails and pathways within parks, preserves, open space, and rights-of-way.

RC-P-7. Minimize visual and environmental impacts to ridgelines, hilltops, and slopes through regulations that minimize grading, ensure that development conforms to natural topography, and maximize safety, correlating development intensity with the steepness of terrain. Landform grading criteria and maximum allowable densities shall be based upon the slope density formula as set forth in the Development Code.

RC-P-8. Work with other jurisdictions and conservation organizations to protect prominent ridges, slopes, and hilltops in and adjacent to the city and its Sphere of Influence.

RC-G-4. Maintain, protect, and preserve biologically significant areas, including Significant Ecological Area (SEA) 15, riparian areas, oak and walnut woodlands, and other areas of natural significance, providing only such recreational and cultural

opportunities as can be designed in a way that sustains, repairs or restores ecosystems rather than detracts from them.

RC-G-6. Promote the use of native and drought-tolerant vegetation in landscaping where practical.

RC-P-9. Require, as part of the environmental review process prior to approval of discretionary development projects involving parcels within, adjacent to, or surrounding a significant biological resource area, a biotic resources evaluation of the site by a qualified biologist, requiring that time-specific issues such as the seasonal cycle of plants and migration of wildlife are evaluated. Such evaluation shall analyze the existing and potential natural resources of given site following at least one site visit as well as the potential for significant adverse impacts on biological resources, and shall identify measures to avoid, minimize, or mitigate any impacts that would degrade its healthy function. In approving any permit based on the evaluation, the City shall require implementation of mitigation measures supported by the evaluation, or work with the applicant to modify the project if mitigation is determined not to be adequate to reduce the impacts to a non-significant level.

RC-P-10. Require new development to preserve mature native trees including oak and walnut, and trees of significant cultural or historical value such as sycamore and arroyo willow, etc., as set forth under the Diamond Bar Tree Preservation and Protection Ordinance. Regularly review the ordinance and update it as necessary to reflect current best practices.

RC-P-11. Require that all development, including roads and trails, proposed adjacent to riparian and other biologically sensitive habitats avoid significant impacts that would undermine the healthy natural functioning of those areas. Require that new development proposed in such locations be designed to:

- Minimize to the greatest extent possible or eliminate impacts on environmentally sensitive areas;
- Protect the visual seclusion of forage areas from road intrusion by providing vegetative buffering;
- Provide wildlife movement linkages to water, food, shelter, and nesting sites;
- Allow wildlife and migration access by use of tunnels or other practical means;
- Provide vegetation that can be used by wildlife for cover along roadsides;
- Avoid intrusion of night lighting into identified areas through properly designed lighting systems;
- Avoid impacts to wetlands, natural springs and seeps and maintain access for wildlife or when natural water areas are removed or blocked provide a locally suitable and equal replacement; and

- To the greatest extent possible, prevent street water runoff from flowing into waterways

RC-P-12. Support and cooperate with the efforts of other local, State, and federal agencies, groups, and private entities—including Los Angeles County, neighboring jurisdictions, and conservation groups—to preserve environmentally sensitive hillsides, canyon areas, wildlife corridors and riparian areas within Diamond Bar's SOI, including the Puente – Chino Hills Wildlife Corridor, Tres Hermanos Ranch, Tonner Canyon, and SEA 15 to provide regional connectivity, and to sustain the ecological function of natural hillsides and biological resources.

a. Discourage development in areas with identified significant biological resources, such as SEAs.

b. Discourage development in riparian habitats, streambeds, wetlands, coastal sage scrub, cactus scrub, and native woodlands in order to maintain and support their preservation in a natural state, unaltered by grading, fill, or diversion activities.

c. Preserve and restore oak woodlands and other native woodlands that are conserved in perpetuity with a goal of no net loss of existing woodlands.

RC-P-13. Utilize native and drought-tolerant plants in landscaping for public buildings and parks and encourage the use of native and drought-tolerant species on private property. Develop a list of recommended native, low-water-use, and drought-tolerant plant species, as well as a list of invasive species to avoid.

RC-G-7. Protect waterways—including creeks, riverines, artesian springs, seeps, and wetlands—and watersheds in Diamond Bar from pollution and degradation as a result of urban activities.

RC-G-9. Conserve natural open spaces, biological resources, and vegetation to promote groundwater recharge.

RC-G-10. Minimize the consumption and waste of potable water through water conservation and use of reclaimed water.

RC-G-12. Pursue methods to control, capture, and reuse stormwater runoff for the purposes of groundwater recharge and local water recovery.

RC-P-15. Support efforts to establish mitigation bank programs to restore habitat within Open Space-designated and deed-restricted lands.

RC-P-16. Coordinate with local water agencies to encourage and expand the use of reclaimed water, stored rainwater, or household gray water for irrigation and other

appropriate uses and consider construction of dual water systems, where feasible, for development.

RC-P-17. Continually evaluate and upgrade the efficiency of City irrigation systems, prioritizing the use of reclaimed water.

RC-P-19. Require new development to reduce the waste of potable water through the use of drought-tolerant plants, efficient landscape design and application, and reclaimed water systems.

RC-P-20. Require the implementation of the latest water conservation technologies into new developments.

RC-P-24. Protect and, where feasible, enhance or restore the city's waterways and drainages, preventing erosion along the banks, removing litter and debris, and promoting riparian vegetation and buffers.

RC-P-25. Control and improve the quality of stormwater entering local water bodies by requiring new development to incorporate best management practices (BMPs), and Low Impact Development (LID) strategies that support on-site retention, detention, and/or treatment of stormwater through means such as infiltration, evapotranspiration, biofiltration, and rainfall harvest and use.

RC-P-28. Encourage new development to minimize impacts on air quality through the following measures:

- Use of building materials and methods that minimize air pollution.
- Use of fuel-efficient heating equipment, and other appliances, such as water heaters, swimming pool heaters, cooking equipment, refrigerators, furnaces, boiler units, and low or zero-emitting architectural coatings.
- Use of clean air technology beyond what is required by South Coast Air Quality Management District (SCAQMD), leveraging State and local funding sources.

RC-P-30. Ensure that new development projects are designed and implemented to be consistent with the South Coast Air Quality Management Plan.

RC-P-37. Require construction and grading plans to include State and AQMD-mandated measures to the maximum extent possible fugitive dust and pollutants generated by construction activities and those related to vehicle and equipment cleaning, fueling and maintenance as well as mono-nitrogen oxides (NOx) emissions from vehicle and equipment operations.

RC-P-39. Address impacts of new development projects that may individually have insignificant impacts on air quality, but which together with other projects in the Planning Area may be cumulative significant by establishing mitigation programs at the area wide or citywide level.

RC-P-46. Establish a procedure for the management of archaeological materials found on-site during a development, including the following provisions:

- If significant resources are known or suspected to be present on a site, require that a qualified archaeologist conduct monitoring of building demolition and/or construction grading activities.
- If materials are found on-site during construction activities, require that work be halted until a qualified archaeologist evaluates the find and makes a recommendation for the preservation in place or recovery of the resource.

RC-P-47. Seek to preserve discovered archaeological resources in place in order to maintain the relationship between the artifacts and their archeological context, where feasible.

RC-P-49. Establish development process to avoid the disturbance of tribal cultural resources. Where possible, seek to preserve resources in place, exploring opportunities of permanent protection of the resources where feasible.

RC-P-50. Conduct project-specific Native American consultation early in the development review process to ensure adequate data recovery and mitigation for adverse impacts to significant Native American sites. Ensure that City staff and local developers are aware of their responsibilities to facilitate Native American consultation under Senate Bill 18 and Assembly Bill 52.

RC-P-51. Establish a procedure for the management of paleontological materials found on-site during a development, including the following provisions:

- If materials are found on-site during grading, require that work be halted until a qualified professional evaluates the find to determine if it represents a significant paleontological resource, and makes a recommendation for the preservation in place or recovery of the resource.
- If the resource is determined to be significant, the paleontologist shall supervise removal of the material and determine the most appropriate archival storage of the material.
- Appropriate materials shall be prepared, catalogued, and archived at the applicant's expense and shall be retained within Los Angeles County if feasible.

Public Facilities and Services

PF-G-1. Maintain and expand the system of parks, recreation facilities, open spaces, and trails that meet the active and passive recreational needs of residents of all ages and abilities.

PF-G-2. Provide new parks in concert with new residential development while ensuring that parkland is distributed equitably across the city.

PF-G-3. Require that new development bears the costs of new park and recreation facilities that are needed to meet any increase in demand resulting from the new development, or from which the new development would benefit.

PF-P-1. Periodically update the Parks and Recreation Master Plan to assess existing park and recreational facilities, assets, and deficiencies, and to plan for new facility locations, programs, and funding.

PF-P-2. Continue to seek public input on parks and recreation needs and preferences through surveys, presentations to the Parks and Recreation Commission, neighborhood meetings and workshops, and other community outreach methods as necessary, such as when siting/designing new parks, when updating the Parks and Recreation Master Plan, when renovating existing parks, etc.

PF-P-3. Identify and pursue funding and financial resources to acquire land for parks and to continue providing high quality maintenance for Diamond Bar's parks. Trails, and recreational facilities.

PF-P-4. Encourage the co-location of new parks and recreational facilities with schools, community centers, libraries, and other public facilities to create neighborhood focal points that contribute to neighborhood identity.

PF-P-5. Continue cooperative efforts with the Walnut Valley and Pomona Unified School Districts through joint use agreements for park and recreational facilities.

PF-P-6. Actively engage in Cal Poly Pomona's plans for the redevelopment of the former Lanterman site, and seek joint use opportunities for parks and recreation facilities developed on the site.

PF-P-7. Distribute new parks equitably through Diamond Bar, ensuring that residents are within a ¾-mile radius of a neighborhood park or community park.

PF-P-8. Develop and maintain a park impact fee consistent with the General Plan standard of five acres per 1,000 residents in Diamond Bar.

PF-P-9. Prioritize public parkland dedication as a condition of new residential development, allowing the use of in lieu fees only where parkland dedication is not feasible, to ensure a public park system available to the entire community.

PF-P-10. Should Los Angeles County choose to cease operations of the Diamond Bar Golf Course or reduce the area of the Golf Course, prepare a master plan for development that includes opportunities for public parks comprising a range of passive and active recreational uses to suit the needs of Diamond Bar residents.

PF-P-11. Promote the joint development, use, and maintenance of parks and open space facilities with adjacent jurisdictions, the County of Los Angeles, and the State of California.

PF-P-12. Routinely review existing funding mechanisms and explore additional funding opportunities to support additional parks and recreation facilities and programs, such as State and federal grants, Park Bonds and property tax assessments, Community Facility Districts, and Lighting and Landscape Assessment Districts.

PF-P-13. Develop facility, park design, and site planning standards that take into consideration accessibility, flexible use, adaptability, energy and water efficiency, ease of maintenance, and sustainable design elements that take advantage of the natural processes of healthy ecosystems, while preserving historic and cultural resources and sensitive habitats.

PF-P-14. Preserve existing and future City-owned recreational open space as recreational open space in perpetuity.

*City-owned recreational open space includes undeveloped areas of City parks that are available for passive recreational use, and portions of designated open space land that have been dedicated to the City for use as trails. See Chapter 2: Land Use and Economic Development Element and Chapter 5: Resource Conservation Element for additional policies regarding the preservation of open space.*

PF-P-15. Prioritize the development of additional recreational facilities such as athletic fields, hard courts, and other recreational facilities that respond to citizen needs and preferences.

PF-P-16. Continue to provide programming and services for seniors, including active programs, classes, and activities and outings, adjusting programming based on needs and preferences, particularly as Diamond Bar's residents age.

PF-P-17. Require that the recreational needs of all children and adults, including persons with disabilities, seniors, and dependent adults, be addressed in recreational facility planning efforts.

PF-P-18. Link parks, open spaces, and regional hiking trails with a trail network. Incorporate existing trails and bicycle and pedestrian infrastructure, working with willing landowners to prioritize land acquisition where necessary. Where possible, incorporate landscaping and enhance natural features.

PF-P-19. Update the Parks and Recreation Master Plan to include standards for planning, design, management, and maintenance of trails and pathways within parks, preserves, open spaces, and rights-of-way. Encourage the installation of amenities such as rest areas, benches, water facilities, hitching posts and wayfinding signs serving trails and scenic routes that adhere to a standard signage palette.

PF-P-20. Maintain the Parks and Recreation Master Plan goal of at least one mile of recreational trails for each 10,000 persons.

PF-P-21. Seek grants and alternative funding mechanisms for trail development and maintenance.

PF-P-22. Partner with non-profit organizations to assist in developing and managing the trails system and providing community outreach and education.

PF-P-23. Coordinate trail planning with regional trail and open space plans to ensure connectivity and access to the regional trail system.

PF-P-24. Coordinate land use planning with planning of school facilities. Work with the WVUSD and PUSD to monitor demographics and housing and enrollment trends, and work with the school districts from the early stages of area-wide planning and school site selection processes, reserving school sites to accommodate school district needs as necessary.

Public Safety

PS-P-1. Require new emergency facilities, including, but not limited to, fire stations, paramedic services, police stations, hospitals, ambulance services, and emergency operations centers be designed to withstand and remain in operation following the maximum credible earthquake event.

PS-P-6. Prevent and control soil erosion and corresponding landslide risks through hillside protection and management.

PS-P-10. Ensure that a drainage study has been completed by a qualified engineer as a prerequisite to new development or the intensification of existing development, certifying that the proposed development will be adequately protected, and that implementation of the development proposal will not create new downstream flood hazards.

PS-P-13. Reduce the flooding impact of a storm event by enhancing the city's green infrastructure system to complement the gray infrastructure system.

PS-P-15. Require adherence to Diamond Bar Fire and Building Codes, including minimum road widths and adequate access and clearance for emergency vehicles and the identification of all roads, streets, and major public buildings a in a manner that is clearly visible to fire protection and other emergency vehicles.

PS-P-16. For privately-owned property within areas designated for development that are subject to high wildfire risk, condition approval of development upon the implementation of measures to reduce risks associated with that development, including, but not limited to, fuel modification plans and Fire Code requirements in effect at the time of project approval.

PS-P-17. Protect and promote native oak woodlands that border residential areas as fire buffers.

PS-P-20. Prior to permit approval, ensure that all new development located in a Very High Fire Hazard Severity Zone or a State Responsibility Area (SRA) is served by adequate infrastructure, including safe access for emergency response vehicles, visible street signs, and water supplies for fire suppression.

PS-P-21. Collaborate with the County of Los Angeles Fire Department to ensure that properties in and adjacent to High or Very High Fire Hazard Severity Zones as indicated in Figure 7-6 are adequately protected from wildland fire hazards in a manner that minimizes the destruction of natural vegetation and ecosystems through inspection and enforcement. Update Figure 7-6 as new information becomes available from CAL FIRE.

PS-P-22. Support the County of Los Angeles Fire Department's Provision of weed abatement and brush thinning and removal services in High and Very High Fire Hazard Severity Areas in order to curb potential fire hazards.

PS-P-23. Where development is proposed within High or Very High Fire Hazard Severity Zones, ensure that the County of Los Angeles Fire Department has the opportunity to review the proposal in terms of its vulnerability to fire hazards and its potential as a source of fire, including fuel modification plan review for new development or additions that are equal or greater than 50 percent of the existing square footage.

PS-G-5. Maintain safety services that are responsive to citizens' needs to ensure a safe and secure environment for people and property in the community.

PS-G-6. Support community-based policing partnerships to enhance public awareness of crime prevention and strengthen the relationship between the Los Angeles County Sheriff's Department and neighborhoods throughout the city.

PS-G-7. Provide effective emergency preparedness and response programs.

PS-P-29. Coordinate with the Los Angeles County Sheriff's Department for review of applications for new development and for the intensification of existing development, ensuring that review is consistent with Crime Prevention Through Environmental Design (CPTED) principles.

*CPTED is a multi-disciplinary approach to deterring criminal behavior through environmental design. CPTED Principles include natural surveillance or "eyes*

*on the street," clear delineation and access to public and private spaces, and continued upkeep and maintenance of spaces.*

PS-P-30. Continue to promote the establishment of neighborhood watch and business watch programs to encourage community participation in the patrol of neighborhoods.

PS-P-31. Continue to utilize the contract model of government with Los Angeles County Fire and Sheriff's Departments and provide facilities, staffing, and equipment to attain the shortest possible response times as set forth by the adopted standards of those public safety organizations.

PS-P-32. Support the achievement of police and fire response times through the implementation of traffic management measures that mitigate congestion during peak rush hour and during school drop-off and pick-up times.

*For additional traffic management policies, refer to Chapter 4: Circulation Element.*

PS-P-33. Monitor fire-flow capability throughout the Planning Area and improve water availability and redundancy for any locations that have flows considered inadequate for fire protection. Continue to work with various water purveyors to maintain adequate water supply and require on-site water storage for areas where municipal water service is not available.

PS-P-34. Coordinate with the County of Los Angeles Fire Department to review new development applications for consistency with applicable Fire Codes.

PS-P-35. Work cooperatively with the Los Angeles County Fire Department, CAL FIRE, and fire protection agencies of neighboring jurisdictions to ensure that all portions of the Planning Area are served and accessible within an effective response time.

PS-P-36. Work with the Los Angeles County Sheriff's Department and County of Los Angeles Fire Department to ensure that the cost of providing new staffing, facilities, and equipment, including paramedic services, to support new development is assessed against the developments creating that need.

PS-P-37. Maintain area-wide mutual aid agreements and communication links with adjacent governmental authorities and other participating jurisdictions.

PS-G-10. Protect public health and welfare by enforcing the City's noise ordinance, and impose mitigation measures on future development and uses to prevent significant degradation of the future acoustic environment.

PS-G-11. The location and design of transportation facilities, industrial uses, and other potential noise generators shall not adversely affect adjacent uses or facilities.

PS-G-12. Support measures to reduce noise emissions by motor vehicles, aircraft, and trains.

PS-P-47. As feasible, locate land uses to buffer residential uses from potential noise generators and site buildings to serve as noise buffers.

PS-P-48. Maintain interior and exterior noise-related development standards through the Diamond Bar Noise Control Ordinance.

PS-P-49. Require that detailed site-specific noise analysis, including the identification of noise mitigation measures, be prepared for all development proposals located where project noise exposure would be other than normally or conditionally acceptable as specified in Table 7-1. With mitigation, development should meet the allowable exterior and interior noise exposure standards established in the Noise Control Ordinance.

PS-P-50. Evaluate the land use compatibility of any proposed development project prior to approval to avoid locating loud developments near noise sensitive receptors. When walls over six feet in height are necessary to mitigate noise, a berm/wall combination with heavy landscaping, a terraced wall heavily landscaped, or other similar innovative wall design technique shall be used to minimize visual impacts.

PS-P-52. Ensure that noise attenuation facilities are installed as feasible in all noise-sensitive areas impacted by County, State, or federal highways through coordination with Caltrans and the Federal Highway Administration.

Community Health and Sustainability

CHS-P-1. Strive to ensure that all areas of the community have an equal distribution of public parks and public recreational facilities to maximize access.

CHS-P-29. Require noise mitigation measures, which could include buffers, noise barriers, or natural open space, and vegetation, between new sensitive uses such as residential units and schools, and major noise polluters such as SR-57 and SR-60, the Metrolink Riverside rail line, and heavy industry.

*Mitigation Measures*

None required.

### Impact 3.11-2 Implementation of the Proposed Project would not increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated. (*Significant and Unavoidable*)

Without the development of new parks and adequate maintenance of existing parks, the potential increase in population anticipated by the Proposed Project could place additional physical demands on existing parks and facilities. An increase in the number of park users may cause parks to be in active use for longer periods of time and/or to be used more intensively over the course of a typical day. As a result, vital park elements such as vegetation, built structures, walking/biking paths, sport facilities, and others could face increased wear-and-tear over the course of the planning horizon and, without proper maintenance, their useful life could be shortened.

The Diamond Bar Golf Course, which is owned and operated by the County of Los Angeles, occupies 172 acres near the western border of the city. As discussed in Chapter 2, Land Use and Economic Development, the golf course is covered by the Community Core Overlay designation. Should the Golf Course cease to operate, that designation would require that at least 100 contiguous acres of the Golf Course be developed as public parkland.

The Proposed Project includes provisions to ensure ongoing expansion, investment in, and maintenance of public recreation facilities, thus preventing any substantial physical deterioration of existing or new facilities. Proposed Project policies require the identification of funding for the expansion and maintenance of parks, trails, and other recreational facilities and programs. The Proposed Project seeks to make the development of future recreational facilities responsive to the needs and preferences of the public by soliciting public opinion and ensuring that parks are distributed equitably throughout the City, thereby reducing the likelihood that any existing neighborhood, community, or regional parks, or other recreational facilities would experience overuse that could result in the physical deterioration of those facilities.

The Proposed Project requires the development and maintenance of park impact fees and prioritizes the dedication of public parkland as a condition for new residential development, thus ensuring that funding available for parkland expansion and maintenance rises in accordance with new development.

The Proposed Project contains policies designed to minimize the environmental impact of park and recreational facility development, including the development of design and site planning standards that consider energy and water efficiency, sustainable design elements, and habitat and cultural resource preservation.

While the policies contained in the Proposed Project will help address potential adverse effects of development on the quality and availability of park services, the Proposed Project does not provide for adequate parkland to meet the 5.0 acres of parkland per 1,000 residents standard. As shown in Figure 3.12-3, the Proposed Project contains one new proposed park site at the west terminus of Sunset Crossing Road. The completion of Sunset Crossing park will add 2.8 acres to the City's park system, resulting in a ratio of parkland per 1,000 residents of 2.77 for City-owned parkland. This ratio is below the Proposed Project's designated ratio of 5.0 acres per 1,000 residents. Additionally,

the Proposed Project contains plans for the change in several park designations, from Neighborhood to Community Park (Carlton J. Peterson Park, Pantera Park, Summitridge Park, and Sycamore Canyon Park).

As shown in Figure 3.12-3, the Proposed Project contains sections of Diamond Bar that do not fall within the ¾ of service area of any existing or proposed park. These areas include a portion of the northeastern edge of the City, extending from the Riverside Metrolink Line to near Goldrush Drive, and two areas in the southeast, between Bella Pine and Pathfinder Drives and between Wagon Trail Lane and Diamond Bar city limits. These areas include land use classifications for Low-Medium Residential, Low Density Residential, and Rural Residential Development, and thus are likely to generate unmet demand for park access from residents.

Therefore, even with implementation of policies contained in the Proposed Project, impacts associated with substantial physical deterioration of park and recreation facilities are significant and unavoidable.

### *Proposed General Plan Policies that Address the Impact*

Policies PF-G-1, PF-G-2, PF-G-3, PF-P-1, PF-P-2, PF-P-3, PF-P-6, PF-P-7, PF-P-8, PF-P-9, PF-11, PF-P-12, PF-P-13, PF-P-14, PF-P-15, PF-P-16, PF-P-17, PF-P-18, PF-P-19, PF-P-20, PF-P-21, PF-P-22, PF-P-23, PF-P-24, LU-P-2, LU-P-5, LU-P-19, LU-G-27, LU-P-52, LU-P-53, RC-G-1, and RC-G-2 as discussed under Impact 3.11-1, in addition to the following:

<u>Resource Conservation</u>

RC-P-1. Obtain and designate open space land through acquisition techniques such as:

a. Requiring the incorporation of open space and recreational areas into the design of new development projects, preserving and enhancing as open space significant stands of vegetation, natural landforms, and any areas of special ecological significance through site design approaches such as clustering and ecological planning.
b. Allowing clustering or transferring of all or part of the development potential of a site to a portion of the site to preserve significant environmental resources such as natural and native habitats (oak woodland, coastal sage scrub, etc.), natural creeks, artesian springs, vernal pools, seeps, riverines, wetlands, riparian habitats, wildlife corridors and linkages, and natural geological features within proposed developments as open space.
c. Allowing for acquisition of open space lands through the entitlement process through the transfer of densities among land uses of like designation.
d. Collaborating with land trusts and other conservation groups to acquire open space land through, but not limited to, conservation easements.

RC-P-2. As future parks are developed, incorporate natural open space areas and existing water resources and mature vegetation in order to provide for passive recreation opportunities and wildlife habitats.

RC-P-6. Develop standards for planning, design, management, and maintenance of trails and pathways within parks, preserves, open space, and rights-of-way.

Community Health and Sustainability

CHS-P-1. Strive to ensure that all areas of the community have an equal distribution of public parks and public recreational facilities to maximize access.

CHS-P-24. Explore opportunities to incorporate community gardens into City parks and open space areas, and encourage the Diamond Bar Community Garden and other organizations to facilitate the development, administration, and operation of additional community gardens in the city.

*Mitigation Measures*

None available. The proposed General Plan includes several policies and land use changes aimed at increasing available and accessible parkland and open space. However, total parkland at buildout falls severely short of achieving the parkland ratio of 5.0 acres per 1,000 residents, and no mitigation is feasible that can make up this gap. Calculation of the parkland ratio does not include the 134.9 acres of parkland from the Country Park, which is a private amenity, or the proposed 100 acres of parkland associated with the Community Core Overlay, given that Los Angeles County has not ceased operation of the golf course. Conversion of these two areas would increase the parkland ratio but is not feasible at the time of analysis. A significant amount of land in Diamond Bar would need to be converted to public parkland to reduce the impact to a level that is less than significant. Therefore, the impact remains significant and unavoidable.

### Impact 3.11-3 Implementation of the Proposed Project would not include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment. (*Less than Significant*)

As stated, the Proposed Project anticipates the development of one new park at the westerly terminus of Sunset Crossing Road. In addition, the Proposed Plan calls for the continued support and adequate provision of library services, adult education programs, and community centers, in keeping with the needs and preferences of the population. Should new recreational facilities need to be constructed in the future, construction of those facilities could result in environmental impacts, including potential disturbances or conversion of habitat, water pollution during construction, increased noise levels, and an increase in impermeable surfaces.

New park developments would be subject to CEQA requirements for environmental assessment; although compliance would not necessarily guarantee that significant impacts would be avoided or mitigated, it would allow for the identification and consideration of potential impacts and mitigation. The precise amount, type, and location of the new parks and recreational facilities would be determined during the planning process for individual development projects or master/specific plans, and would be consistent with the Proposed Project land use designations and policies.

Elements of the Proposed Project designed to minimize the environmental impact of new development, including the development of new recreational facilities, include developing park and recreational facility design and planning standards that consider energy and water use efficiency and sensitive habitat preservation, and incorporate natural and/or drought-tolerant landscaping where reasonable; promoting sustainable stormwater management through the construction of on-site green infrastructure; and providing provisions for the construction of infill development and preservation of open space, hillsides, and Significant Ecological Areas.

As discussed under Impact 3.12-1, impacts associated with new recreation facilities would be less than significant with implementation of existing regulations and proposed General Plan policies.

*Proposed General Plan Policies that Address the Impact*

Policies PF-G-1, PF-G-2, PF-P-1, PF-P-14, PF-P-19, PF-P-22, PF-P-23, PF-P-25, PS-P-6, PS-P-10, PS-P-13, CC-P-5, CC-P-6, LU-P-2, LU-P-55, LU-P-56, ED-G-1, RC-P-2, RC-P-6, RC-P-7, RC-P-8, RC-P-9, RC-P-10, RC-P-11, RC-P-12, RC-P-13, RC-P-15, RC-P-16, RC-P-17, RC-P-19, RC-P-20, RC-P-24, RC-P-25, RC-P-28, RC-P-30, RC-P-37, RC-P-39, RC-P-46, RC-P-47, RC-P-49, RC-P-50, and RC-P-51 as discussed under Impact 3.11-1, in addition to the following:

Resource Conservation

RC-G-3. Preserve to the extent possible open space ridgelines, hilltops, and prominent slopes for aesthetic, biological and natural resource conservation, and safety purposes.

Public Facilities and Services

PF-G-4. Continue to provide residents of all ages and abilities with access to high quality local educational facilities and learning opportunities in cooperation with the Walnut Valley and Pomona Unified School Districts (WVUSD and PUSD, respectively), the Los Angeles County library system, and community organizations.

PF-G-5. Continue to provide and expand opportunities for all residents to gather, interact, exchange ideas, and establish and realize common goals.

*Mitigation Measures*

None required.

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# 3.12 Transportation

This section assesses potential environmental impacts on the transportation system from future development anticipated by the Proposed Project, including those related to vehicle miles traveled (VMT), roadway hazards, emergency access, public transit, bicycle, and pedestrian facilities. This section describes the existing transportation system, characteristics, and operations of the Planning Area, as well as relevant federal, State, and local regulations and programs.

There were numerous comments on the Notice of Preparation (NOP) regarding topics covered in this section. Those comments include the following topics specific to Transportation.

- Comments were received stating that Senate Bill 743 (SB 743) mandates that CEQA review of transportation impacts of proposed developments be modified by using vehicle miles traveled (VMT) as the primary metric in identifying transportation impacts. These comments are acknowledged, and VMT is the metric of transportation impact analysis utilized in this EIR.
- A commenter asked if the CEQA Guidelines relating to SB 743 will be applied equally to Diamond Bar as compared to areas where there is less impact from major routes. In response to this inquiry, the SB 743 compliance analysis in the EIR addresses the type of trip, length of trip and number of trips. Congestion and cut-through traffic in the analysis affect trip routing which is reflected in the analysis. However, SB 743 analysis in the EIR compares Diamond Bar to itself with and without the proposed General Plan land use changes, and other cities with less congestion are compared to their own region, resulting in equal application of CEQA in each city.
- There were requests that the EIR should go further in assessing traffic, noting that traffic calming is not the solution. Several major intersections that are currently saturated during peak hours and requests consideration of these locations. Any future projects that further increase traffic flow and volume at any of these intersections and routes should consider cut-through traffic from SR 57 and SR 60 and ensure that traffic flow is not negatively impacted as compared to traffic flow on these Diamond Bar streets and intersections. The response to these comments is that SB 743 has determined that VMT is the primary metric in identifying transportation impacts, not delay or congestion. Congestion was addressed as part of the General Plan but not the EIR.
- The California Department of Transportation (Caltrans) acknowledged the challenges in alleviating congestion and requested a focus on complete streets and TDM strategies to promote alternatives to driving and managing parking. Good traffic engineering design at ramp terminal intersections includes accommodations for bicycles and pedestrians. Caltrans notes that road diets are proven safety countermeasures, residential development

near freeways should include sound walls, and recommends planning for increased transit facilities. The Proposed Project reflects these transportation planning principles in that complete streets and TDM strategies are included in the General Plan Goals and Policies and are addressed in the EIR.

- The City of Chino Hills reviewed the land use changes near Diamond Bar Boulevard and SR-60/57 Interchange and documented that the changes seem reasonable. This comment is acknowledged; moreover, land use changes are addressed in greater detail in the EIR.
- The Southern California Association of Governments (SCAG) is the Regional Transportation Planning Agency and is responsible for preparation of the Regional Transportation Plan (RTP) and Sustainable Communities Strategy (SCS) pursuant to SB 375. SCAG summarized 2016 RTP/SCS goals, which seek to improve mobility, promote sustainability, facilitate economic development, and preserve the quality of life for residents in the region. The long-range visioning plan balances future mobility and housing needs with goals for the environment, the regional economy, social equity and environmental justice, and public health. The General Plan aligns with SCAG's mission in that the RTP/SCS goals are utilized in the General Plan Goals and Policies and are addressed in the EIR.
- Hills for Everyone (HFE) supports a Climate Action Plan to reduce VMT and help meet SCAG GHG targets and California Air Resource Board (CARB) statewide targets for SB 375. HFE asked how the General Plan will address level of service LOS, load and capacity for existing roads; reduce wait times at traffic signals; incorporate more pedestrian and bike-friendly amenities; reduce the use of vehicular transportation; and review shared parking ratios. The General Plan addresses LOS and roadway capacity from a high-level land use growth perspective and maintains a LOS D standard at intersections and roadways in the City. Some roadways were exempted from the policy. The General Plan also considers the adaptive signal timing program that will reduce vehicle delay on coordinated corridors and improve congestion Citywide. As noted above, complete streets and TDM policies were considered as goals and policies in the General Plan and were addressed in the EIR.
- There are life and safety concerns when traffic is gridlocked and emergency vehicles are unable to navigate through the area. Opinions include that LOS C should be the minimum acceptable standard. Future development will further exacerbate the saturated condition. Congestion on SR-60 and SR-57 causes the worst congestion in Diamond Bar. Air quality will be worsened as long as there are gasoline and diesel-powered vehicles in stop-and-go traffic. Diamond Bar has not felt the full impact of the build-out along Grand Avenue in the City of Industry or the effects on the environment and traffic from any developments in Tres Hermanos Ranch. CEQA in Diamond Bar should take into account the City of Industry. The concept of pedestrian-friendly communities is not practical when it is a mile or more to go shopping. The buildout of the General Plan utilizes the SCAG model which also includes buildout growth of the surrounding SCAG region. VMT analysis was conducted which considers the buildout of neighboring cities and the effect on Diamond Bar in the EIR. Pedestrian-friendly community strategies are prescribed in the General Plan Goals and Policies in order to minimize the transportation impact in the EIR.
- Additional car trips that will be generated by high-density housing and commercial in TOD raise concerns about increasing exposure to pollution, noise, traffic congestion and hazards to safety. Studies need to be conducted on existing and future impacts of TOD development

on the area's congested roadways, intersections and parking. The study should also account for the impacts of the newly opened freeway onramps/off-ramps by Lemon Avenue. There should be traffic calming features to prevent accidents near the school. Developing the golf course needs to be addressed at congested intersection Grand Avenue at Golden Springs Drive. The buildout of the General Plan utilizes the SCAG model which also includes inclusion of the TOD land uses and the future roadway network such as Lemon Avenue interchange.

- Other public comments included accounting for induced travel concurrent with freeway widening projects, to prevent cut-through traffic in the City, to relieve congestion in the City, concerns over traffic collisions, and concerns over school traffic. The VMT assessment includes use of the SCAG model which is sensitive to induced travel when utilized within the limits of the model. The General Plan does not propose the widening of any roads or any new facilities that are not already planned as part of the 2016 SCAG RTP/SCS and therefore no modifications were applied to the roadway network that would be anticipated to induce travel in the analysis.

# 12.1 Environmental Setting

## PHYSICAL SETTING

The City of Diamond Bar lies in Los Angeles County. It borders Walnut to the north-west, City of Industry to the west, Pomona to the northeast, Chino Hills to the south-east, and Rowland Heights to the south-west. The transportation system in Diamond Bar includes diverse elements including roadway systems and bicycle systems, as well as a public transit system providing both local and regional service. A field assessment was conducted in September 2016 to further assist in the existing conditions evaluation. The transportation elements within the City are discussed in greater detail below.

### Travel Characteristics

An analysis of American Community Survey (ACS) data available from the US Census Bureau provides information related to the travel trends and behavior amongst workers in Diamond Bar and surrounding areas. According to the ACS 2014 5-Year estimates, 79 percent of commuters drive alone in Diamond Bar, compared to 74 percent in Los Angeles County and California and 76 percent in the United States (Table 3.12-1: Commuter Mode Share in Diamond Bar and Surrounding Areas). Comparatively, 10 percent of workers in Diamond Bar carpooled, which approximately consistent with the County average. Transit, walking, and biking are all approximately 5 percent or less of commute trips. Approximately seven percent of workers work from home, which is slightly higher than local and regional rates.

**Table 3.12-1: Commuter Mode Split In Diamond Bar and Surrounding Areas**

| *Commute Mode Choice* | *Diamond Bar* | *Los Angeles County* | *California* | *United States* |
|---|---|---|---|---|
| Single Occupant Auto | 79.2% | 73.7% | 73.6% | 76.4% |
| Carpool | 9.7% | 9.6% | 10.4% | 9.2% |
| Public Transit | 3.1% | 6.3% | 5.2% | 5.1% |
| Bicycling/Walking | 0.7% | 3.6% | 3.7% | 3.3% |
| Other Means | 0.7% | 1.5% | 1.5% | 1.2% |
| Work at Home | 6.6% | 5.3% | 5.6% | 4.7% |

*Source: American Community Survey (2013-2017).*

Census data also indicates that commute travel times for Diamond Bar residents are shorter than for the rest of Los Angeles County. Eight percent of Diamond Bar residents travel less than 10 minutes to work, versus four percent of countywide residents. Also, 33 percent of Diamond Bar residents travel less than 20 minutes, which is higher than the rest of the County (24 percent). Twelve percent of Diamond Bar residents take 60 or more minutes to reach work, compared to 19 percent of overall County residents.

Another aspect of travel behavior relates to the propensity for residents to either remain within their community or travel outside of their community for their work trips. One data source for this information is the Longitudinal Employer Household Dynamics (LEHD). According to the LEHD database, 6.3 percent of Diamond Bar residents worked in the City and 93.7 percent worked elsewhere in 2015 (the most recent year available). Table 3.12-2 summarizes that this is consistent with local rates of surrounding cities. The percentage of persons living in Diamond Bar who also work in Diamond Bar has remained consistently between 6.3 percent and 6.9 percent from 2005 to 2015. The percentage of persons living in Diamond Bar but working elsewhere has remained above 93.7 percent during the same span of time.

**Table 3.12-2: Percentage of Residents Who Work in City of Residence (Diamond Bar and Surrounding Area)**

| | *Work in City of Residence* |
|---|---|
| Diamond Bar | 6.3% |
| Walnut | 6.3% |
| Pomona | 10.6% |
| Chino Hills | 5.1% |
| Rowland Heights | 5.8% |

*Source: American Community Survey 2015.*

## Motorized Transportation Network

### *Roadway Classifications*

The City of Diamond Bar is a primarily suburban community with well-developed traffic patterns. The street system consists of a network of local roadways that connect to major roadways in a typical residential street pattern with many loops and cul-de-sacs. The roadway system comprises five functional systems: major arterial, secondary arterial, boulevard, collector, and local streets. The classification of streets is based on a functional hierarchy defined by the number of travel lanes, roadway width (curb to curb), right-of-way (public property line to public property line), and traffic volumes. The network of arterial, collector, and local streets provide connectivity within the City of Diamond Bar and to neighboring communities.

Regional connectivity to the City is provided by California State Route 57 (SR-57) and California State Route 60 (SR-60).

The existing Circulation Element of the Diamond Bar General Plan designates five different roadway types in the City. Functional classification refers to how a road accommodates two characteristics: first, the extent to which the roadway prioritizes the through movement of traffic and second, the level of access provided to adjacent properties. Based on these generalized characteristics, roadways often vary in terms of right-of-way, roadway width, number of lanes, intersection and traffic signal spacing, speed, and other factors. The functional classification is assigned to a particular roadway based on the criteria above. Table 3.12-3 below identifies these roadway types for the City and provides the general geometric cross-sectional characteristics of each.

**Table 3.12-3: Diamond Bar General Plan Roadway Functional Classifications**

| *Roadway Type* | *Description of Typical Street Cross Section Characteristics* |
|---|---|
| Arterial Street (Major and Secondary) | A major arterial street generally features four or six lanes for through traffic and may contain additional lanes to accommodate turning movements, parking, and bicycle traffic, all within a right-of-way of 100-120 feet. A secondary arterial generally features four lanes for through traffic and may also contain additional lanes, all within a right-of-way of 60-100 feet. |
| Boulevards | Boulevards are a type of arterial designed to connect major destinations within the City, and are highly visible and aesthetically landscaped with shade trees and wide sidewalks. |
| Collector Streets (Business and Residential) | Collector streets serve business or residential land uses and are generally two or four lane roadways. |
| Local Residential Streets | A local residential street is a two-lane roadway with no median and is intended to serve solely local traffic. |

*Source: Diamond Bar General Plan Circulation Element, 2019.*

The following descriptions categorize the roadways within the City of Diamond Bar.

### Freeways

State Route 57 – An eight-lane portion of SR-57 (Orange Freeway) runs along the City's western boundary and through its southern boundary and provides the City with important inter-city and inter-regional connectivity. SR-57 is connected to the City via interchanges on Diamond Bar Boulevard, Pathfinder Road, and Sunset Crossing Road.

State Route 60 – A ten-lane portion of SR-60 (Pomona Freeway) runs from the northern boundary and along the City's western boundary and provides the City with important inter-city and inter-regional connectivity. SR-60 is connected to the City via interchanges on Golden Springs Drive, Brea Canyon Road, Grand Avenue, and Diamond Bar Boulevard, and Lemon Avenue.

Please note that there is no freeway interchange connection from westbound SR-60 to northbound SR-57 or in the opposite direction. The locally designated Sunset Crossings Road and a segment of Diamond Bar Boulevard functions as the freeway-to-freeway connector for this direction.

### Boulevards

Diamond Bar Boulevard – Diamond Bar Boulevard is designated as a boulevard and provides two travel lanes and a bicycle lane in each direction with a raised, landscaped median, left turn lanes, and a speed limit that varies between 40 to 45 mph. Diamond Bar Boulevard runs through both residential and commercial land uses. West of SR-57, this roadway continues as Brea Canyon Cutoff Road, a secondary arterial roadway.

Golden Springs Drive (East of SR-57) – East of SR-57, Golden Springs Drive is designated as a boulevard. It provides two travel lanes in each direction with a raised, landscaped median between SR-57 and Grand Avenue only, left turn lanes, and a speed limit that varies between 40 to 45 mph. There is also a bicycle lane in each direction that begins just east of Adel Avenue. Residential and commercial land uses are predominantly present around Golden Springs Drive.

Grand Avenue (between Montefino Avenue and Cleghorn Drive) – Grand Avenue is designated as a boulevard on this 2,000-foot segment of commercial uses. This segment provides three travel lanes in each direction with a raised, narrow, landscaped median, left turn lanes, and a speed limit of 45 mph.

### Arterial Streets

Brea Canyon Road – Designated as a major arterial roadway north of Golden Springs Drive, Brea Canyon Road provides two to three travel lanes in each direction with a raised, landscaped median, left turn lanes, and a posted speed limit that varies between 40 to 45 mph. South of Golden Springs Drive, Brea Canyon Road is designated as a secondary arterial roadway that provides two travel lanes in each direction with a center turn lane and a posted speed limit that varies between 40 to 45 mph. Brea Canyon Road is primarily surrounded by commercial land uses north of Golden Springs Drive and residential land uses south of Golden Springs Drive.

Brea Canyon Cutoff Road – This roadway is designated as a secondary arterial and runs along the southwestern edge of the City. It provides two travel lanes in each direction with a center turn lane and a speed limit of 40 mph. Adjacent land uses are primarily open space and residential.

Chino Avenue – A very short segment of Chino Avenue that runs through Diamond Bar is designated as a secondary arterial roadway. It provides two travel lanes in each direction with left turn lanes and a posted speed limit of 50 mph. Residential land uses surround this portion of Chino Avenue.

Chino Hills Parkway – Chino Hills Parkway is designated as a major arterial roadway and provides two travel lanes in each direction with a raised median and a speed limit of 50 mph. It is surrounded by vacant hillsides within Diamond Bar.

Golden Springs Drive –West of SR-57, Golden Springs Drive is designated as a major arterial roadway with two travel lanes in each direction, a raised, landscaped median, left turn lanes, and a speed limit ranging from 40-45 mph. Residential and commercial land uses are predominantly present around Golden Springs Drive.

Grand Avenue (West of Montefino Avenue and East of Cleghorn Drive) – West of Montefino Avenue, Grand Avenue is designated as a major arterial roadway, adjacent to commercial uses and freeway. This segment provides two travel lanes in each direction with a raised, landscaped median, left turn lanes, and a speed limit of 45 mph. East of Cleghorn Drive, Grand Avenue is designated as a major arterial roadway, adjacent to residential uses. This segment provides two travel lanes in each direction with a raised, landscaped median, left turn lanes, and a speed limit of 45 mph.

Lemon Avenue (north of Golden Springs Drive) – This short segment of Lemon Avenue runs north of Golden Springs Drive to the edge of the City and is designated as a major arterial roadway. It provides two travel lanes in each direction with a raised, landscaped median, left turn lanes, and a speed limit of 40 mph. This roadway includes access to the SR-60 freeway by the recently constructed interchange. Adjacent land uses are primarily industrial.

Temple Avenue – The south side of Temple Avenue between Diamond Bar Boulevard and Golden Springs Road is within the City of Diamond Bar and the north half is within the City of Pomona. In both cities this street is designated as a major arterial. This segment of Temple Avenue contains two travel lanes in each direction which are separated by a landscaped median. There is no parking allowed on this stretch of Temple Avenue and the posted speed limit is 45 mph.

Pathfinder Road – Pathfinder Road is designated as a major arterial roadway running through residential land uses. Two travel lanes are provided in each direction. Most of this segment has a center turn lane, left turn lanes, and no median. The speed limit is 40 mph.

### Collector Streets

Sunset Crossing Road (East of Prospectors Road) – Sunset Crossing Road east of SR-57 is a two-lane collector street with street parking and a 25 mph speed limit running through primarily residential land uses with some commercial uses.

Lycoming Street – Lycoming Street is a two-lane collector street with street parking and a 25 mph speed limit running through primarily residential land uses with some commercial uses.

Prospectors Road – Prospectors Road is a two-lane collector street with street parking and a 25 mph speed limit running through residential land uses.

Walnut Drive – Walnut Drive is a four-lane collector street with a 40 mph speed limit running through primarily commercial and industrial land uses.

Copley Drive/Gateway Center Drive – Copley Drive is a two-lane collector street with a two-way turn lane and a 35 mph speed limit running through commercial and institutional land uses. North of Bridgegate Drive, Copley Drive turns into Gateway Center Drive.

Bridgegate Drive/Valley Vista Drive – Bridgegate Drive/Valley Vista Drive is a two-lane collector street with a two-way turn lane, street parking, and a 35 mph speed limit running through commercial and institutional land uses.

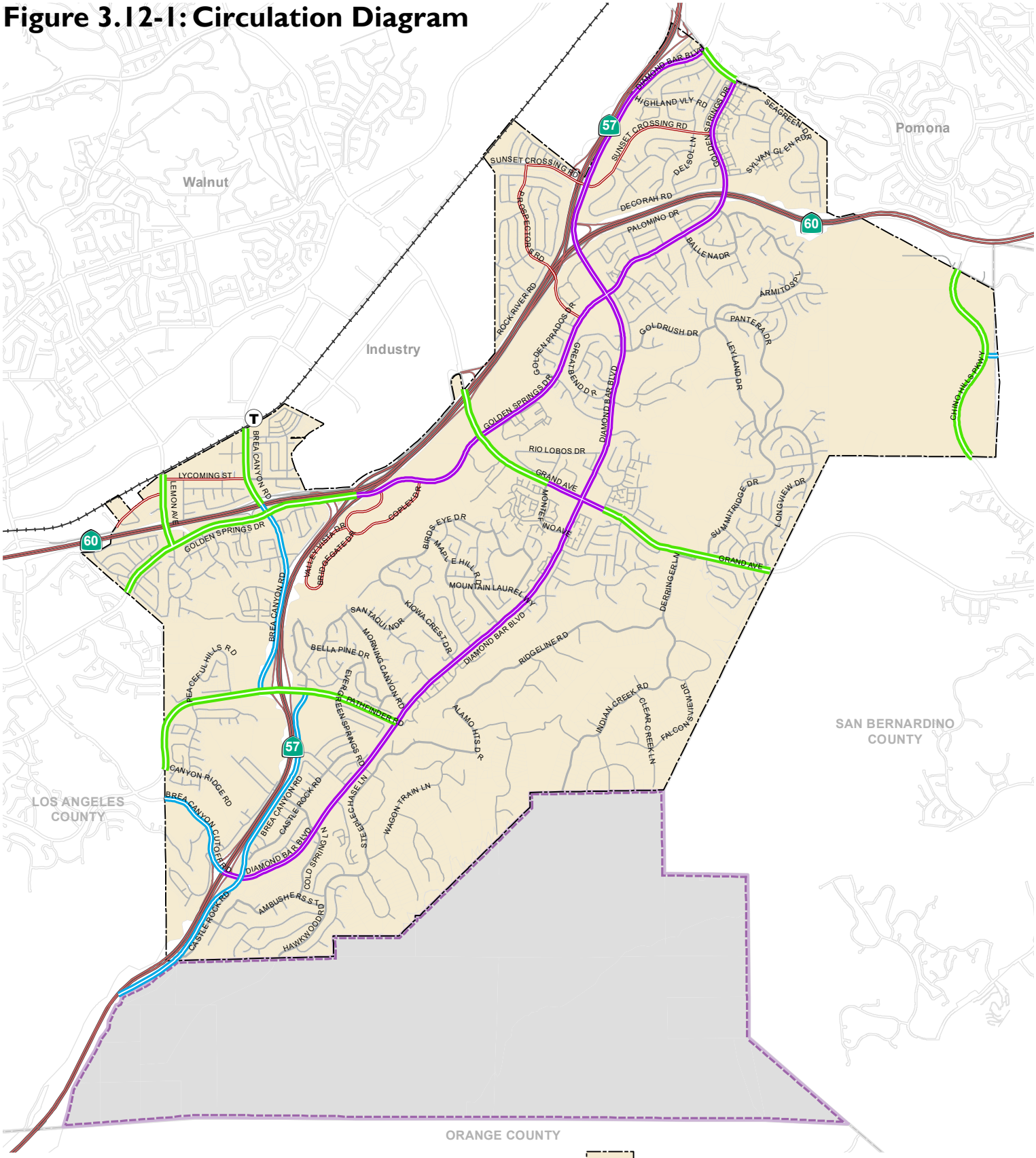
Figure 3.12-1 shows the Diamond Bar roadway network by functional type. Table 3.12-4 outlines the classified facilities within the City.

**Table 3.12-4: Diamond Bar Roadways**

| *Classifications* | *Roadways* |
|---|---|
| Boulevards | Diamond Bar Boulevard<br>Golden Springs Drive (east of SR-57)<br>Grand Avenue (between Montefino Avenue and Cleghorn Drive) |
| Arterial Streets (Major and Secondary) | Chino Hills Parkway<br>Golden Springs Drive (west of SR-57)<br>Grand Avenue (west of Montefino Avenue and east of Cleghorn Drive)<br>Lemon Avenue (north of Golden Springs Drive)<br>Pathfinder Road<br>Brea Canyon Cutoff |
| Collector Streets | Sunset Crossing Road (east of Prospectors Road)<br>Lycoming Street<br>Prospectors Road<br>Walnut Drive<br>Copley Drive<br>Gateway Center Drive<br>Valley Vista Drive<br>Bridgegate Drive |
| Local Streets | All others |

*Source: Diamond Bar General Plan Circulation Element, 2019.*

# Figure 3.12-1: Circulation Diagram




*Source: Fehr & Peers, 2019*
*City of Diamond Bar, 2019; Dyett & Bhatia, 2019*

## Bicycle Facilities

The California Department of Transportation's (Caltrans) *Highway Design Manual* (HDM) (Chapter 1000: Bikeway Planning and Design) and California Assembly Bill 1193 codify four distinct classifications of bikeways. Bikeways offer various levels of separation from traffic based on traffic volume and speed, among other factors. Bikeway classifications and existing facilities of each type are described below.

### Class I Bikeway (Bike Path)

Class I bicycle facilities are bicycle trails or paths that are off-street and separated from automobiles. They are a minimum of eight feet in width for two-way travel and include bike lane signage and designated street crossings where needed. A Class I Bike Path may parallel a roadway (within the parkway) or may be a completely separate right-of-way that meanders through a neighborhood or along a flood control channel or utility right-of-way.

### Class II Bikeway (Bike Lane)

Class II bicycle facilities are striped lanes that provide bike travel and can be either located next to a curb or parking lane. If located next to a curb, a minimum width of five feet is recommended. However, a bike lane adjacent to a parking lane can be four feet in width. A striped buffered area may also be included between the bike lane and the vehicular travel lane to create further separation between the two travel modes. Bike lanes are exclusively for the use of bicycles and include bike lane signage, special lane lines, and pavement markings.

### Class III Bikeway (Bike Route)

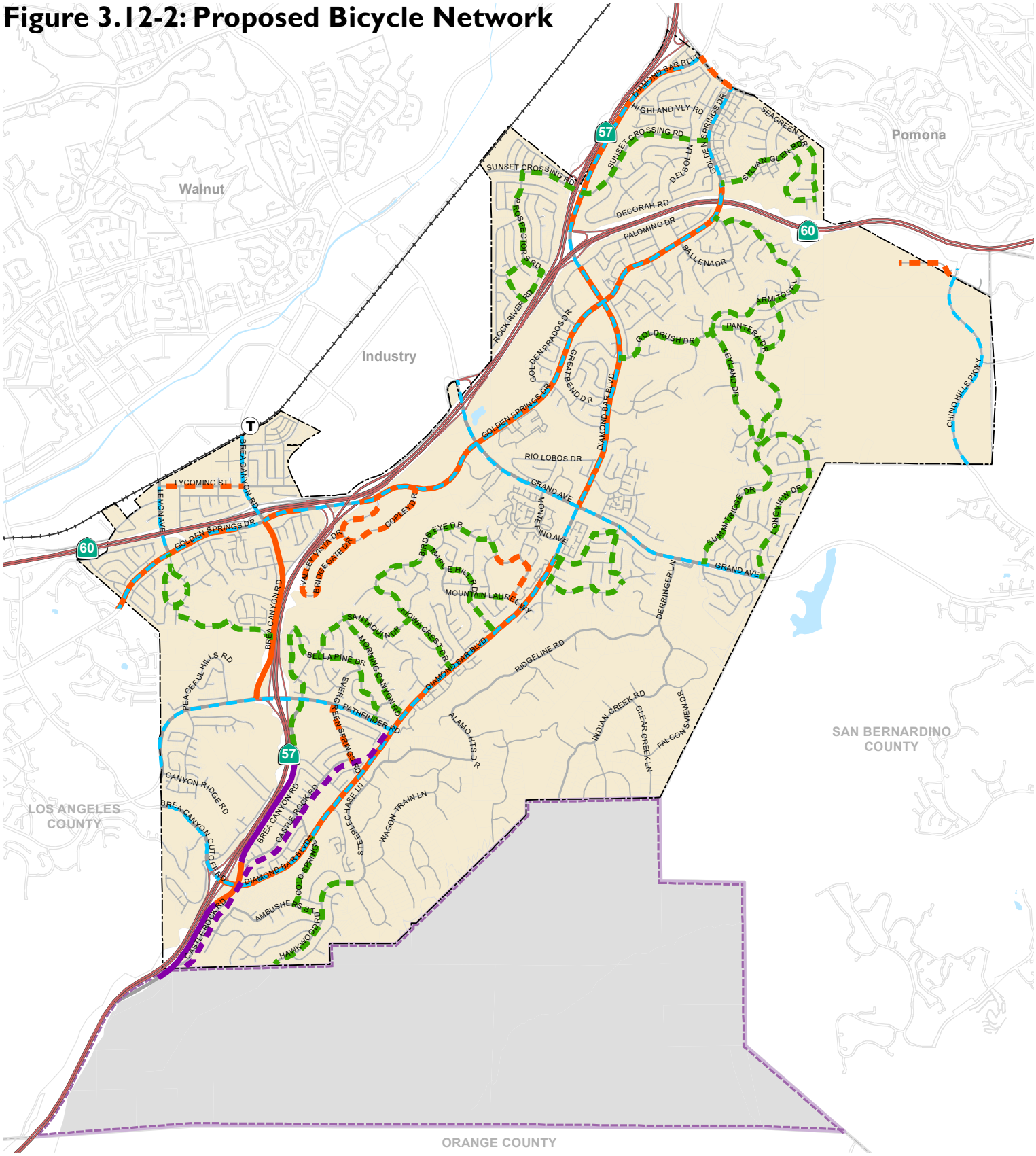
Class III Bikeways are streets that provide for shared use by motor vehicles and bicyclists. While bicyclists have no exclusive use or priority, signage both by the side of the street and stenciled on the roadway surface alerts motorists to bicyclists sharing the roadway space and denotes that the street is an official bike route.

### Class IV Bikeway (Separated Bikeway)

Class IV bicycle facilities, sometimes called cycle tracks or separated bikeways, provide a right-of-way designated exclusively for bicycle travel adjacent to a roadway and are protected from vehicular traffic via separations (e.g. grade separation, flexible posts, inflexible physical barriers, on-street parking). California Assembly Bill 1193 (AB 1193) legalized and established design standards for Class IV bikeways in 2015.

Bicyclists enjoy an extensive system of dedicated facilities along Diamond Bar's roadways. These facilities consist Class I, II and III facilities and are shown on Figure 3.12-2. Proposed Class I, II, III and IV facilities are also shown on Figure 3.12-2.

# Figure 3.12-2: Proposed Bicycle Network




*Source: Fehr & Peers 2019;*
*City of Diamond Bar, 2019; Dyett & Bhatia, 2019*

### Pedestrian Facilities

The suburban, tract housing layout, with major through streets comprising a notable portion of the City, has resulted in an automobile dominant community. Six factors that affect walkability and the pedestrian experience in the City at large have been analyzed, including:

Sidewalk Continuity – Communities are more walkable if sidewalks do not end abruptly and are present on the entire segment and both sides of a roadway. This is especially important for the mobility-impaired or those pushing small children in strollers.

Sidewalk Conditions - This refers to the physical condition of sidewalk surfaces. Sidewalks that are broken or cracked can deter walkability and pose a safety hazard, particularly for the mobility impaired, such as those in wheelchairs and persons using walkers or strollers.

Shading - Persons are more inclined to walk in areas where there is shade present, particularly in Southern California with its relatively warm weather and limited rainfall as compared to other locations. Additionally, shade trees create an aesthetic value that is pleasing to the pedestrian.

Grade - Persons are more inclined to walk in areas that are relatively flat or have limited grade changes.

Amenities - All else being equal, persons are more inclined to walk in areas that are interesting environments with shopping, retail, restaurants, and other similar uses. Pedestrian-friendly amenities include street furniture, attractive paving, way-finding signage, enhanced landscaping, and improved lighting.

Buffers - A more walkable environment is one in which there is some degree of separation between the pedestrian and the motorist. This typically includes wider sidewalks, street parking and sidewalk bulb-outs at intersections where feasible. Crosswalks with appropriate signage serve as an important buffer as well.

A general evaluation of the pedestrian environment in Diamond Bar is provided in Table 3.12-5 below.

**Table 3.12-5: Existing Pedestrian Facilities**

| *Criteria* | *Evaluation* |
|---|---|
| Sidewalk Continuity | Most major roadways in Diamond Bar have continuous sidewalks on one or both sides. Most residential streets also have continuous sidewalks on both sides of the street. |
| Sidewalk Conditions | Throughout the City of Diamond Bar, sidewalks are generally in good condition, free of cracks, fissures, or uplift. While there are some examples of cracked pavement, no conditions were observed that would inhibit safe movement. Sidewalks are generally wide enough to accommodate multiple users, though in some cases there are obstructions due either to various utility boxes or overgrown landscaping. |
| Shading | Generally, shading is limited throughout Diamond Bar. There are some segments containing trees along the sidewalks, but these tend to provide very little shade. Some shade is provided by trees on private properties adjacent to sidewalks. In many cases, there is no shading. |
| Grade | Diamond Bar is a hillside community and therefore several of the major arterials in Diamond Bar have slopes. In addition, residential streets often have significant grade, which may be a barrier to walking. |
| Amenities Offered | Because the City of Diamond Bar is a largely residential city, most roadways provide very little in the way of amenities that serve or appeal to pedestrians. There are some gas stations, strip mall retail, and restaurants at some intersections, but these are typically designed to be oriented towards the automobile and are not generally intended to attract pedestrian clientele. |
| Buffers | Parking is generally not permitted along the major thoroughfares of Diamond Bar. Buffers that do exist largely consist of bike lanes and some landscaping, such as trees or parkways, between sidewalks and automobile travel lanes. Bike lanes on Diamond Bar Boulevard are especially wide, in some cases nearly as wide as a vehicle lane, providing a buffer between sidewalks and moving vehicle traffic. |

*Source: Fehr & Peers, 2016.*

## Public Transportation System

Public transit in the City of Diamond Bar is provided through local bus service, commuter rail service, and demand-responsive paratransit service. City residents are eligible to receive a 20% subsidy on transit passes purchased online or at City Hall.

The City of Diamond Bar is served by Foothill Transit. As of 2019, four Foothill Transit routes provide service to the City: 286, 482, 853, and 854.

*Foothill Transit*

195 (Pomona) – Line 195 runs through Pomona and along the northern edge of Diamond Bar on Temple Avenue. This line provides service seven days a week. Line 195 runs from approximately 5:30 AM to 8:30 PM on weekdays and 6:15 AM to 7:00 PM on weekends. Headways are approximately 1 hour.

286 (Pomona to Brea) – Line 286 runs from Pomona to Brea and connects Diamond Bar to Pomona and Brea. This line passes through Diamond Bar via SR-57 and Diamond Bar Boulevard and provides service seven days a week. Line 286 runs from approximately 6:00 AM to 11:00 PM on weekdays and 7:30 AM to 8:30 PM on weekends. Headways are approximately 1 hour.

482 (Pomona to Puente Hills) – Line 482 serves Diamond Bar and runs from Pomona to Puente Hills and connects Diamond Bar to Walnut and Rowland Heights. Line 482 within Diamond Bar travels along Golden Springs Drive, Brea Canyon Road, Copley Drive, and Diamond Bar Boulevard. This line provides service seven days a week, from approximately 4:00 AM to 1:00 AM on weekdays and 5:30 AM to 12:30 AM on weekends. Headways are approximately 30 minutes.

493 (Industry to Los Angeles) – Line 493 runs from Industry to Los Angeles with service through Diamond Bar along Brea Canyon Road and Golden Springs Drive. This line provides service on weekdays, from approximately 4:30 AM to 9:30 AM and 2:15 PM to 8:00 PM. Headways range from approximately 10 to 30 minutes. This line does not operate on weekends.

495 (Industry to Los Angeles Express) – Line 495 runs from the Industry Park & Ride, with connection to Lines 482 and 493, to Los Angeles. This line provides service on weekdays from approximately 4:30 AM to 9:30 AM in the westbound direction and from approximately 2:30 PM to 8:00 PM in the eastbound direction. Headways are approximately 20 minutes. This line does not operate on weekends.

497 (Chino to Los Angeles) – Line 497 runs from Chino to Los Angeles with service through Diamond Bar on SR-60. This line provides service on weekdays from approximately 4:30 AM to 9:30 AM in the westbound direction and from approximately 2:30 PM to 8:30 PM in the eastbound direction. Headways are approximately 15 minutes. This line does not operate on weekends.

853 (Diamond Bar) – Line 853 serves Diamond Bar and runs from Copley Drive & Golden Springs Drive to Diamond Ranch High School via Golden Springs Drive and Avenue Rancheros. Line 853 runs Monday to Thursday from approximately 6:45 AM to 8:00 AM and 2:30 PM to 4:00 PM. Headways are approximately 30 minutes in the morning. On Fridays, Line 853 runs from approximately 8:00 AM to 9:00 AM and 2:30 PM to 4:00 PM. Headways are approximately 10 minutes. This line does not operate on the weekends.

854 (Diamond Bar) – Line 854 serves Diamond Bar and runs from Copley Drive & Golden Springs Drive to Diamond Ranch High School via Golden Springs Drive, Diamond Bar Boulevard, and Avenue Rancheros. Line 854 runs Monday to Thursday in the morning from approximately 7:00 AM to 8:00 AM. Headways are approximately five minutes. On Fridays, Line 854 runs in the morning from approximately 8:00 AM to 8:45 AM. Headways are approximately ten minutes. Line 854 runs Monday to Friday in the afternoon from approximately 3:00 PM to 4:00 PM. Headways are approximately five minutes. This line does not operate on the weekends.

### *Commuter Rail Service*

Diamond Bar is also served by the Metrolink Riverside Line along the northwestern boundary of the City at the Industry Metrolink Station, located east of the intersection of Brea Canyon Road at Currier Road. This line runs from Downtown Riverside to Union Station in Downtown Los Angeles and provides service Monday to Friday. There are six inbound trains that run from approximately 5:30 AM to 4:30 PM and six outbound trains that run from 2:00 PM to 8:00 PM. Headways are approximately 30 minutes during the peak period. The nearest stations are the Montebello/Commerce station to the west and the Pomona – Downtown station to the east.

### *Paratransit Service*

Unlike fixed-route transit service, paratransit service does not follow fixed routes or schedules. Paratransit can consist of vans or mini-buses that provide on-demand curb-to-curb service from any origin to destination within the service's specified service area. Qualifying residents can utilize Access Services. Access Services is a curb-to-curb paratransit service serving Los Angeles County residents unable to use regular bus service.

Access Services provides next day transportation service within ¾ of a mile on either side of any fixed route bus operated by the Los Angeles County public fixed route bus operators. Current fares are distance based and range from $2.75 to $3.50 for each one-way trip.

Diamond Bar residents can also use the City's Diamond Ride Program, which is a subsidized curb-to-curb cab service program designed to supplement travel means for persons with disabilities and those age 60 and older residing in Diamond Bar. Within the City limits, the one-way fare is $.50. However, the program also offers subsidized fares to medical facilities within an approximately five-mile radius beyond the City limits, which includes Pomona Valley Hospital Medical Center and St. Jude Hospital/Medical Center in Fullerton.

### *Transit Facilities*

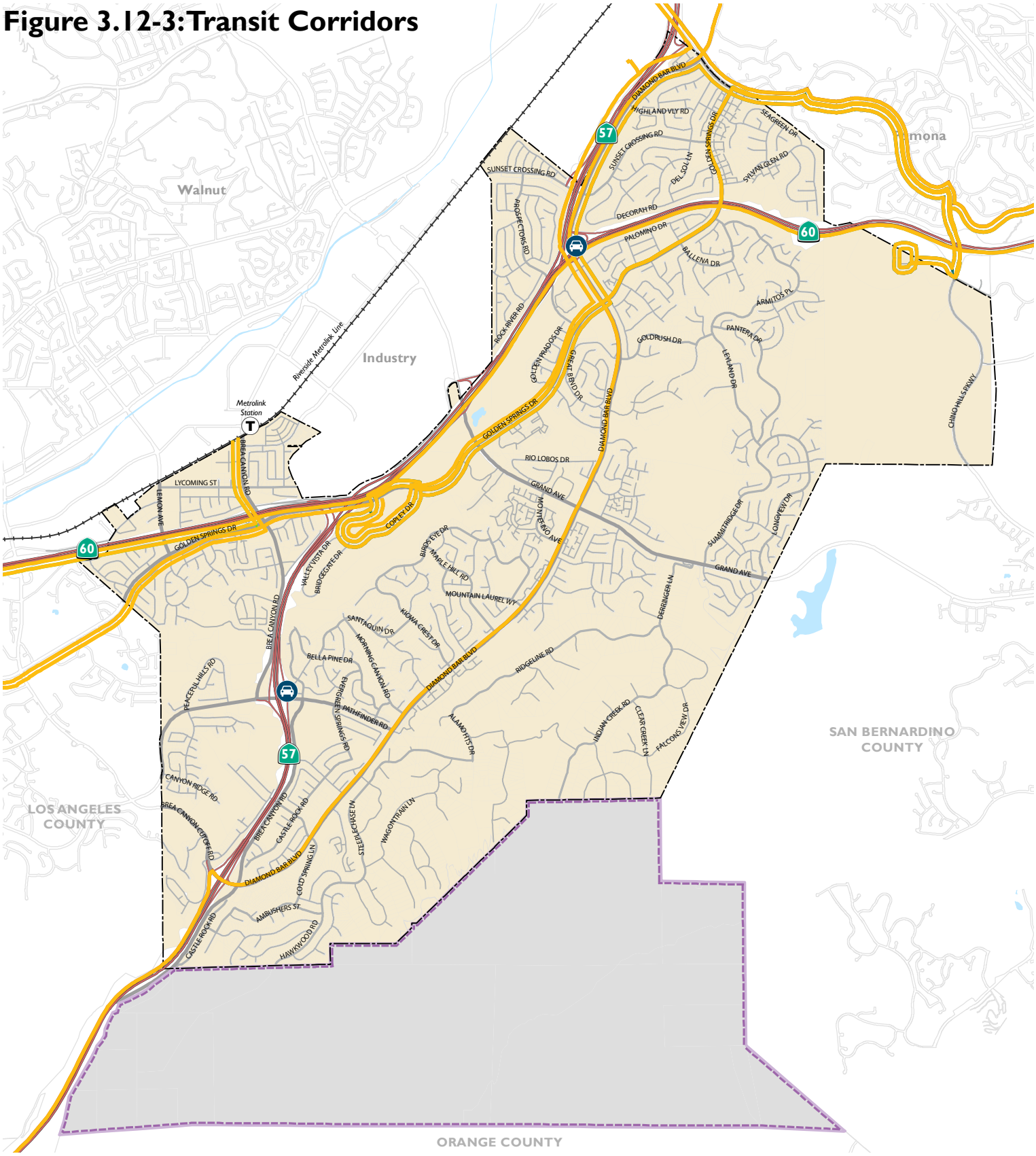
Transit facilities in Diamond Bar consist of bus stops for Foothill Transit buses along Diamond Bar Boulevard, Golden Springs Drive, and other roads. The Metrolink station in City of Industry can be accessed via Brea Canyon Road. A significant portion of the bus stops in the City have a bench or a shaded bus shelter. In addition, commuters can utilize two Caltrans park-and-ride lots on Diamond Bar Boulevard.

**Table 3.12-6: Summary of Transit Services in Diamond Bar**

| *Operator* | *Line* | *Characteristics* |
|---|---|---|
| Foothill Transit | *Line 195* | T: Mon-Fri, 5:30 AM to 8:30 PM<br>Weekends, 6:15 AM to 7:00 PM<br>Headways: 60 min |
| | *Line 286* | T: Mon- Fri, 6:00 AM to 11:00PM<br>Weekends, 7:30 AM to 8:30 PM<br>Headways: 60 min |
| | *Line 482* | T: Mon-Fri, 4:00 AM to 1:00 AM<br>Weekends, 5:30 AM to 12:30 AM<br>Headways: 30 min |
| | *Line 493* | T: Mon- Fri, 4:30 AM to 9:30 AM and 2:15 PM to 8:00 PM<br>Headways: 10 to 30 min<br>No Weekend or Holiday Service. |
| | *Line 495* | T: Mon- Fri, 4:30 AM to 9:30 AM and 2:30 PM to 8:00 PM<br>Headways: 20 min<br>No Weekend or Holiday Service. |
| | *Line 497* | T: Mon- Fri, 4:30 AM to 9:30 AM and 2:30 PM to 8:30 PM<br>Headways: 15 min<br>No Weekend or Holiday Service. |
| | *Line 853* | T: Mon-Thurs, 6:45 AM to 8:00 AM and 2:30 PM to 4:00 PM<br>Headways: 30 min<br>Fri, 8:00 AM to 9:00 AM and 2:30 PM to 4:00 PM<br>Headways: 10 min<br>No Weekend or Holiday Service. |
| | *Line 854* | T: Mon-Thurs, 6:45 AM to 8:00 and 3:00 PM to 4:00 PM<br>Headways: 5 min<br>Fri, 8:00 AM to 8:45 AM and 3:00 PM to 4:00 PM<br>Headways: 10 min in AM, 5 min in PM<br>No Weekend or Holiday Service. |
| Metrolink | Riverside Line<br>Trips between Downtown Riverside and Downtown LA | T: Mon- Fri, 5:30 AM to 4:30 PM service to LA, 2:00 PM to 8:00 PM service to Riverside<br>Headway: 30 min |
| Paratransit Service | Access Service<br>Diamond Ride | Trips within LA County<br>Trips within Diamond Bar and medical facilities within a five-mile radius |

*Sources: Metrolink, Foothill Transit, City of Diamond Bar, 2019.*

# Figure 3.12-3: Transit Corridors




*Source: City of Diamond Bar 2019; Dyett & Bhatia, 2019*

## Goods Movement

Goods movement plays an important role in both the circulation network and the economy of a city such as Diamond Bar. Often, it can be difficult to balance accommodating trucks and other vehicles without impeding other modes or the well-being of residents of the City.

According to the current General Plan, designated truck routes in the City of Diamond Bar consist of Lemon Avenue north of Golden Springs Drive, Golden Springs Drive between Lemon Avenue and Brea Canyon Road, Brea Canyon Road north of Golden Springs Drive, Diamond Bar Boulevard between SR-60 and Sunset Crossing Road, and Sunset Crossing Road between Diamond Bar Boulevard and SR-57. The Surface Transportation Assistance Act (STAA) of 1982 also defines a network of highways as truck routes. Large trucks are allowed to operate on these routes. Goods movement into and through Diamond Bar is currently accommodated by STAA-designated SR-57 and SR-60. The STAA also encourages local governments to accommodate trucks on roadways beyond those designated by the Act. These facilities are shown on Figure 3.12-4.

## Air Transportation

There are no aviation facilities within the City of Diamond Bar. The closest facilities are the Ontario International Airport in Ontario approximately 16 miles east, Chino Airport in Chino Hills 13 miles south-east, and the Brackett Field Airport in La Verne six miles north.

## Planned Improvements

Infrastructure improvements are planned for construction within the Planning Area over the planning horizon (through 2040), with major improvements described below.

### *SR-57/ SR-60 Confluence Project*

The SR-57/SR-60 Confluence Project at Grand Avenue is a multi-year/multi-phase project intended to improve traffic operations on Grand Avenue from Golden Springs Drive to the interchange and increase interchange capacity. This project aims to improve traffic operation, reduce traffic weaving, increase weaving distance, and improve safety at the SR-57/SR-60 confluence. The construction is underway and expected to finish at the end of 2022; the project includes the construction of facilities such as on-ramps, off-ramps, auxiliary lanes, a bypass connector, and a bridge.

### *Adaptive Signal Timing Program*

The City of Diamond Bar is implementing an adaptive signal timing program on major corridors throughout the City, including along Grand Avenue, Diamond Bar Boulevard and Golden Springs Drive. This program includes signal timing software and hardware improvements on signalized intersections throughout the corridors that will be more responsive to changes in traffic conditions than typical traffic signals or coordination, and will provide significant increases in capacity and relief in congestion.

Policies for Improvements

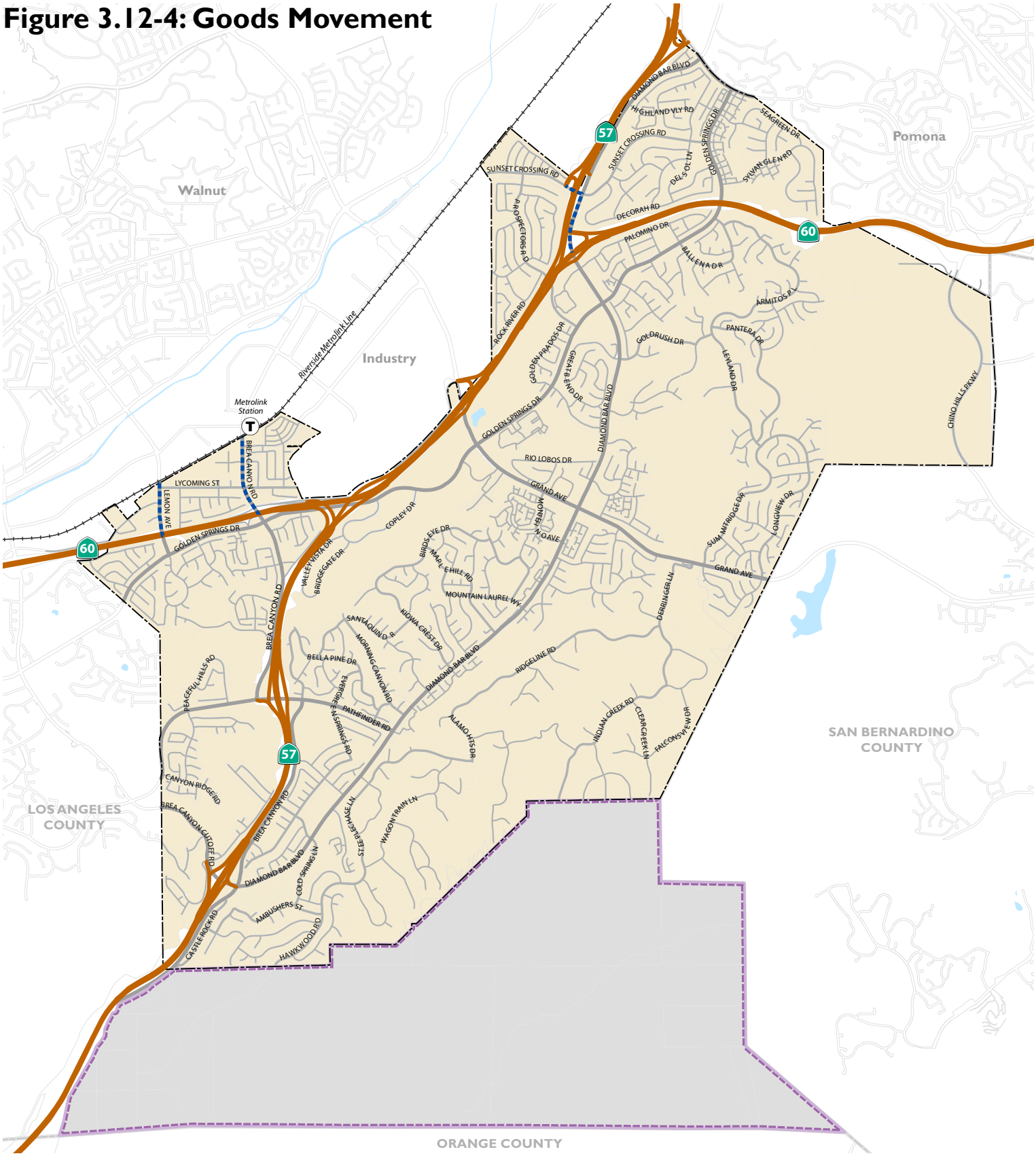
Capacity analysis at intersections and roadway segments throughout the City was conducted to determine which locations would require improvements in order to operate above the City's level of service (LOS) D standard. The following intersections and improvements were identified as needed by year 2040 and fit within the existing right-of-way:

- At Grand Avenue and Golden Springs Drive, install a westbound right-turn overlap phase
- At Diamond Bar Boulevard & Grand Avenue, restripe the eastbound right-turn lane to an eastbound shared through-right lane
- At Lemon Avenue and Golden Springs Drive, install a westbound right-turn overlap phase

The following locations are exempt from the City's LOS D standard as improvements were deemed infeasible due to lack of right-of-way, grade concerns, or total project construction costs:

- Brea Canyon Road south of Diamond Bar Boulevard
- Brea Canyon Road north of Diamond Bar Boulevard
- Grand Avenue west of Country View Drive

# Figure 3.12-4: Goods Movement




City-Designated Truck Routes

STAA-Designated Truck Routes

Highways

Ramps

Major Roads

Local Roads

Railroads

Water Features

City of Diamond Bar

Sphere of Influence

County Boundary

0 0.375 0.75 1.5 MILES

*Source: Fehr & Peers, 2019;*
*City of Diamond Bar, 2019; Dyett & Bhatia, 2019*

# REGULATORY SETTING

## Federal Regulations

### *Department of Transportation Act of 1966*

Section 4(f) of the Department of Transportation Act of 1966 specifies that a transportation project requiring the use of publicly owned parks, recreation areas, historic sites (including those owned privately), wildlife and waterfowl refuges, and many other types of resources can be approved only if the following findings can be made:

1. There is no prudent and feasible alternative to using that land; and
2. The program or project includes all possible planning to minimize harm to the park, recreation area, wildlife and waterfowl refuge, or historic site resulting from the use.

Each project proposal must include a Section 4(f) avoidance alternative (Caltrans 2011).

### *Surface Transportation Assistance Act (STAA)*

In 1982, the federal government passed the STAA. This act requires states to allow larger trucks on the "national network," which is composed of the interstate system plus the non-interstate federal-aid primary system. "Larger trucks" includes (1) doubles with 28.5-foot trailers, (2) singles with 48-foot semi-trailers and unlimited kingpin-to-rear axle distance, (3) unlimited length for both vehicle combinations, and (4) widths up to 102 inches. SR 99 is defined as an STAA route.

## State Regulations

### *California Department of Transportation (Caltrans)*

Caltrans is the primary state agency responsible for transportation issues. One of its duties is the construction and maintenance of the state highway system. Caltrans has established standards for street traffic flow and has developed procedures to determine if intersections require improvements. For projects that may physically affect facilities under its administration, Caltrans requires encroachment permits before any construction work may be undertaken. For projects that would not physically affect facilities, but may influence traffic flow and levels of services at such facilities, Caltrans may recommend measures to mitigate the traffic impacts of such projects.

### *California Transportation Commission (CTC)*

The CTC consists of nine members appointed by the California Governor. CTC is responsible for the programming and allocating of funds for the construction of highway, passenger rail, and transit improvements throughout the state. CTC is responsible for adopting the State Transportation Improvement Program and the State Highway Operation and Protection Program.

### *Assembly Bill (AB) 32*

With AB 32, the Global Warming Solutions Act of 2006, the State of California committed itself to reducing greenhouse gas (GHG) emissions to 1990 levels by 2020. The California Air Resources Board (CARB) is coordinating the response to comply with AB 32.

In 2007, CARB adopted a list of early action programs that could be put in place by January 1, 2010. In 2008, CARB defined its 1990 baseline level of emissions, and by 2011 it completed its major rule

making for reducing GHG emissions. Rules on emissions, as well as market-based mechanisms like the cap and trade program, took effect in 2012.

On December 11, 2008, CARB adopted its Proposed Scoping Plan for AB 32. This scoping plan included the approval of Senate Bill (SB) 375 as the means for achieving regional transportation related GHG targets. SB 375 provides guidance on how curbing emissions from cars and light trucks can help the state comply with AB 32.

### *California Complete Streets Act*

The California Complete Streets Act (Assembly Bill [AB] 1358) of 2008 was signed into law on September 30, 2008. Beginning January 1, 2011, AB 1358 requires circulation element updates to address the transportation system from a multi-modal perspective. The act states that streets, roads, and highways must "meet the needs of all users in a manner suitable to the rural, suburban, or urban context of the general plan." The act requires a circulation element to plan for all modes of transportation where appropriate, including walking, biking, car travel, and transit.

The Complete Streets Act also requires circulation elements to consider the multiple users of the transportation system, including children, adults, seniors, and the disabled. AB 1358 tasks the Governor's Office of Planning and Research to release guidelines for compliance which are so far undeveloped.

### *Sustainable Communities and Climate Protection Act*

The Sustainable Communities and Climate Protection Act, or Senate Bill (SB) 375, provides incentives for cities and developers to bring housing and jobs closer together and to improve public transit. The goal is to reduce the number and length of automobile commuting trips, helping to meet the statewide targets for reducing greenhouse gas emissions set by AB 32.

SB 375 requires each Metropolitan Planning Organization to add a broader vision for growth, called a Sustainable Communities Strategy (SCS), to its transportation plan. The SCS must lay out a plan to meet the region's transportation, housing, economic, and environmental needs in a way that enables the area to meet greenhouse gas emissions reduction targets. The SCS should integrate transportation, land use, and housing policies to plan for achievement of the emissions target for the region. The most recent Southern California Association of Governments (SCAG) Regional Transportation Plan (RTP) and SCS were adopted in 2016.

### *Senate Bill 743*

This bill creates a new process for analyzing transportation impacts under the California Environmental Quality Act (CEQA). The Office of Planning and Research (OPR) finalized the proposed guidelines in December 2018. Jurisdictions have until July 1, 2020 to adopt thresholds of significance in accordance with SB 743. The required metric for determining transportation impacts is of vehicle miles traveled (VMT) rather than vehicle delay (level of service, or LOS).

## Local Regulations

### *Southern California Association of Governments (SCAG) Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS)*

SCAG is the regional transportation planning agency in Los Angeles County. As such, they are responsible for planning and funding transportation projects throughout the region. The most recent RTP/SCS was adopted in 2016 and identifies numerous projects in the Diamond Bar area to improve mobility, such as:

- Signalization of intersections;
- Complete Streets improvements;
- Interchange improvements;
- Roadway widening; and
- Intelligent Transportation System Improvements.

### *Los Angeles Congestion Management Plan (CMP)*

The Los Angeles County Metropolitan Transportation Authority (Metro) has been required by state law to prepare, and update on a biennial basis, the Congestion Management Program (CMP) for the County of Los Angeles. The CMP process was established as part of a 1990 legislative package to implement Proposition 111, which increased the state gas tax from 9 to 18 cents per gallon. The intent of the CMP was to tie the appropriation of new gas tax revenues by linking transportation and land use decisions to mitigate congestion. Under the CMP, the 88 incorporated cities plus the County of Los Angeles share various statutory responsibilities, including monitoring traffic count locations on select arterials, implementing transportation improvements, adoption of travel demand management and land use ordinances, and mitigating congestion impacts. The framework for the CMP is based on the premise that congestion can be mitigated by continuing to add capacity to roadways. This is evidenced by the primary metric that drives the program, which is Level of Service (LOS).

While the CMP requirement was one of the pioneering efforts to conduct performance-based planning, the approach has become antiquated and expensive. Recent state laws—namely AB 32 (California Global Warming Solutions Act of 2006), SB 375 (Sustainable Communities and Climate Protection Act of 2008), and SB 743 (Environmental quality: transit oriented infill projects, judicial review streamlining for environmental leadership development projects)—all move away from LOS directly or indirectly and instead focus on VMT as the appropriate metric to evaluate the performance of transportation investment. In sum, the CMP contradicts these key state policies and Metro's own efforts to promote a more sustainable and equitable regional transportation plan.

On June 28, 2018, the Metro Board of Directors initiated the process to opt out of the state mandated CMP. California Government Code §65088.3 states that jurisdictions within a county may opt out of the CMP requirement without penalty, if a majority of local jurisdictions representing a majority of the county's population formally adopt resolutions requesting to opt out of the program. Metro is requesting that each governing body adopt a resolution to formally opt out of the CMP.

On March 5, 2019, the Diamond Bar City Council joined a growing coalition of L.A. County cities electing to opt out of the CMP by adopting Resolution No. 2019-05.

On August 28, 2019, Metro informed its member agencies that the statutorily required threshold of local jurisdictions in the County adopted resolutions electing to be exempt from the CMP, and that Metro notified the State Controller, the California Transportation Commission and the Office of Planning and Research that Los Angeles County has opted out of the CMP.

#### *City of Diamond Bar Municipal Code*

The City's Municipal Code identifies numerous components affecting the transportation system. This includes parking requirements, truck routes, and design guidelines that provides detailed design information for the circulation system of new developments, including parking facilities, driveways, sidewalks, and pedestrian facilities.

# 12.2 Impact Analysis

## SIGNIFICANCE CRITERIA

For the purposes of this EIR, a significant adverse impact would occur if implementation of the Proposed Project would:

**Criterion 1:** **Conflict with applicable circulation plans, ordinances, or policies and applicable congestion management programs**

**Criterion 2:** **Conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b);**

**Criterion 3:** **Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment); or**

**Criterion 4:** **Result in inadequate emergency access.**

## METHODOLOGY AND ASSUMPTIONS

### Vehicle Miles of Travel Analysis

The City of Diamond Bar does not have adopted thresholds of significance related to SB 743 which requires VMT to be the metric to designate significant transportation impacts related to CEQA. The Office of Planning and Research (OPR) published the *Technical Advisory on Evaluating*

*Transportation Impacts in CEQA (December 2018)* which provides recommendations for conducting VMT analysis and thresholds of significance. The methodology below is consistent with the Technical Advisory and uses recommendations within to disclose transportation related impacts. For the purposes of this study, the cumulative condition was analyzed to determine if the proposed project would increase residential VMT per person or commuter VMT per person as detailed below, consistent with the Technical Advisory.

The SCAG model consistent with the 2016 SCAG RTP/SCS growth projections was used to estimate the VMT generated by land uses in the Planning Area. To assess the VMT generated in Diamond Bar, the production and attraction (PA) method was used which records all home-based production and home-based-work production and attraction vehicular trips generated by land uses in the Planning Area across the entire regional network. Two types of trip purposes are isolated:

- **Home-Based Production trips -** Includes all trips that begin at a household within the Planning Area.
- **Home-Based-Work Attraction trips** - Includes all trips with a destination at an employment center within the Planning Area.

The Vehicle Trips (VT) per day for home-based production trips and home-based-work attraction trips were estimated using the SCAG model. The VMT per day was derived by multiplying the number of VT per day by the average length of the trip by trip purpose. The VMT is normalized by dividing by the population or employment within the area.

## IMPACTS

### Impact 3.12-1 Implementation of the Proposed Project would not conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities. (*Less than Significant*)

#### *a) Circulation Map*

The Project proposes to adopt a new circulation map that redefines the roadway classification of some Major Arterials to Boulevards. Boulevards are expected to have the same vehicle capacity as major arterials with additional emphasis on pedestrian and bicycle facilities. The General Plan also redefines some existing roads that currently act as Major Arterials or Collectors as such which does not change the design or function of the roadway. The roadway network in Diamond Bar is considerably built out such that no roadway capacity improvements (lane additions, lane widenings, medians) are proposed that would change the function of the roadway network in a manner that would be considered significant. In fact, the plan implements Complete Street goals which often calm traffic, reduce lane widths, or install bike lanes and therefore this impact is considered less than significant.

*Proposed General Plan Policies that Address the Impact*

Circulation

CR-P-17. Maintain roadway design standards to manage vehicle speeds and traffic volumes, updating them as needed.

*Mitigation Measures*

None required.

#### *b) Bicycle and Pedestrian Circulation*

The City of Diamond Bar does not have a standardized metric by which to evaluate the effectiveness of the bicycle circulation system nor the pedestrian circulation system. For this evaluation, the Proposed Project is considered to have an impact on bicycle and/or pedestrian facilities if it would adversely affect an existing bicycle or pedestrian facility or preclude the construction of planned facilities.

From a policy perspective, implementation of the Proposed Project would enable the City to improve bicycling programs and infrastructure throughout the City, providing connections to the existing and planned regional bicycle network, resulting in a less than significant impact. Implementation of the Proposed Project would also enable the City to improve pedestrian programs and infrastructure throughout the City, providing connections to existing and planned pedestrian facilities, resulting in a less than significant impact.

*Proposed General Plan Policies that Address the Impact*

Circulation

CR-G-11. Expand and strengthen existing pedestrian and cyclist network and facilities.

CR-G-12. Improve safety and accessibility for pedestrians and cyclists.

CR-P-30. Use Figure 4-2: Proposed Bicycle Network as the overall guide for undertaking bikeway and pedestrian improvements in the community, with the Parks and Recreation Master Plan providing a more detailed implementation strategy.

CR-P-31. Update the Parks and Recreation Master Plan using community input and best practices to identify bicycle infrastructure needs such as gaps in the network, prioritize facilities and improvements, and identify funding for proposed facilities. Review and update the plan as necessary.

CR-P-32. Provide pedestrian and bicycle connectivity in existing residential neighborhoods, utility easements, and/or flood control channels, including connections through cul-de-sacs to other streets or community facilities where feasible.

CR-P-33. Ensure that new development integrates with Diamond Bar's bicycle and pedestrian networks by requiring developers to provide sidewalks and bicycle infrastructure on local streets.

CR-P-34. Collaborate with neighboring jurisdictions and colleges such as Cal Poly Pomona and Mt. San Antonio College to establish a safe and efficient bicycle route between Diamond Bar and these institutions.

CR-P-35. Develop bicycle and pedestrian facility standards for pavement design, signage, and roadway and intersection striping for each functional roadway classification, so streets are accessible by all users and modes.

CR-P-37. Ensure that secure and convenient bicycle parking is available at major destinations such as the Town Center, commercial centers, transit stops, schools, parks, multi-family housing, and large employers.

CR-P-38. Study the feasibility of implementing a bike share program to connect neighborhoods and major destinations, such as the Transit-Oriented, Neighborhood, Town Center, and Community Core Overlay mixed-use areas; local schools and colleges; parks; and commercial centers.

CR-P-39. Ensure a safe environment for pedestrians and cyclists while allowing for local traffic to access freeways in the Neighborhood Mixed Use area through the following strategies:

a. Traffic calming measures such as reduced vehicle speed limits and road narrowing;

b. Widening sidewalks, providing planting strips between sidewalks and streets and providing pedestrian amenities such as shade trees and street furniture along Diamond Bar Boulevard;

c. Implementing traffic calming measures such as reduced vehicle speeds and road diets along Diamond Bar Boulevard;

d. Buffering bike lanes along Diamond Bar Boulevard;

e. Enhancing pedestrian crossings at the intersection of Diamond Bar Boulevard and Sunset Crossing Road, at Diamond Bar Boulevard and Highland Valley Road, and at Diamond Bar Boulevard and the SR-60 on/off ramps; and

f. Incorporating multi-use pathways internal to new development and connecting to existing development.

CR-P-40. Provide for a vibrant Town Center that encourages pedestrian activity and comfort within the Town Center Mixed Use area while accommodating through traffic along Diamond Bar Boulevard through the following strategies:

a. Establishing a new pedestrian-oriented main street or pedestrian pathway in the Town Center;

b. Enhancing the pedestrian experience along Diamond Bar Boulevard within the Town Center area with widened sidewalks, shade trees, and pedestrian amenities such as street furniture, attractive paving, pedestrian-scaled lighting, and landscape buffers;

c. Buffering bike lanes along Diamond Bar Boulevard;

d. Improving crosswalks at the intersection of Diamond Bar Boulevard and Palomino Drive, at Diamond Bar Boulevard and Golden Springs Drive, and where Diamond Bar Boulevard intersects with the driveway to the Town Center; and

e. Strengthening cyclist and pedestrian connections between the Town Center area and nearby schools to provide safe and convenient routes to the Town Center for students by identifying barriers such as safety hazards and gaps in the bicycle and pedestrian networks and implementing improvements to address those barriers.

CR-P-41. Promote a fine-grained network of safe pedestrian, bicycle, and vehicle connections in the Transit Oriented Mixed-Use area, emphasizing connectivity to the Metrolink station through the following strategies:

a. Improving crosswalks along Brea Canyon Road and Lemon Avenue;

b. Enhancing the pedestrian experience along South Brea Canyon Road within the Transit Oriented Mixed Use area with widened sidewalks, shade trees, and pedestrian amenities such as street furniture, attractive paving, and pedestrian-scaled lighting, where feasible;

c. Providing high-visibility pedestrian and bicycle connections to the Metrolink station;

d. Incorporating multi-use pathways internal to new development and connecting to existing development; and

e. Studying the potential for shuttle, bikeshare, and/or other linkages to improve the convenience of travel within the mixed-use area.

CR-P-42. Develop and implement Safe Routes to School and Safe Routes for Seniors programs in collaboration with interested stakeholders such as school districts, senior living facilities, and community organizations to encourage active transportation among students and seniors while ensuring student and senior safety.

CR-P-43. Strengthen the protection of cyclists in bike lanes by implementing improvements such as increasing visibility of lane markings and signage, increasing bike lane widths, raising lanes, designing safer intersection crossings and turns, and buffering lanes from traffic wherever feasible, prioritizing bicycle lanes along arterials.

CR-P-44. Enhance bicycle and pedestrian safety and comfort where feasible through means such as:

a. Introducing bicycle- and pedestrian-level street lighting to improve safety at night;

b. Furnishing intersections with crosswalks on all legs of the intersection;

c. Improving pedestrian safety with intersection design features such as improved signal timing, sidewalk bulb-outs, pedestrian refuge islands with "noses" that extend past the crosswalks, advance vehicle stop bars, high visibility crosswalk striping or decorative paving;

d. Improving bicycle safety with intersection design features such as bicycle detection and signalization, painted bike boxes, and intersection crossing markings;

e. Widening sidewalks, providing planting strips between sidewalks and streets and providing pedestrian amenities such as shade trees and street furniture; and

f. Implementing traffic calming measures to reduce vehicle speeds and congestion.

*Mitigation Measures*

None required.

*c) Public Transit System*

The City of Diamond Bar has no standardized metric to evaluate transit service citywide. The Proposed Project is expected to increase the demand for travel in the Planning Area through development resulting in new residential and employment uses. This could increase the market for public transportation, resulting in increased ridership. Increased overall travel demand is expected to worsen the levels of service on some roadways increasing vehicle delays that could reduce the reliability of transit service.

The Proposed Project provides transit supportive policies that are cognizant of the financial constraints of providing fixed-route and dial-a-ride transit service in a suburban setting, and is supportive of providing additional rail service to downtown, in addition to other supporting transit facilities, resulting in a less than significant impact.

*Proposed General Plan Policies that Address the Impact*

Circulation

CR-G-13. Maximize the availability, efficiency, and effectiveness of public transit service.

CR-P-46. Integrate transit nodes and connections with adjacent existing and proposed developments and destinations—such as employment centers, commercial centers, major attractions, and public pedestrian spaces—to make them more accessible to transit users.

CR-P-47. Coordinate with Foothill Transit, Metrolink, and other transit providers to incorporate real-time information systems at transit stops so that passengers will know when their vehicle is expected to arrive.

CR-P-48. Work with Foothill Transit to maintain and improve bus stops and shelters, as well as identify areas where service can be improved or expanded to increase system use.

CR-P-49. Create additional pedestrian, bus, and bikeway connections to the Metrolink station to address first- and last-mile (FMLM) connectivity and make it easier to travel to between the station and surrounding neighborhoods.

CR-P-50. Coordinate with Metrolink and Union Pacific Railroad (UPRR) to provide more frequent service at the City of Industry station, including service for shorter trips, to increase the convenience and use of transit.

CR-P-51. Continue to support privately funded local transit systems that are accessible for seniors, youths, and individuals with disabilities, to ensure that all community members have the ability to travel while decreasing congestion.

CR-P-52. In areas or on routes between destinations that have been determined to be infeasible for public transit providers to serve, explore the use of programs that subsidize the use of TNCs, alternative transit services, or the City's Diamond Ride program, particularly for populations with special needs, such as seniors, youths, or persons with disabilities, until such a time as mass transit becomes feasible.

*Mitigation Measures*

None required.

### Impact 3.12-2 Implementation of the Proposed Project would conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b). (*Significant and Unavoidable*)

For the purposes of this EIR, the following thresholds of significance are used to determine if the proposed General Plan has an impact under the terms of Criteria 2:

**(a) Vehicle Miles Traveled:**

1. A significant impact would occur if the proposed General Plan Update increases the Vehicle Miles Traveled (VMT) per person above the baseline conditions.

In the case of a General Plan cumulative scenario, the baseline condition is considered the No Project condition or buildout of the existing general plan and SCAG 2016 RTP. As shown in Table 3.12-7: Future Year Conditions VMT Summary in the Planning Area, VMT is expected to increase under the proposed General Plan. Home-based production VMT per resident is expected to increase by five percent and home-based-work attraction VMT per employee is expected to increase by nine percent. Part of the increase is associated with the addition of more employment and retail opportunities within the City that have the potential to import vehicle trips from surrounding communities.

**Table 3.12-7: Future Year Conditions VMT Summary in Planning Area[1]**

| | *Diamond Bar No Project (SCAG 2016 RTP)* | | *Diamond Bar Proposed Plan* | | *Difference* | |
|---|---|---|---|---|---|---|
| Population | 57,790 | | 66,685 | | 8,895 | |
| Employment | 18,855 | | 21,744 | | 2,889 | |
| VMT | *Home-Based Production* | *Home-Based-Work Attraction* | *Home-Based Production* | *Home-Based-Work Attraction* | *Home-Based Production* | *Home-Based-Work Attraction* |
| Daily Vehicle Trips | 89,611 | 21,381 | 102,370 | 26,903 | 12,758 | 5,523 |
| Daily VMT | 1,194,519 | 369,245 | 1,415,773 | 470,540 | 470,540 | 101,296 |
| Average Trip Length | 13.33 | 17.27 | 13.83 | 17.49 | 0.5 | 0.22 |
| Daily VMT per Resident/Employee | 20.67 | 19.90 | 21.70 | 21.64 | 1.03 | 1.74 |

Notes:
1. Planning Area includes City limits and SOI.

*Source: Fehr & Peers, 2019.*

### *Proposed General Plan Policies that Address the Impact*

As previously noted, the proposed plan will affect VMT in the area. It should be noted that the VMT information presented is produced from the regional travel demand model and only accounts for the built environment variables to which the model is sensitive. Additional policies in the General Plan Circulation Element supporting variables the model is not sensitive to (such as connectivity in neighborhoods, presence of bicycle and pedestrian facilities, and transportation demand management (TDM) measures) are not reflected in these estimates. Thus, the VMT estimates in this analysis are conservatively high.

The following proposed policies would reduce potential impacts by supporting TDM measures and requiring that new developments prepare transportation impact assessments to determine project specific impacts of new development under the proposed General Plan such that impacts can be appropriately mitigated. Additionally, City goals and policies strive to develop a multi-modal transportation network that would provide transportation alternatives to the single-occupant vehicle and encourage complete street design.

Policies in CR-G-11, CR-G-12, CR-G-13, CR-P-30, CR-P-31, CR-P-32, CR-P-33, CR-P-34, CR-P-35, CR-P-37, CR-P-38, CR-P-39, CR-P-40, CR-P-41, CR-P-42, CR-P-43, CR-P-44, CR-P-46, CR-P-47, CR-P-48, CR-P-49, CR-P-50, CR-P-51, and CR-P-52 as listed above, as well as the following policies.

<u>Circulation</u>

CR-G-1. Improve the operating efficiency of the transportation system by reducing vehicle travel demand and providing opportunities for other modes of travel. Before approving roadway improvements that focus on increasing vehicle capacity, consider alternatives that reduce vehicle volumes and prioritize projects that would reduce single-occupancy vehicle use and greenhouse gas emissions.

CR-G-2. Maintain a street classification system that considers the broad role of streets as corridors for movement but also reflects a Complete Streets concept that enables safe, comfortable, and attractive access for pedestrians, bicyclists, motorists, and transit users of all ages and abilities, in a form that is compatible with and complementary to adjacent land uses, including neighborhood schools.

CR-G-3. Strive to achieve a finer grained network of streets and pedestrian/bicycle connections as development occurs, especially in focus areas such as the Transit-Oriented, Neighborhood, Town Center, and Community Core mixed-use areas.

CR-G-4. Design roadways serving pedestrian-oriented mixed-use areas to promote neighborhood interaction, pedestrian comfort and walkability, and commercial patronage.

CR-G-5. Develop neighborhood streets and alleys that encourage walking, biking, and outdoor activity through engineering and urban design principles that reduce the potential for speeding and cut-through traffic, which may include traffic calming measures.

CR-G-6. Track the use of future transportation options such as Transportation Network Companies (TNCs), ride sharing, and autonomous vehicles (AVs), and adjust City requirements, such as roadway design or parking standards as needed to ensure safety and access for all users and modes.

CR-P-1. When redesigning streets, plan for the needs of different modes by incorporating elements such as shade for pedestrians, safe pedestrian-friendly crossings/intersections, lighting at the pedestrian scale, bike lanes, signage visible to relevant modes, transit amenities, etc.

CR-P-2. Require that new street designs and efforts to retrofit existing streets in residential neighborhoods minimize traffic volumes and/or speed as appropriate without compromising connectivity for emergency vehicles, bicycles, pedestrians, and users of mobility devices.

CR-P-3. Plan for and provide new connections within the Transit-Oriented, Neighborhood, Town Center, and Community Core mixed-use areas to create finer grained, pedestrian-scaled circulation networks that support the development of connected and accessible neighborhoods. Connections should facilitate the use of alternatives to single-occupancy vehicles, such as walking, bicycling, and transit by improving the safety and accessibility of those modes.

CR-P-4. Develop traffic calming strategies for Diamond Bar Boulevard between Temple Avenue and Golden Springs Drive in order to provide a safe and comfortable pedestrian-friendly environment along and through the Neighborhood Mixed Use and Town Center Mixed Use areas.

CR-P-6. Require that all new development study the impact of vehicle miles traveled (VMT) and implement congestion mitigation measures to ensure that new projects do not significantly increase local City congestion based on defined level of service (LOS) standards.

CR-P-7. Develop City street design standards that:

a. Address the needs of different modes according to roadway classification
b. Reduce the potential for conflicts and safety risks between modes; and
c. Support and manage the use of transportation options that will become increasingly popular in the future, such as TNCs, AVs, micro-transit (privately operated transit), and other emerging transportation technologies.

CR-P-8. Plan for passenger pick-up/drop-off locations within both public right-of-way and on private properties for AVs, TNCs, and micro-transit to limit traffic disruptions and increase safety by identifying and designating specific locations for pick-ups and drop-offs.

CR-P-9. Develop a plan for managing limited curb space throughout the City's commercial, mixed-use, and higher density areas to accommodate efficient package and food

deliveries; delivery of goods to restaurants/retail; pick-up/drop-off of passengers by transit, taxis, and on-demand shared ride services; and the safe movement of pedestrians and bicyclists.

CR-P-10. Develop curbside management guidelines that ensure curb spaces meet multi-modal demands safely and efficiently.

CR-P-11. Implement standards for inventorying and encoding curb use data to monitor the effectiveness of curbside management guidelines and provide evidence to support or make changes to curb space designations and/or management strategies.

CR-G-8. Encourage reduction in vehicle miles traveled (VMT) as part of a strategy to reduce greenhouse gas (GHG) emissions.

CR-P-12. Balance meeting LOS standards with the need to reduce VMT through maintaining and supporting multi-modal connectivity such as transit, bicycling, walking, and by encouraging infill development with a pedestrian-friendly urban design character.

CR-P-15. Limit street right-of-way dimensions where appropriate to maintain desired neighborhood character. Consider allowing narrower street rights-of-way and pavement widths for local streets in new residential subdivisions.

CR-P-16. Allow exceptions to LOS standards upon findings by the City Council that achieving the designated LOS would:

a. Be technologically or economically infeasible; or
b. Compromise the City's ability to support other important policy priorities, including but not limited to:
    i. Promoting alternate modes of transportation;
    ii. Ensuring pedestrian, bicycle and automobile safety, comfort, and convenience;
    iii. Reducing VMT and GHG emissions; and
    iv. Preserving and enhancing character of the community.

CR-P-22. Implement traffic calming measures to slow traffic on local and collector residential streets and prioritize these measures over congestion management.

CR-P-23. Maintain the integrity of existing residential areas and discourage cut-through traffic by retaining cul-de-sacs and implementing other traffic calming measures that promote safe driving at speeds appropriate to the surrounding neighborhood, particularly at Prospectors Road, Chaparral Drive, Sunset Crossing Road, Lycoming Street, and Washington Street.

CR-P-24. Coordinate with local, regional, and State agencies to encourage and support programs that reduce vehicle miles traveled, such as preferential carpool and car share parking,

parking pricing, on-site childcare, flexible work schedules, subsidized transit passes, and ridesharing.

CR-P-25. Encourage participation in transportation demand programs, such as those promoting walking, cycling, and transit, through the use of City publications and public displays in order to decrease use of single occupancy vehicles.

CR-P-26. Coordinate with other jurisdictions, including neighboring cities, Los Angeles County, San Bernardino County, and Caltrans, on improvements to street segments common to the City of Diamond Bar and other jurisdictions.

CR-G-14. Provide adequate parking for all land use types, while balancing this against the need to promote walkable, mixed-use districts and neighborhoods in targeted areas, and promoting ride-sharing and alternative transportation modes.

CR-P-53. Update parking standards in the Municipal Code to ensure that they are reflective of the community's needs, using current data on parking demand and taking into consideration demographics and access to alternative modes of transportation.

CR-P-54. Incorporate criteria in the Municipal Code to allow reductions in parking requirements in exchange for VMT reduction measures.

CR-P-55. Incorporate common bicycle parking requirements for appropriate uses— including multi-family residential and office—in the Municipal Code.

CR-P-57. Incentivize the provision of preferential parking for high-occupancy vehicles to encourage carpooling.

CR-P-59. Work with Caltrans to evaluate existing Caltrans-operated park-n-ride facilities within the City and expand the facilities where necessary.

CR-P-67. Ensure that trucks do not interfere with cyclist or pedestrian activity by:

a. Incorporating off-street or buffered bike lanes and walking paths where truck routes overlap with bicycle routes or streets with heavy pedestrian traffic; and

b. Designing driveways and curb cuts to avoid maneuvering on sidewalks or in street traffic, while also facilitating the safe and efficient movement of trucks.

The City shall implement all policies identified in the proposed General Plan Circulation Element to reduce the demand for vehicle travel within and through the Planning Area, as well as work with local, regional, and state agencies to implement regional transportation improvements. Additionally, new developments would be required to evaluate their project-specific impacts on the transportation system and fund improvements to maintain acceptable levels of service, except where exemptions are identified in the Transportation and Circulation Element of the proposed General Plan. However, even with implementation of these policies, the impact could remain significant and unavoidable.

### Impact 3.12-3 Implementation of the Proposed Project would not substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment). (*Less than Significant*)

The Proposed Project does not specify design features for the transportation system in the Planning Area, and would thus not substantially increase hazards due to a design feature.

In general, the proposed General Plan land use diagram and policies emphasize transition areas and buffers between land uses of varying intensities, which would serve to reduce potential conflicts between users of the transportation system associated with each land use, including farm equipment, commercial and industrial truck traffic, commute traffic, pedestrians, and cyclists. The specific design and operations of individual future development projects cannot be known at this time; however, policies included in the Proposed Project would serve to reduce potential impacts from future development. The Proposed Project has been developed with an emphasis on Complete Streets, which by their nature, would improve compatibility between different transportation modes as well as between the transportation system and adjacent land uses. Proposed policies that promote bicycle and pedestrian safety as well as the development of safe routes to school, and that require mitigation of traffic-related impacts would help to identify and address potential safety concerns. Therefore, with adherence to policies included in the Proposed Project, impacts increasing hazards due to a design feature or incompatible uses would be less than significant.

*Proposed General Plan Policies that Address the Impact*

Policies CR-G-12, CR-P-7, CR-P-8, CR-P-42, CR-P-43, CR-P-44 and CR-P-67 as listed above, as well as the following policies.

<u>Circulation</u>

CR-G-6. Track the use of future transportation options such as Transportation Network Companies (TNCs), ride sharing, and autonomous vehicles (AVs), and adjust City requirements, such as roadway design or parking standards as needed to ensure safety and access for all users and modes.

CR-G-16. Facilitate safe and efficient movement, loading, and unloading (i.e. pick-up and delivery) of goods at destinations within the City.

CR-P-20. Implement measures such as additional signal timing and synchronization, speed limit regulations, and ITS techniques to increase safety and reduce congestion. Maintain a pavement management system and maintenance program for all public roadways throughout the City.

CR-P-62. Revise the designation of truck routes to minimize truck traffic through or near residential areas. Maintain truck routes with signage between industrial areas and freeway interchanges to discourage truck travel through residential neighborhoods, and provide truck route information to truck routing software providers.

CR-P-63. Develop design guidelines for designated truck routes, including proper turning radii at intersections.

CR-P-64. Continue prohibiting trucks heavier than 5 tons from operating on designated residential streets, except for emergency, maintenance, residential moving trucks, and transit vehicles, to maintain pavement integrity.

*Mitigation Measures*

None required.

### Impact 3.12-4 Implementation of the Proposed Project would not result in inadequate emergency access. (*Less than Significant*)

The Proposed Project is presented at a programmatic level. Emergency accessibility typically is assessed at a project level. Project level review required by the City includes site access review for emergency vehicles and traffic control plans as needed that account for emergency vehicles. Implementation of the following proposed General Plan policies will ensure that inadequate emergency access does not occur and will result in a less-than-significant impact.

*Proposed General Plan Policies that Address the Impact*

Policies CR-P-2 and CR-P-64 as listed above, as well as the following policies.

Public Safety

PS-G-8. Use the Local Hazard Mitigation Plan and Emergency Operations Plan to address mitigation and response for local hazards, including seismic hazards, flood hazards, fire hazards, hazardous materials incidents, and hazardous sites, and to plan for the protection of critical facilities (i.e., schools, hospitals), disaster and emergency response preparedness and recovery, evacuation routes, peak load water supply requirements, and minimum road width and clearance around structures.

PS-P-42. Continue to disseminate public information and alerts regarding the nature and extent of possible natural and man-made hazards, resources identifying measures residents and businesses can take to prepare for and minimize damage resulting from these hazards, citywide response plans, and evacuation routes.

*Mitigation Measures*

None required.

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# 3.13 Utilities and Service Systems

This section assesses potential environmental impacts from future development under the Proposed Project as related to public utilities, including water, wastewater, and stormwater systems, and solid waste services. This section describes existing water, wastewater, stormwater, and solid waste infrastructure and services in the Planning Area, as well as relevant federal, State, and local regulations and programs.

There were two comments on the Notice of Preparation (NOP) regarding topics addressed in this section. Those comments include the following topics specific to Utilities and Service Systems.

- The General Plan and EIR need to address impacts from electrical lines, consider undergrounding electrical lines, and enhance or upgrade sewer or water/wastewater lines to accommodate new growth. The EIR does not evaluate impacts to specific utilities, rather it evaluates to overall utility system impacts based on proposed land use changes. Undergrounding of electrical lines and upgrading specific utility lines are typically completed in utility master plan documents.
- Southern California Edison (SCE) provided what appeared to be a form letter intended for development projects, with standard requirements pertaining to utility easements and procedures for relocating utility assets. The letter has no relevance to the Proposed Project, and will not be addressed further.

## Environmental Setting

### PHYSICAL SETTING

#### Water System

A fundamental yet long-term constraint for development is availability and quality of water. The City relies on Walnut Valley Water District (WVWD or the District) to provide reliable water supplies throughout the city. Nearly all water supplies are imported due to a limited availability of local groundwater. Imported water supplies are expected to remain attainable for at least three years, and projected supplies are expected to meet projected demands from 2020 through 2040 under single dry-year and multiple dry-year conditions[1]. Drought conditions will continue to strain water supply available to WVWD and the City as they do throughout Southern California. Thus a "drought-proof" recycled water system is maintained for use by parks and school properties to

[1] Metropolitan Water District of Southern California 2015 Urban Water Management Plan.

relieve demand on the District's potable water system. WVWD is proactive in addressing water supply constraints and continues to invest in groundwater facilities.

### *Existing and Planned Water Supply*

Water for the City is supplied by WVWD, which imports all potable water from the Metropolitan Water District of Southern California (MWD). WVWD currently has projects underway that will produce groundwater from the San Gabriel Basin, Central Basin, and Six Basins to supplement potable water supplies. A description of available water supplies is provided below.

#### Imported Water

MWD obtains surface water from the Colorado River and from Northern California via the Colorado River Aqueduct and the California Aqueduct respectively. WVWD purchases water through MWD's designated wholesale agency, the Three Valleys Municipal Water District (TVMWD). Imported water supply volumes are projected to increase through 2035 at the same rate as population growth, which is 0.7 percent as reported by the Southern California Association of Governments (SCAG)[2].

#### Groundwater

WVWD currently operates six groundwater production facilities that supply the recycled water system. This groundwater is not potable as it contains high levels of total dissolved solids and nitrates. The following three projects will allow WVWD to produce potable groundwater, thereby reducing the need for imported water.

The La Habra Heights County Water District Pipeline Project, completed in 2014, delivers up to 1,000 acre-feet of potable water per year from the Central Basin to WVWD. This project includes an inter-connection to the La Habra Heights County Water District system.

The California Domestic Water Company Project consists of a new pipeline and pump station project that will connect to the California Domestic Water Company system. Annual deliveries to WVWD will be 2,500 acre-feet of potable water. Water stored in the Main San Gabriel Basin will supply potable water for this project, which was approved in September of 2015 and is currently in the design stage.

Production from Six Basins will supply WVWD with approximately 928 acre-feet of potable water per year upon completion of the Pomona Basin Regional Groundwater Project. This project includes reactivating an existing well and constructing one new well, and is expected to be complete in 2019.

[2] Southern California Association of Governments (SCAG), 2016-2040 RTP SCE Demographics and Growth Forecast, 2015.

Recycled Water

WVWD currently owns, operates, and maintains a recycled water system that provides irrigation water to customers throughout its service area, including the City. The County Sanitation District's Pomona Water Reclamation Plant supplies recycled water to WVWD for irrigating large landscape areas such as parks, golf courses, greenbelts, and school grounds. Future uses will generally fit these categories, with potential demands for toilet flushing in high-rise buildings and industrial use. Local groundwater supplies may also help WVWD expand the current recycled water system. This system is completely separate from the potable system and helps reduce potable water demand.

In 2015, WVWD's recycled water system delivered 2,242 acre-feet of water, including 511 acre-feet to customers within the city. Approximately 170 existing potable water irrigation users (approximately 1,050 acre-feet annually) throughout the city could be converted to recycled water use if the system is expanded. However, recycled water supplies are maxed out during peak summer months. Therefore, large-scale expansion of the system is not feasible until additional recycled water supplies become available.

Future Water Projects

The Cadiz Valley Water Conservation, Recovery and Storage Project will allow TVMWD to supply WVWD with water from a renewable aquifer in the eastern Mojave Desert. Approximately five percent of the aquifer's water will be pumped over the 50-year life of the project. This will prevent loss of water to evaporation, provide a new water supply, and create a groundwater bank for Southern California water providers. This project is currently securing final approvals and a construction start date is not yet available.

### *Water Demand*

WVWD maintains 26,836 water meters throughout its service area, 95 percent of which are residential. Diamond Bar's potable water use since 1993 has ranged from 7,077 to 13,188 acre-feet per year. Water use has generally declined during this time despite a continual increase in the total number of accounts, as shown in Table 3.13-1.

**Table 3.13-1: Historic and Projected Water Usage (Potable), City of Diamond Bar**

| *Year* | *Total Accounts* | *Total Water Usage (Acre-Feet per Year)* |
|---|---|---|
| 1993 | 11,772 | 12,681 |
| 1995 | 11,833 | 10,975 |
| 2000 | 11,971 | 13,188 |
| 2005 | 12,422 | 12,521 |
| 2010 | 12,426 | 9,260 |
| 2015 | 12,432 | 7,077 |
| 2020 (Projected) | Not Available | 8,281 |
| 2035 (Projected) | Not Available | 9,179 |

Note: The 2015 WVWD Urban Water Management Plan projects water usage through 2035. The UWMP is updated every 5 years and projects usage over a 20-year period. Water usage for 2040 is not available.

*Source: Water Services Response Form, Walnut Valley Water District, 2015.*

Historic data for recycled water is not available prior to 2010. However, usage is expected to increase through the 2035 system buildout, as shown in Table 3.13-2.

**Table 3.13-2: Historic and Projected Water Usage (Recycled), City of Diamond Bar**

| *Year* | *Total Accounts* | *Total Water Usage (Acre-Feet per Year)* |
|---|---|---|
| 2010 | 39 | 499 |
| 2015 | 42 | 511 |
| System Buildout (2035, Projected) | 210 | 1,561 |

Note: The 2015 WVWD Urban Water Management Plan projects water usage through 2035. The UWMP is updated every 5 years and projects usage over a 20-year period. Water usage for 2040 is not available.

*Source: Water Services Response Form, Walnut Valley Water District, 2015.*

A breakdown of all water uses from 2015 show single and multi-family residences use a majority of potable water (80 percent for 2015). Commercial properties provide the next highest demand for potable water (5.7 percent for 2015). See Table 3.13-3 below.

**Table 3.13-3: 2015 Water Usage Breakdown (Potable and Recycled), City of Diamond Bar**

| *Land Use* | *Total Accounts* | *Total Water Usage (Acre-Feet per Year)* |
|---|---|---|
| Single-Family Residential | 11,936 | 5,115 |
| Multi-Family Residential | 100 | 974 |
| Commercial | 200 | 430 |
| Industrial | 0 | 0 |
| Municipal/Public Use | 134 | 374 |
| Landscape | 62 | 183 |
| **Total 2015 Potable Water Use** | | **7,076** |
| Landscape (Non-Potable) | 42 | 511 |
| **Total 2015 Water Use** | | **7,587** |

*Source: Water Services Response Form, Walnut Valley Water District, 2015.*

Water Supply Versus Demand

A comparison of projected water supplies and usage at regular intervals is only available for WVWD's total service area and is shown on Table 3.13-4 below. According to WVWD staff, existing and planned facilities are capable of maintaining a sufficient level of service for projected population growth in the city.

**Table 3.13-4: 2015 Water Usage Breakdown (Potable and Recycled), Walnut Valley Water District**

| *Year* | *Projected Water Usage (Acre-Feet per Year)* | *Projected Water Supply (Acre-Feet per Year)* |
|---|---|---|
| 2020 | 19,357 | 20,074 |
| 2025 | 20,035 | 20,777 |
| 2030 | 20,736 | 21,505 |
| 2035 | 21,462 | 22,258 |

Note: The 2015 WVWD Urban Water Management Plan projects water usage through 2035. The UWMP is updated every 5 years and projects usage over a 20-year period. Water usage for 2040 is not available.

*Source: Walnut Valley Water District 2015 Urban Water Management Plan, 2016.*

Water Conservation

Ordinance No. 06-09-07 was adopted by WVWD to establish progressive water reductions during drought conditions. This ordinance implemented a water shortage contingency plan describing five stages of action, each targeting a percent reduction in water use. Stages of action will be mandatory and are a function of MWD's water shortage allocation plan, as shown in Table 3.13-5.

WVWD also established Demand Management Measures to enforce responsible water use. Wasteful consumption, including excessive runoff and washing hard or paved surfaces, is prohibited. Notified water users have five days to remedy any wasteful practices. Failure to comply may result in a disconnection of service.

WVWD has public outreach/information programs that are also in effect and provide education and encouragement through newspapers, billing inserts, social media, signs, and community events. Similar outreach is conducted at schools, including in-class presentations and internship opportunities for high school students. Other incentives to conserve water include rebate programs for rain barrels and high-efficiency washing machines.

**Table 3.13-5: Water Shortage Stage of Actions**

| *MWD Stage* | *WVWD Stage of Action* | *Participation* | *Reduction Objective* |
|---|---|---|---|
| None | Initial | Permanent | 10% |
| 1 or 2 | Stage 1 | Mandatory | 10% - 15% |
| 3 or 4 | Stage 2 | Mandatory | 15% - 25% |
| 5 or 6 | Stage 3 | Mandatory | 25% - 35% |
| 7, 8, 9 or 10 | Stage 4 | Mandatory | 35% - 50% |

*Source: Walnut Valley Water District 2015 Urban Water Management Plan, 2016.*

### *Water Infrastructure*

WVWD's service area encompasses approximately 29 square miles of the San Gabriel Valley. The service area includes the City, portions of the cities of Walnut, West Covina, Pomona, and a section of unincorporated Rowland Heights. WVWD's service area is primarily residential, with most commercial and industrial uses located in the City of Industry.

Potable Water

WVWD potable water distribution and storage system consists of the following facilities:

- 23 water reservoirs;
- 9 pump stations;
- 29 pressure regulating stations;
- 238.6 miles of distribution and transmission pipeline; and

- 4 connections for importing water.[3]

Eight pressure zones are required to provide adequate water pressure to all consumers.

An overview of WVWD's facility conditions was not available, therefore a comprehensive evaluation may be required to properly assess those facilities in the city. Improvements and upgrades are in process, including the development of a disinfectant residual control system to enhance and maintain water quality. An emergency power program is in process that will ensure availability of potable water after emergencies or power outages.

Recycled Water

WVWD recycled water distribution and storage system consists of the following facilities:

- 2 water reservoirs;
- 2 pump stations;
- 6 wells; and
- 8.37 miles of distribution pipeline.[4]

Communities within WVWD's service area are supportive of efforts to expand the recycled water system. WVWD has funded installation of recycled water distribution mains and meters. Installation of new meters is required for all development projects that have a potential for recycled water use.

## Wastewater

The County provides wastewater collection and treatment services under contract to the City. The Los Angeles County Public Works Department (LACPWD) provides operation and maintenance services on the local collection system, while Los Angeles County Sanitation District (LACSD) provides operation and maintenance services on the trunk sewers and wastewater treatment services. The City and surrounding areas fall under the LA County Sanitation District No. 21. The City is currently in discussion with the LACPWD on the ownership responsibilities for the local collection system. The LACPWD maintains that the system is owned by the City and maintained by LACPWD; however, the City asserts that the system is both owned and maintained by LACPWD. While the system is generally in good order, as described below, there has not been an area-wide sewer study completed in the last 10 years that identifies all deficiencies within the City's sewage infrastructure system. As such, the City's Sewer System Management Plan (SSMP) audits were used to gather information about the existing system.

[3] Source: Water Services Response Form, Walnut Valley Water District, 2015.

[4] Source: Water Services Response Form, Walnut Valley Water District, 2015.

*Sanitary Sewer System Infrastructure*

The local collection system contains 11 pump stations and 162 miles of sewer mains within the city. According to City Staff, the local collection system is in good standing with no known major system deficiencies.

Los Angeles County Public Works

The City's local collection system can be seen on Figure 3.13-1. The local system of sewer lines and pump stations feed two trunk sewer lines that convey wastewater to a LACSD treatment facility. The City has been completing systematic annual audits of the collection system, including closed-circuit television (CCTV) inspections of sewer lines, and manhole and pump station inspections. Any structural or maintenance deficiencies in the sewer system identified during the audit are reported with a recommended repair. In 2015, no sewer capacity issues were identified. However, the City regularly pumps wastewater at the intersection of Clear Creek Canyon Road and Diamond Bar Boulevard to overcome system deficiencies, which may warrant further investigation in the future.

The City and LACPWD have been effective at keeping the number and total volume of sanitary system overflows (SSOs) within the city below the Statewide median, with only three SSOs reported in each of the last three years. In addition, the City rarely received complaints from citizens. The SSOs are typically related to debris, root intrusion, and/or fats/oil/grease causing the overflow issues. In addition, there are occasional SSOs related to pump station failures.

Los Angeles County Sanitation District

LACSD maintains two trunk sewer lines that originate south of SR-60 and west of SR-57. These lines convey wastewater to a County treatment facility outside city limits, also maintained by the LACSD. As new development occurs, the LACSD requires the new developments to annex into its service area for operation, maintenance, and treatment services. Service fees fund required upgrades to trunk sewer lines or treatment plant capacity.

The following maps are included with this report:

- Los Angeles County Sanitation District map;
- Sanitation District No. 21 boundary map.

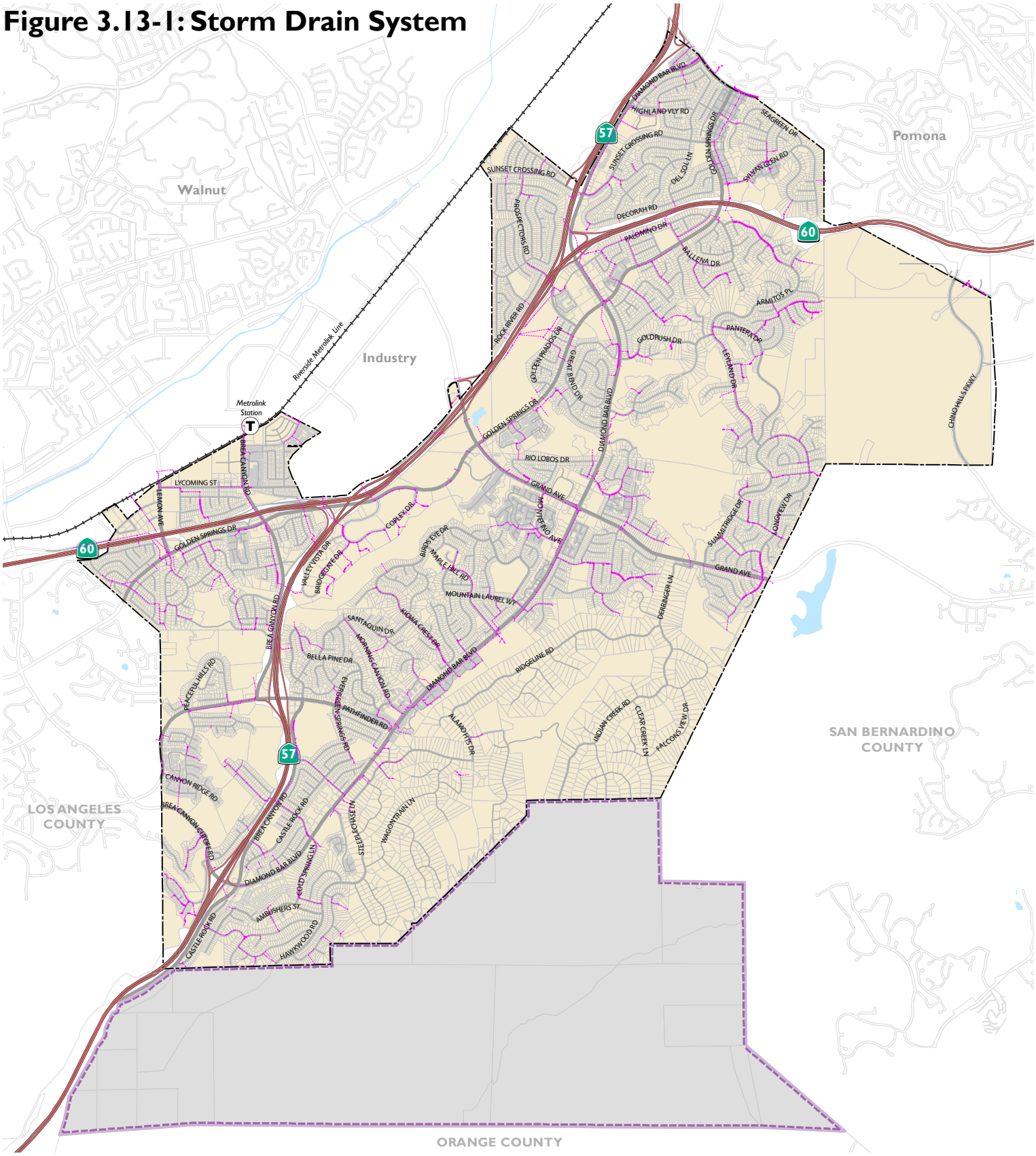
## Stormwater System

The Los Angeles County Flood Control District (LACFCD) owns and maintains all major flood control channels. In addition, a majority of the storm drain system within the city was formally transferred through resolution to LACFCD, which maintains complete ownership and maintenance of the system. However, some portions of the existing system were never transferred to LACFCD. This has resulted in ownership disputes with LACPWD, who provides maintenance only for said portions and makes no claims toward ownership. Stormwater quality is the responsibility of the City. While the system is generally in good order, a master drainage plan, identifying all deficiencies within the City's drainage infrastructure system, has not been completed.

### *Storm Drainage System Infrastructure*

The city's storm drain system can be seen on Figure 3.13-1. The local storm drain system generally consists of a series of catch basins and reinforced concrete pipes/boxes that convey stormwater runoff to other major flood control channels. The local storm drain system conveys water to one of three major flood control channels, the San Jose Creek, Diamond Bar Creek, and the Brea Canyon Channel. These major flood control channels are owned and maintained by the LACFCD. According to City Staff, the local storm drain system is in good standing with no known major system deficiencies.

# Figure 3.13-1: Storm Drain System




*Source: TKE, 2019; City of Diamond Bar 2019; Dyett & Bhatia, 2019*

### Solid Waste

The City receives refuse pickup and disposal service from Waste Management, Inc. for single-family residential uses and Valley Vista Services, Inc. for commercial and multi-family residential uses. Most multi-family residences within the City are provided with communal recycling bins, as well as with solid waste disposal bins. Other recycling services offered within the City include:

- ARC International Corporation (e-waste only)
- Curbside Inc. (hazardous waste only)
- LA County HHW&E-Waste Roundups (hazardous and e-waste)
- Los Angeles County Materials Exchange
- Mission Recycling (e-waste only)
- S.A.F.E. Collection Center (hazardous and e-waste); and
- Walnut/Diamond Bar Sheriff's Station (hazardous waste only)

Waste Management provides weekly pickups for general trash service, recycling, and yard waste. In addition, Waste Management provides bulky item collection up to four times per customer per year and on-call used motor oil and sharps collections. Once collected from areas within the City, the refuse is currently delivered to El Sobrante Landfill. Valley Vista Services delivers refuse to El Sobrante Landfill and Alpha Olinda Landfill.

The Los Angeles County Department of Public Works prepares and administers the Countywide Integrated Waste Management Plan (IWMP). For the current planning period from 2017 to 2032, the IWMP Annual Report estimates that a shortfall in permitted solid waste disposal capacity is not anticipated. The IWMP Report also states that the cumulative need for Class III landfill disposal capacity, approximately 126.4 million tons in 2032, will not exceed the 2017 remaining permitted Class III landfill capacity of 167.6 million tons.

## REGULATORY SETTING

### Federal Regulations

#### *Federal Safe Drinking Water Act*

The Safe Drinking Water Act (SDWA), administered by the U.S. EPA in coordination with the states, is the main federal law that ensures the quality of drinking water. Under the SDWA, the EPA sets standards for drinking water quality and oversees the states, localities, and water suppliers who implement those standards. The Department of Public Health administers the regulations contained in the SDWA in the State of California.

### *United States Environmental Protection Agency*

The 1986 amendments to the Safe Drinking Water Act and the 1987 amendments to the Clean Water Act established the Environmental Protection Agency (EPA) as the primary authority for water programs. The EPA is the federal agency responsible for providing clean and safe surface water, groundwater, and drinking water, and protecting and restoring aquatic ecosystems. The City is in EPA Region 9 (Pacific Southwest), which includes Arizona, California, Hawaii, Nevada, Pacific Islands, and Tribal Nations.

### *Federal Water Pollution Control Act of 1972 (Clean Water Act)*

The Clean Water Act (CWA) establishes the basic structure for regulating discharges of pollutants into "waters of the United States." The Act specifies a variety of regulatory and non-regulatory tools to sharply reduce direct pollutant discharges into waterways, finance municipal wastewater treatment facilities, and manage polluted runoff. Some of these tools include:

- Section 303(d) – Total Maximum Daily Loads
- Section 401 – Water Quality Certification
- Section 402 – National Pollutant Discharge Elimination System Program
- Section 404 – Discharge of Dredge or Fill Material

Section 303(d) requires states, territories, and authorized tribes to develop a list of water-quality limited segments of rivers and other water bodies under their jurisdiction. These waters on the list do not meet water quality standards, even after point sources of pollution have installed the minimum required levels of pollution control technology. The law requires that these jurisdictions establish priority rankings for waters on the list and develop action plans, called Total Maximum Daily Loads (TMDL), to improve water quality. These are action plans designed to improve the quality of water resources. As part of the TMDL process, municipalities must examine the water quality problems and identify sources of pollutants in order to create specific actions designed to improve water quality.

Section 401 requires every applicant for a federal permit or license for any activity that may result in a discharge to a water body to obtain a water quality certification that the proposed activity will comply with applicable water quality standards.

Section 402 regulates point-source discharges to surface waters through the NPDES program. In California, the State Water Resources Control Board (SWRCB) oversees the NPDES program, which is administered by the Regional Water Quality Control Boards (RWQCBs). The NPDES program provides for both general permits (those that cover a number of similar or related activities) and individual permits. The NPDES program covers municipalities, industrial activities, and construction activities. The NPDES program includes an industrial stormwater permitting component that covers ten categories of industrial activity that require authorization under a NPDES industrial stormwater permit for stormwater discharges. Construction activities, also administered by the State Water Board, are discussed below. Section 402(p) of the federal Clean Water Act, as amended by the Water Quality Act of 1987, requires NPDES permits for stormwater discharges from municipal separate storm sewer systems (MS4s), stormwater discharges associated with industrial activity (including construction activities), and designated stormwater discharges,

which are considered significant contributors of pollutants to waters of the United States. On November 16, 1990, USEPA published regulations (40 CFR Part 122), which prescribe permit application requirements for MS4s pursuant to CWA 402(p). On May 17, 1996, the U.S. EPA published an Interpretive Policy Memorandum on Reapplication Requirements for Municipal Separate Storm Sewer Systems, which provided guidance on permit application requirements for regulated MS4s. MS4 permits include requirements for post-construction control of stormwater runoff in what is known as Provision C.3. The goal of Provision C.3 is for the Permittees to use their planning authorities to include appropriate source control, site design, and stormwater treatment measures in new development and redevelopment projects to address both soluble and insoluble stormwater runoff pollutant discharges and prevent increases in runoff flows from new development and redevelopment projects. This goal is to be accomplished primarily through the implementation of low impact development (LID) techniques.

Section 404 establishes a permit program, administered by USACE, to regulate the discharge of dredge or fill materials into waters of the U.S., including wetlands. Activities in waters of the U.S. that are regulated under this program include fills for development, water resource projects (such as dams and levees), infrastructure development (such as highways and airports), and conversion of wetlands to uplands for farming and forestry. CWA Section 404 permits are issued by USACE.

*Senate Bills 610 and 221*

Enacted in 2002, SB 610, which was codified in the Water Code beginning with section 10910, requires the preparation of a water supply assessment (WSA) for projects within cities and counties that propose to construct 500 or more residential units or the equivalent. SB 610 stipulates that when environmental review of certain large development projects is required, the water agency that is to serve the development must complete a WSA to evaluate water supplies that are or will be available during normal, single-dry, and multiple-dry years during a 20-year projection to meet existing and planned future demands, including the demand associated with a Proposed Project.

Enacted in 2001, SB 221, which was codified in the Water Code beginning with section 10910, requires that the legislative body of a city or county, which is empowered to approve, disapprove, or conditionally approve a subdivision map, must condition such approval upon proof of sufficient water supply. The term "sufficient water supply" is defined in SB 221 as the total water supplies available during normal, single-dry, and multiple-dry years within a 20-year projection that would meet the projected demand associated with the proposed subdivision. The definition of sufficient water supply also includes the requirement that sufficient water encompass not only the proposed subdivision, but also existing and planned future uses, including agricultural and industrial uses.

*National Pollutant Discharge Elimination System*

The Clean Water Act was amended in 1987 to include urban and stormwater runoff, which required many cities to obtain an NPDES permit for stormwater conveyance system discharges. Section 402(p) of the Clean Water Act prohibits discharges of pollutants contained in stormwater runoff, except in compliance with a NPDES permit.

## State Regulations

### *California Department of Public Health*

The Drinking Water Program, which regulates public water supply systems, is a major component of the State Department of Public Health Division of Drinking Water and Environmental Management. Regulatory responsibilities include the enforcement of the federal and State Safe Drinking Water Acts, the regulatory oversight of public water systems, issuance of water treatment permits, and certification of drinking water treatment and distribution operators. State regulations for potable water are contained primarily within the Food and Agricultural Code, the Government Code, the Health and Safety Code, the Public Resources Code, and the Water Code. Regulations are from Title 17 and Title 22 of the California Code of Regulations.

The regulations governing recycled water are found in a combination of sources including the Health and Safety Code, Water Code, and Titles 22 and 17 of the California Code of Regulations. Issues related to treatment and distribution of recycled water are generally under the influence of the RWQCB, while issues related to use and quality of recycled water are the responsibility of the California Department of Public Health.

### *California State Water Resources Control Board*

The State Water Resources Control Board (SWRCB) and nine regional water quality control boards address water quality and rights regulation. Created by the California Legislature in 1967, the five-member SWRCB protects water quality by setting statewide policy, coordinating and supporting the Regional Water Quality Control Board (RWQCB) efforts, and reviewing petitions that contest RWQCB actions. The SWRCB is also solely responsible for allocating surface water rights. Each RWQCB makes critical water quality decisions for its region, including setting standards, issuing waste discharge requirements, determining compliance with those requirements, and taking appropriate enforcement actions.

### *California Department of Water Resources*

The California Department of Water Resources (DWR) is responsible for the operation and maintenance of the California SWP. DWR is also responsible for overseeing the statewide process of developing and updating the California Water Plan (Bulletin 160 series); protecting and restoring the Sacramento–San Joaquin Delta; regulating dams, providing flood protection, and assisting in emergency management; educating the public about the importance of water and its proper use; and providing technical assistance to service local water needs.

### *California Porter–Cologne Water Quality Control Act*

The Porter-Cologne Water Quality Control Act established the SWRCB and divided the state into nine regional basins, each with a RWQCB. The SWRCB is the primary state agency responsible for protecting the quality of the state's surface and groundwater supplies, while the regional boards are responsible for developing and enforcing water quality objectives and implementation plans. The Planning Area is within the jurisdiction of Santa Ana RWQCB.

The act authorizes the SWRCB to enact state policies regarding water quality in accordance with CWA 303. In addition, the act authorizes the SWRCB to issue WDRs for projects that would discharge to state waters. The Porter-Cologne Water Quality Control Act requires that the SWRCB or the Santa Ana RWQCB adopt water quality control plans (basin plans) for the protection of water quality. A basin plan must:

- Identify beneficial uses of water to be protected;
- Establish water quality objectives for the reasonable protection of the beneficial uses; and
- Establish a program of implementation for achieving the water quality objectives.

Basin plans also provide the technical basis for determining waste discharge requirements, taking enforcement actions, and evaluating clean water grant proposals. Basin plans are updated and reviewed every three years in accordance with Article 3 of Porter-Cologne Water Quality Control Act and CWA 303(c). The local basin plans are described under Local Regulations, below.

*The Water Conservation Act of 2009 (SB X7-7)*

California legislation enacted in 2009 as SB 7 of the 7th Special Legislative Session (SB X7-7) instituted a new set of urban water conservation requirements known as "20 Percent By 2020." These requirements stipulate that urban water agencies reduce per-capita water use within their service areas by 20 percent relative to their use over the previous 10 to 15 years.

The City, via WVWD, plans to comply with the SB X7-7 requirements through a combination of on-going water conservation measures (i.e. water waste prevention ordinances, tiered water rate structure, public education and outreach, turf removal program, high-efficiency toilet and clothes washer replacement programs, rain barrel rebates, and weather based irrigation controllers) and additional recycled water development. Calculations for the 2015 UWMP determined that as of 2015, the City had met the obligations of SBX7-7 (see Local Regulations below) and surpassed the 2015 and 2020 water usage reduction targets.

*State Updated Model Landscape Ordinance (Assembly Bill 1881 (2006))*

The State's updated Model Landscape Ordinance requires cities and counties to adopt landscape water conservation ordinances by Jan. 31, 2010. In 2009, the City adopted Ordinance No. 02(2009) adding Section 8.14 Water Conservation Landscaping to their municipal code. In addition, in 2016 the City adopted Ordinance No. 01(2016) updating their municipal code related to water efficient landscaping due to ongoing the State drought.

*California Urban Water Management Planning Act*

The California Legislature enacted the Urban Water Management Planning Act of 1983 (California Water Code Sections 10610 through 10656), which is intended to support conservation and efficient use of urban water supplies at the local level. The act required that every urban water supplier that provides water to 3,000 or more customers, or over 3,000 af of water annually, to make every effort to ensure the appropriate level of reliability in its water service to meet the needs of its customers during normal, dry, and multiple-dry years. The act requires that total projected water use be compared to water supply sources over the next 20 years in five-year increments, that

planning occur for single- and multiple-dry water years, and that plans include a water recycling analysis that incorporates a description of the wastewater collection and treatment system within the agency's service area along with current and potential recycled water uses.

Applicable urban water suppliers within California are required by the Water Code to prepare and adopt an Urban Water Management Plan (UWMP) and update it every five years. A UWMP is required in order for a water supplier to be eligible for the DWR-administered state grants, loans, and drought assistance. A UWMP provides information on water use, water resources, recycled water, water quality, reliability planning, demand management measures, BMPs, and water shortage contingency planning for a specified service area or territory.

### *California Emergency Graywater Regulations*

In 2009, as part of the Governor's declared State of Emergency, Chapter 16A "Nonpotable Water Reuse Systems" was incorporated into the 2007 California Plumbing Code. Chapter 16A establishes minimum requirements for the installation of graywater systems in residential occupancies regulated by the California Department of Housing and Community Development, providing guidance and flexibility designed to encourage the use of graywater. The standards allow small graywater systems to be installed in homes without a construction permit, substantially reducing the barriers to installing small residential graywater systems in California. The purpose of the regulations is to conserve water by facilitating greater reuse of laundry, shower, sink, and similar sources of discharge for irrigation and/or indoor use; to reduce the number of noncompliant graywater systems by making legal compliance easily achievable; to provide guidance for avoiding potentially unhealthful conditions; and to provide an alternative way to relieve stress on private sewage disposal systems.

### *State Water Resources Control Board*

On May 2, 2006, the SWRCB adopted a General Waste Discharge Requirement (WDR) (Order No. 2006-0003) for all publicly-owned sanitary sewer collection systems in California with more than one mile of sewer pipe. The order provides a consistent statewide approach to reducing sanitary sewer overflows (SSOs) by requiring public sewer system operators to take all feasible steps to control the volume of waste discharged into the system, to prevent sanitary sewer waste from entering the storm sewer system, and to develop a sewer system management plan. The City's Sewer System Management Plan (SSMP) was approved by City Council in 2014 and includes an overflow emergency response plan; operation and maintenance program; fats, oils, and grease plan; design and performance standards; system capacity plan; and communications program.

### *California's Department of Resources Recycling and Recovery*

California Department of Resources Recycling and Recovery (CalRecycle) is the State's leading authority on recycling, waste reduction, and product reuse. CalRecycle plays an important role in the stewardship of California's vast resources and promotes innovation in technology to encourage economic and environmental sustainability. CalRecycle brings together the State's recycling and waste management programs and continues a tradition of environmental stewardship. Mandated responsibilities of CalRecycle are to reduce waste, promote the management of all materials to their highest and best use, and protect public health and safety and the environment.

### *California Integrated Waste Management Act (AB 939)*

AB 939, California's Integrated Waste Management Act of 1989, mandated that 50 percent of solid waste be diverted by the year 2000 through source reduction, recycling, and composting. AB 939 also established a goal for all California counties to provide at least 15 years of ongoing landfill capacity. This requires each region to prepare a source reduction and recycling element to be submitted to CalRecycle, which administers programs formerly managed by the state's Integrated Waste Management Board and Division of Recycling.

### *California Solid Waste Reuse and Recycling Access Act of 1991 (AB 1327)*

AB 1327 was established in 1991, which required CalRecycle to develop a model ordinance for the adoption of recyclable materials in development projects. Local agencies were then required to adopt the model, or an ordinance of their own, governing adequate areas for collection and loading of recyclable materials in development projects.

### *Disposal Measurement System Act of 2008 (SB 1016)*

SB 1016 maintains the 50 percent diversion rate requirement established by AB 939, while establishing revised calculations for those entitles who did not meet the 50 percent diversion rate. SB 1016 also established a per capita disposal measurement system to make the process of goal measurement, as established by AB 939, simpler, timelier, and more accurate. The new disposal-based indicator—the per capita disposal rate—uses only two factors: a jurisdiction's population (or in some cases employment) and its disposal as reported by disposal facilities.

### *Solid Waste Diversion (AB 341)*

Effective July 1, 2012, AB 341 requires that commercial enterprises that generate four cubic yards or more of solid waste weekly participate in recycling programs. This requirement also includes multifamily housing complexes of five units or more, regardless of the amount of solid waste generated each week. AB 341 is designed to reach California's recycling goal of 75 percent by the year 2020.

### *Organic Waste Reduction (SB 1383)*

Effective September 2016, SB 1383 established two organic waste disposal reduction targets tied to the 2014 baseline of 23 million tons of organic waste disposal and must be achieved by 2020 and 2025. The target is set for 2020 at 50 percent organic waste reduction from 2014 baseline (11.5 million tons allowed landfill disposal of organic waste), and for 2025 at 75 percent organic waste reduction from 2014 baseline (5.75 million tons allowed landfill disposal of organic waste). The law grants CalRecycle the regulatory authority required to achieve the organic waste disposal reduction targets and establishes an additional target that not less than 20 percent of currently disposed edible food is recovered for human consumption by 2025.

## Local Regulations

### *Los Angeles County Code*

#### Sewer

The Los Angeles County Consolidated Sewer Maintenance District (CSMD) owns and maintains the local sanitary sewers within the City. As required under the County Code, a sewer area study must be prepared for all private contract sewer projects. As stipulated in the County Code, no sewer construction permit shall be issued until the County Engineer (Section 20.32.040, County Code) and the Public Works Director (Section 20.32.420, County Code) have approved the project's final sewer plans.

#### Drainage

The Los Angeles County Code contains specific provisions to regulate drainage discharge and storm water runoff quality from unincorporated areas, which do not apply directly to Diamond Bar as a City. However, management of the regional drainage system does involve requirements established by the County Flood Control District and by the MS4 permit discussed above and in Chapter 3.8: Hydrology and Water Quality. These requirements are implemented through provisions in the City Municipal Code.

#### Solid Waste

The Los Angeles County Department of Public Works coordinates solid waste planning in the region through administration of the Integrated Waste Management Plan. In accordance with state requirements, this plan and its components establishes source reduction, recycling, and other programs necessary to achieve the reductions in per capita waste generation for disposal set in the Public Resources Code.

### *Greater Los Angeles County Region Integrated Regional Water Management Plan*

The Greater Los Angeles County Region Integrated Regional Water Management Plan (GLACR IRWM) was updated in 2014. IRWM Plans are regional plans designed to improve collaboration in water resources management. The first IRWM Plan for GLACR IRWM was published in 2006 following a multi-year effort among water retailers, wastewater agencies, stormwater and flood managers, watershed groups, the business community, tribes, agriculture, and non-profit stakeholders to improve water resources planning in the Los Angeles Basin. It provides a mechanism for: 1) coordinating, refining, and integrating existing planning efforts within a comprehensive, regional context; 2) identifying specific regional and watershed-based priorities for implementation projects; and 3) providing funding support for the plans, programs, projects, and priorities of existing agencies and stakeholders.

*Walnut Valley Water District Urban Water Management Plan (UMWP)*

The 2015 UWMP is a document that provides a summary of anticipated supplies and demands for the years 2015 to 2040. The City is served by WVWD, and therefore, included in the 2015 UWMP. The 2015 UWMP was prepared consistent with the California Urban Water Management Planning Act, SBX7-7, and the 2015 DWR Guidebook for Urban Water Suppliers.

*City of Diamond Bar Municipal Code*

Water

As part of state and regional efforts towards water conservation, the Municipal Code includes requirements for water efficient landscaping in all new developments (Chapter 8.14 and Section 22.26.010 et seq.). The code requires preparation and approval of landscaping and irrigation plans that meet specific requirements, prior to the issuance of any land use permit or building permit.

Sewer

As stipulated in Section 13.00.640 (Plan Approval Prerequisite to Issuance) in Title 13 (Utilities) of the Municipal Code, no sewer construction permit shall be issued until the City Engineer has checked and approved the plans in accordance with Section 13.00.1200 and the other applicable provisions of the Municipal Code. Section 13.00.1200 (Sewer Pans) of the Municipal Code states that before a sewer construction permit may be issued, plans for the proposed construction shall be submitted to and approved by the City Engineer, unless the City Engineer determines that plans are not necessary.

Drainage

Section 8.12.1610 of the Municipal Code addresses storm water management and discharge control. This section incorporates at the city level, the storm water management practices that are required by federal and state law, and by the Los Angeles County Code requirements. The Proposed Project would be a "planning priority project" as defined in the municipal code since it would have ten or more residences. This means that the project will require a Standard Urban Storm Water Mitigation Plan" that must identify design and management practices, including maintenance provisions, to control storm water runoff. Specific numerical performance standards must be met in the design and treatment methods.

Other portions of the Municipal Code address management of development in areas prone to flooding from drainage, but since the project area is not within one of these areas the flood zone requirements do not apply.

Solid Waste

The City Municipal Code contains provisions that implement the source reduction and recycling programs and other measures to achieve per capita waste generation for disposal in accordance with state and County programs. Section 8.16.310 specifically requires a greenwaste collection program for all residential areas, and later sections require all collectors operating under a

collection franchise within the City to comply with applicable resource recovery and diversion programs to minimize solid waste disposal at landfills.

# Impact Analysis

## SIGNIFICANCE CRITERIA

For the purposes of this EIR, a significant adverse impact would occur if implementation of the Proposed Project would:

**Criterion 1:** **Require or result in the relocation or construction of new or expanded water, wastewater treatment, storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects;**

**Criterion 2:** **Have insufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years;**

**Criterion 3:** **Result in a determination by the wastewater treatment provider that serves or may serve the project that it does not have adequate capacity to serve the project's projected demand in addition to the provider's existing commitments;**

**Criterion 4:** **Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals; or**

**Criterion 5:** **Not comply with federal, State, and local management and reduction statutes and regulations related to solid waste.**

## METHODOLOGY AND ASSUMPTIONS

The analysis for this section addresses impacts on public utilities and city infrastructure due to projected growth arising from the Proposed Project. Subsequent California Environmental Quality Act (CEQA) review at the project level may be required to determine whether significant environmental effects would result from the construction of water distribution lines, wastewater collection system components, storm drainage conveyance pipes or facilities, and any onsite storage or pumping facilities on development sites, or other utilities improvements. Project-level review will occur when proposed development plans are prepared. This analysis is based on a review of relevant local and regional plans and background information, and consultation with relevant utilities.

## IMPACTS

### Impact 3.13-1 Implementation of the Proposed Project would not require or result in the relocation or construction of new or expanded water, wastewater treatment, or storm water drainage facilities, the construction or relocation of which could cause significant environmental effects. (*Less than Significant*)

Implementation of the Proposed Project would allow for the potential development of future residential, commercial, and industrial land uses in the Planning Area. Additional population and businesses would generate additional demand for water and wastewater services, and therefore, a potential increased demand for water provision and wastewater collection, conveyance, and treatment services over currently established levels. Further, additional development has the potential to increase pervious areas, resulting in increased stormwater runoff. As discussed below, existing facilities would be adequate to serve the projected buildout population, therefore impacts resulting from the Proposed Project would be less than significant.

*Construction of Water Treatment Facilities*

Due to limited information available on the water supply, distribution, and treatment systems, this analysis focuses on the water demand changes anticipated in the Proposed Project. As previously described, the City relies on Walnut Valley Water District (WVWD) to provide reliable water supplies throughout the Planning Area. WVWD serves both potable and recycled water to the City; with recycled water comprising approximately five percent of total demand.

The anticipated water demand changes rely on per capita water consumption. As presented in WVWD's 2015 Urban Water Management Plan, Diamond Bar is currently using 144 gallons of water per capita per day (GPCD). For a planning-level water demand estimate, the expected population increase is multiplied by the per capita water consumption factor.

The City's current annual water demand is 6.77 MGD. Therefore, the Proposed Project may result in a water demand change between 2 percent and 16 percent (i.e. total net new population times expected water use; EX: 7,300 New Capita x 144 gallons per Capita per Day = 1.05 MGD). As stated in the 2015 UWMP, WVWD has adequate supplies to support growth through 2035. Therefore, any future development in the Planning Area would likely be served from these same sources as existing development and no new treatment facilities would be required.

Additionally, goals and policies in the proposed General Plan aim to conserve water by curbing demand, ensure coordinated planning for the provision of public facilities including water infrastructure, and ensure that utilities be designed and constructed to preserve the natural character of an area. Such policies would help to reduce the demand on existing treatment infrastructure and allow for meaningful consideration of potential impacts of any future decisions regarding the provision of new infrastructure. Therefore, through compliance with State and local regulations, and implementation of the proposed General Plan policies, impacts would be less than significant.

*Construction of Wastewater Treatment Facilities*

Due to minimal information available on the wastewater conveyance and treatment system infrastructure, this analysis focuses on the anticipated wastewater flow changes. As previously described, the County provides wastewater collection and treatment services to the City. More specifically, the Los Angeles County Public Works Department (LACPWD) provides operation and maintenance services on the local collection system, while Los Angeles County Sanitation District (LACSD) provides operation and maintenance services on the trunk sewers and wastewater treatment services.

Since an area-wide sewer study has not been completed in the last 10 years and additional detailed system information (i.e. sewer flow rate) was not available for review, this analysis will evaluate the changes in wastewater flows by relying on the population and water demand changes presented above. In the 1979 Wastewater Engineering: Treatment, Disposal, Reuse, Second Edition by Metcalf & Eddy, Inc., about 80 percent of the per capita water consumption becomes wastewater flows. With the known per capita water consumption presented above, the resultant wastewater flows were estimated.

There is an anticipated overall increase in wastewater flows in the Planning Area under the Proposed Project. However, the projected increase in wastewater flows, between 0.25 and 0.88 MGD (i.e. total net new population times expected water use times wastewater generation factor; EX: 7,300 New Capita x 144 gallons per Capita per Day x 80% = 0.84 MGD), is somewhat small compared to the estimated annual wastewater flow of 5.42 MGD in the city. Therefore, the Proposed Project may result in a wastewater flow increase of up to 16 percent. Due to the relatively low increase in project wastewater flow rates, no new or expanded treatment facilities would be needed to serve the population at buildout. Impacts from the proposed General Plan would therefore be less than significant.

*Construction of Storm Drainage Facilities*

Due to minimal information available on the storm drain conveyance systems, this analysis focuses on the storm water regulations and how they apply to the Planning Area. As previously described, the Los Angeles County Flood Control District (LACFCD) owns and maintains all major flood control channels. In addition, a majority of the storm drain system within the city was formally transferred through resolution to LACFCD, which maintains complete ownership and maintenance of the system. However, storm water quality is the responsibility of the City, see Chapter 3.8 Hydrology and Water Quality for additional information. According to City Staff, the local storm drain system is in good standing with no known major system deficiencies.

Storm water runoff may mobilize pollutants (e.g. trash, oil, etc.) and sediments, which contribute to pollution in rivers, lakes, and the ocean. Conversely, storm water runoff can be seen as a resource for recharging groundwater supplies. The State regulates storm water discharges with the National Pollutant Discharge Elimination System (NPDES) permits. The NPDES permit was established to ensure storm water is used as a resource, while reducing any harmful pollutants to the greatest extent possible to maintain the beneficial uses of our rivers, lakes and ocean.

The Regional Water Quality Control Boards have adopted NPDES permits to regulate storm water for municipalities. Under that permit is the Municipal Storm Water Program, which regulates storm water discharges from municipal separate storm sewer systems (MS4s) throughout California. An MS4 is defined as a conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains) owned or operated by a local agency. In this area, the Los Angeles Regional Water Quality Control Board holds the NPDES permit and Los Angeles County holds the MS4 permit. Diamond Bar is a permittee under the County's MS4 permit. The County's MS4 permit was last amended in November 2016. The permit details discharge prohibitions, effluent limitations and discharge specifications, receiving water limitations, and provisions (i.e. monitoring and reporting, watershed management programs, control measures, and total maximum daily loads). In addition, Diamond Bar is part of the Lower San Gabriel River Watershed Management Plan (Lower SGR WMP), which was developed to implement the NPDES requirements on a watershed scale.

A key provision of these regulations is that the initial (or "first flush") storm water runoff is detained and treated on-site prior to entering the County's storm drain system. First flush is the initial surface runoff during a storm event that typically contain higher concentrations of pollutants compared to the remainder of the storm. Specifically, the County requires that projects mitigate the first three-quarter inch of rainfall for each storm event and be designed to minimize the introduction of pollutants from the site runoff into the storm water conveyance system. Any new development and/or significant redevelopment in the Planning Area will be subject to these requirements.

Additionally, the City has established regulations for storm water runoff. Any new development and/or significant redevelopment is required to prepare a hydrology and hydraulic assessment of the proposed project. Part of that analysis is calculating the current velocity and volume of storm water runoff leaving the site in both the existing and proposed condition. The City requires that the velocity and volume of storm water runoff leaving the site not exceed the pre-project condition. Any new development and/or significant redevelopment in the Planning Area is subject to meeting these requirements.

From a storm drain infrastructure perspective, these regulations restrict increases in storm water runoff from any new development and/or significant redevelopment. Therefore, existing storm drain conveyance systems will not require upsizing, regardless of changes to lands use types. Further, since City staff has advised that the local storm drain system is in good standing with no known major system deficiencies, the Proposed Project will likely have minimal impacts to the existing storm drain conveyance systems. Thus, any impacts related to the construction of new stormwater drainage facilities resulting from development projected by the proposed General Plan would be less than significant through compliance with State and local regulations, as well as implementation of proposed General Plan policies.

*Proposed General Plan Policies that Address the Impact*

Land Use & Economic Development

LU-G-5. Manage development in a manner consistent with the capabilities of the City to provide public services and facilities effectively.

LU-P-5. Ensure that adequate public services, facilities, and infrastructure are available or provided to support new development, including water, wastewater, stormwater, solid waste, transportation, public safety, and parks.

LU-P-6. Require new development to pay its fair share of the public facilities and off-site improvements needed to serve the proposed use.

LU-P-52. Collaborate with public service providers and agencies including, but not limited to, the Los Angeles County Department of Parks and Recreation, Walnut Valley and Pomona school districts, Los Angeles County Department, Los Angeles County Fire Department, and Walnut Valley Water District to designate and pursue acquisition of land for public facilities as necessary to serve unmet facility needs of Diamond Bar residents.

Community Character & Placemaking

CC-P-6. Prioritize sustainability in site design. When incorporating on-site stormwater management through the use of bioswales, rain gardens, permeable pavement, and/or other available low-impact development technologies, require such features to be aesthetically integrated into the site design.

Public Facilities

PF-G-6 Ensure that public facilities and services, including water, wastewater, sewage, electricity, natural gas, and solid waste, are provided in a safe, efficient, and timely manner to meet the current and future needs of the city.

PF-P-31. Require the construction of water, sewer, drainage, and other necessary public facilities, and encourage storm water capture prior to or concurrent with new development.

PF-P-34. Ensure adequate funding and planning for needed public services and facilities in coordination with the Capital Improvement Program.

PF-P-35. Continue to communicate major development plans with utility companies and coordinate planning of extension of necessary facilities.

PF-P-37. Collaborate with the WVWD to develop future plans to expand the use of recycled water within Diamond Bar as additional recycled water supplies become available.

PF-P-40. Pursue the transfer of ownership of all portions of the storm drain system within Diamond Bar to the Los Angeles County Flood Control District (LACFCD).

PF-P-41. Work with the LACFCD to complete a drainage master plan for Diamond Bar with a view to identifying any deficiencies within the city's drainage infrastructure system, and update it periodically, as needed.

*Mitigation Measures*

None required.

### Impact 3.13-2 Implementation of the Proposed Project would have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years. (*Less than Significant*)

As discussed in Impact 3.13-1, projected demand in the Proposed Project may result in an increase as much as 1.09 MGD or result 16 percent over current demand of 6.77 MGD. As stated in the 2015 UWMP, WVWD has adequate supplies to support growth through 2035 during normal, dry, and multiple dry years. Table 3.13-6 highlights WVWD's ability to meet future water demands through 2035 in a normal year.

**Table 3.13-6: Supply and Demand for the Normal Year**

| | *2020 (AFY)* | *2025 (AFY)* | *2030 (AFY)* | *2035 (AFY)* |
|---|---|---|---|---|
| Supply | 23,359 | 24,609 | 26,054 | 27,524 |
| Demand | 21,995 | 23,199 | 24,594 | 26,012 |
| Difference | 1,364 | 1,410 | 1,460 | 1,512 |

Note: The 2015 WVWD Urban Water Management Plan projects water usage through 2035. The UWMP is updated every 5 years and projects usage over a 20-year period. Water usage for 2040 is not available.

*Source: Walnut Valley Water District 2015 Urban Water Management Plan, Table 27, 2016.*

As shown, the WVWD has identified adequate supply from existing water sources entitlements to meet demand through 2035. The 2015 UWMP shows that in a normal year, demand for potable and recycled water could be met through imported water and local groundwater, respectively.

The 2015 UWMP also includes projections showing adequate supply for multiple dry years, as shown in Table 3.13-7. In the event of a water shortage, WVWD would rely on their Water Shortage Supply Plan during dry years. During a single dry year, it is assumed that the potable water projected demand in the normal year is reduced by 10 percent. In a multiple dry year scenario, it is assumed that the potable water projected demand in the normal year is reduced by 10 percent in the first two dry years; then reduce demand by 25 percent during the third dry year. Under this case, Table 3.13-7 shows that there is sufficient supply to meet demands in multiple dry years. While a series of dry years would reduce supply, the WVWD has the potential to utilize multiple sources and offset normal supplies with additional recycled water and conservation efforts without seeking additional entitlements or water sources.

**Table 3.13-7: Supply and Demand for the Normal Year**

| *Year* | *Item* | *2020 (AFY)* | *2025 (AFY)* | *2030 (AFY)* | *2035 (AFY)* |
|---|---|---|---|---|---|
| 1 | Supply | 20,810 | 20,810 | 20,810 | 20,810 |
| | Demand | 17,421 | 18,032 | 18,662 | 19,316 |
| | Difference | 3,389 | 2,778 | 2,148 | 1,494 |
| 2 | Supply | 20,340 | 20,340 | 20,340 | 20,340 |
| | Demand | 17,421 | 18,032 | 18,662 | 19,316 |
| | Difference | 2,919 | 2,308 | 1,678 | 1,024 |
| 3 | Supply | 16,603 | 16,603 | 16,603 | 16,603 |
| | Demand | 14,518 | 15,026 | 15,552 | 16,097 |
| | Difference | 2,085 | 1,577 | 1,051 | 506 |

Note: The 2015 WVWD Urban Water Management Plan projects water usage through 2035. The UWMP is updated every 5 years and projects usage over a 20-year period. Water usage for 2040 is not available.

*Source: Walnut Valley Water District 2015 Urban Water Management Plan, Table 29, 2016.*

Implementation of policies in the proposed General Plan would reduce the overall existing and future water usage in the Planning Area by curbing demand for domestic and commercial purposes and promoting water conservation strategies. Proposed policies also seek to ensure the long-term quality and maintenance of waters supplies, while exploring new options for the capture and utilization of stormwater. Thus, future development anticipated by the proposed General Plan has been projected to be accommodated by existing water sources and entitlements, compliance with local and regional water management plans, as well as further compliance with SBx7-7 and implementation of proposed General Plan policies. Impacts would therefore be less than significant.

### *Proposed General Plan Policies that Address the Impact*

Policies LU-G-5, LU-P-5, LU-P-52, PF-G-6, PF-P-31, PF-P-34, and PF-P-37 as discussed under Impact 3.13-1, in addition to the following:

<u>Public Facilities</u>

PF-G-7. Maintain adequate systems for potable water supply and distribution to meet the current and future needs of the city.

PF-P-36. Work with the Walnut Valley Water District (WVWD) to assess the condition of water distribution and storage systems within Diamond Bar and plan for refurbishments as needed.

### *Mitigation Measures*

None required.

### Impact 3.13-3 Implementation of the Proposed Project would not result in a determination by the wastewater treatment provider that serves or may serve the project that it does not have adequate capacity to serve the project's projected demand in addition to the provider's existing commitments. (*Less than Significant*)

The proposed General Plan projects future residential and commercial uses in the Planning Area that could generate additional wastewater. Therefore, wastewater collection, conveyance, and treatment needs could increase over current levels. As discussed under Impact 3.13-1, due to the relatively low increase in project wastewater flow rates, no new or expanded treatment facilities would be needed to serve the population at buildout.

Additionally, as presented in Impact 3.13-1 and 3.13-2, goals and policies in the proposed General Plan aim to conserve water by curbing demand for domestic and commercial purposes, promoting water conservation strategies, ensuring coordinated planning for the provision of public facilities including water infrastructure, and ensure that utilities be designed and constructed to preserve the natural character of an area. Such policies would help to reduce the demand on existing treatment infrastructure and allow for meaningful consideration of potential impacts of any future decisions regarding the provision of new infrastructure.

In addition, current regulations require compliance with water quality standards and would not allow development without adequate utility capacity, including wastewater treatment capacity. Potential future development projects would be reviewed by the City and LACSD to determine that sufficient capacity exists to serve the development. Therefore, through compliance with State and local regulations, and implementation of the proposed General Plan policies, impacts would be less than significant.

*Proposed General Plan Policies that Address the Impact*

Policies LU-P-5, LU-P-52, PF-G-6, PF-P-31, and PF-P-34 as discussed under Impact 3.13-1, in addition to the following:

<u>Public Facilities</u>

PF-P-38. Work with the Los Angeles County Public Works Department (LACPWD) and Los Angeles County Sanitation District (LACSD) to ensure that wastewater treatment conveyance systems and treatment facility capacity is available to serve planned development within Diamond Bar.

PF-P-39. Continue to monitor and assess wastewater and sewer system operations to identify and subsequently address system deficiencies.

*Mitigation Measures*

None required.

### Impact 3.13-4 Implementation of the Proposed Project would not generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals. (*Less than Significant*)

As described above, the City receives refuse pickup and disposal service from Waste Management, Inc. for single-family residential uses and Valley Vista Services, Inc. for commercial and multi-family residential uses. Once collected from areas within the City, the refuse is currently delivered to El Sobrante Landfill and Olinda Alpha Landfill. The 2017 Annual Report for El Sobrante Landfill found that at the current rate of waste disposal, the landfill had 42 years of site life remaining. The Olinda Alpha Landfill has enough projected capacity to serve residents and businesses until 2030. While buildout of the Proposed Project extends until 2040, Valley Vista Services delivers refuse to both landfills and Waste Management delivers refuse only to El Sobrante Landfill, which has additional capacity through 2059. Therefore, solid waste generated under the Proposed Project would reasonably be within the capacity of local infrastructure.

The Los Angeles County Department of Public Works prepares and administers the Countywide Integrated Waste Management Plan. For the current planning period from 2017 to 2032, the IWMP Annual Report estimates that a shortfall in permitted solid waste disposal capacity is not anticipated. The IWMP Report also states that the cumulative need for Class III landfill disposal capacity, approximately 126.4 million tons in 2032, will not exceed the 2017 remaining permitted Class III landfill capacity of 167.6 million tons. This data is provided at the County level.

Given Waste Management and the County's ability to meet its disposal targets, as well as the remaining capacity in El Sobrante and Olinda Alpha landfills, meeting the collection, transfer, recycling, and disposal needs of the Proposed Project would not result in adverse impacts on landfill facilities. It is also likely that changes in regulations will occur that will decrease the need for landfill capacity through new recycling measures (e.g. conversion technology facilities, material recovery facilities, waste to resource projects, etc.). Compliance with solid waste regulations and proposed General Plan policies would further address potential impacts. Therefore, impacts would be less than significant.

*Proposed General Plan Policies that Address the Impact*

Policies PF-G-6, PF-P-31, PF-P-34, PF-P-38, and PF-P-39 as discussed under Impacts 3.13-1 and 3.13-3.

*Mitigation Measures*

None required.

### Impact 3.13-5 Implementation of the Proposed Project would comply with federal, State, and local management and reduction statutes and regulations related to solid waste. (*Less than Significant*)

AB 939 mandated that California generate a 25 percent diversion rate by 1995 and a 50 percent diversion rate by 2000. In 2005, California diverted 52 percent of its waste from landfills; therefore, the State, including the City, reached this goal and is in compliance with this law. AB 341, adopted in 2012, requires that commercial enterprises that generate four cubic yards or more of solid waste and multi-family housing complexes of five units or more weekly participate in recycling programs in order to meet California's goal to recycle 75 percent of its solid waste by 2020. SB 1383, adopted in 2016, establishes goals of 50 percent organics waste reduction by 2020 and 75 percent reduction by 2025.

As described in Impact 3.14-6, waste collection services are provided by Waste Management, Inc. and Valley Vista Services which includes solid waste, recycling, e-waste, and hazardous waste. As of 2016, Waste Management diverted 47 percent of waste. Valley Vista Services has met the 50 percent diversion goal under AB 939. The City of Diamond Bar currently offers multiple specialized recycling programs, including a limited-run free recycling bins for businesses program, and two recycling centers are located in the City. The Proposed Project includes multiple policies aimed at achieving solid waste reduction targets established in AB 939, AB 341, and SB 1383, including incorporation of solid waste diversion goal performance standards into contracts with the City's franchise waste haulers, requiring commercial and industrial generators to develop and implement recycling plans, and educating Diamond Bar residents and businesses about recycling, composting, and waste reduction programs.

Development of future land uses, as projected in the proposed General Plan, would be required to comply with federal, State, and local statutes and regulations related to solid waste. Furthermore, the policies provided in the proposed General Plan regarding solid waste disposal and associated public facilities would further ensure compliance with applicable regulations. Therefore, impacts would be less than significant.

*Proposed General Plan Policies that Address the Impact*

Policies PF-G-6, PF-P-31, PF-P-34, as discussed under Impacts 3.13-1 and 3.13-3, in addition to the following:

<u>Community Health & Sustainability</u>

CHS-P-46. In order to achieve compliance with the source reduction goals set forth under Assembly Bill (AB) 939 amendments thereto, incorporate solid waste diversion goal performance standards into the contracts with the City's franchise waste haulers, and enforce the City's Construction and Demolition Waste Ordinance.

CHS-P-47. Reduce the disposal of household hazardous wastes in landfills through continued cooperation with waste pick-up service providers, the County Sanitation Districts, and the Los Angeles County Department of Public Works in the provision of curbside pick-up and annual household waste round up events.

CHS-P-48. Continue to promote the safe disposal of household hazardous waste through public education and incentives.

CHS-P-49. Continue to educate residential, commercial, and industrial generators about source reduction and recycling programs and encourage their participation in these programs through promotional campaigns and incentives.

CHS-P-50. Encourage generators of edible food to have contracts or agreements with food rescue organizations to minimize edible food from being disposed of or destroyed.

CHS-P-51. Encourage residents and businesses to compost leaves, grass clippings, food waste, and other organic materials by promoting existing food waste pickup services, residential waste hauler rate composting discounts, and residential backyard composting.

CHS-P-52. Collaborate with the City's contract waste haulers to educate and encourage residents and businesses about waste reduction strategies.

CHS-P-53. Require commercial and industrial generators to develop and implement a source reduction and recycling plan tailored to their individual waste streams.

*Mitigation Measures*

None required.

# 4 Alternatives Analysis

The Proposed Project is described and analyzed in Chapters 3.1 through 3.13 of this EIR with an emphasis on potentially significant impacts and recommended mitigation measures to avoid those impacts. The California Environmental Quality Act (CEQA) Guidelines require an EIR to include the description and comparative analysis of a range of alternatives to the Proposed Project that could feasibly attain the objectives of the Proposed Plan, while avoiding or substantially lessening potential impacts. The CEQA Guidelines also require that the environmentally superior alternative be designated. If the alternative with the least environmental impact is the No Project Alternative, then the EIR must also designate the next most environmentally superior alternative.

The following discussion is intended to inform the public and decision makers of the feasible alternatives that would avoid or substantially lessen significant effects of the Proposed Project, and to compare such alternatives to the Proposed Project. Section 15126.6 of the CEQA Guidelines states that:

> *An EIR shall describe a range of reasonable alternatives to the project, or the location of the project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives. An EIR need not consider every conceivable alternative to a project. Rather it must consider a reasonable range of potentially feasible alternatives that will foster informed decision making and public participation.*

The following discussion includes an evaluation of two alternatives to the Proposed Plan as well as the No Project Alternative. CEQA Guidelines Section 15126.6(e) requires consideration of a "No Project Alternative" in every EIR. The No Project Alternative is a scenario in which the Proposed Project (General Plan Update) is not adopted and implementation of the existing General Plan continues through 2040. Consistent with CEQA Guidelines Section 15126.6(a), the other alternatives selected for consideration in this analysis are Alternative 1, with a Town Center at Diamond Bar Boulevard and Golden Springs Drive; and Alternative 2, with a Town Center at the southern portion of the Golf Course.

# 4.1 Background on Development of Alternatives

EIR Alternatives were developed in line with CEQA Guidelines, and based on feedback from the community. As part of the proposed General Plan update process, an evaluation of potential alternatives was conducted in mid-2017 and a final report was issued in January 2018 (Dyett and Bhatia, 2018). That process informed development of the preferred alternatives for evaluation in this EIR. Three alternatives representing different approaches to accommodating future growth and development in Diamond Bar were chosen for evaluation and public review, and were presented in the report. The alternatives each reflected the recommendations of the General Plan Advisory Committee (GPAC), Planning Commission, and City Council, as well as input from the community. The primary difference between the alternatives was the location of the proposed Town Center. The analyses in the report addressed population, jobs, housing, transportation, economics, and utility infrastructure.

In the spring of 2017, City staff and the consultant team developed three distinct Preliminary Concepts for the General Plan Advisory Committee (GPAC) to consider: Concept 1, with a Town Center at Diamond Bar Boulevard/Grand Avenue; Concept 2, with a Town Center at Diamond Bar Boulevard/Golden Springs Drive; and Concept 3, with a Town Center to be developed at the Golf Course. These Preliminary Concepts were carefully informed by the existing conditions research; community feedback from the survey, workshop and GPAC; and priorities set by the Planning Commission and City Council. They were designed to demonstrate three distinct approaches to incorporating a Town Center in Diamond Bar, while also accommodating anticipated future growth in the community and preserving existing neighborhoods and other community assets.

At the June 2017 GPAC meeting, Concept 1 was rejected because it was generally agreed that regional traffic cutting through the City on Grand Avenue would thwart efforts to create a walkable downtown in that location. This assessment led to the formulation of three modified options for consideration: the concept with the Town Center at Diamond Bar Boulevard/Golden Springs Drive was relabeled Option 1[1]; Option 2 depicted the Town Center on only the portion of the golf course south of Grand Avenue, while the portion north of Grand would serve as a park or downsized golf course; and Option 3 contemplated the Town center on the portion of the golf course north of Grand, while the portion south of Grand would be repurposed as a park.

These three "final" alternatives, were then presented to the GPAC at a meeting in November 2017, and following this, to a joint meeting of the City Council and the Planning Commission in January 2018. The joint bodies selected a variation of Alternative 1 as the Preferred Alternative; more precisely, a "Community Core Overlay" was defined and added to the Preferred Alternative to prescribe how the golf course should be repurposed in the event that Los Angeles County ever decides to cease golf course operations on that property.

The proposed General Plan (Proposed Project) and EIR Alternatives 1 and 2 were derived from the process summarized above. The proposed General Plan (Proposed Plan) is modeled after Option 1 in the earlier "Alternatives Evaluation" document published in January 2018 which proposes a new

[1] The options referenced here were originally labeled as "Alternatives" when presented to the GPAC in June 2017, and to the Planning Commission/City Council joint meeting in November 2017. The editorial decision to refer to them as Options 1 through 3 was made to avoid confusion with the EIR Alternatives analyzed in this chapter.

Town Center at Diamond Bar Boulevard and Golden Springs Drive. There are a few key differences between the proposed General Plan and the earlier Option 1. Options 1 and 2 propose a 105-acre transit oriented mixed use-designated neighborhood adjacent to the Metrolink station; under the proposed General Plan, only 33 acres of this area would be designated as transit oriented mixed use and adjacent land uses would not change. The Golf Course would retain its designation under the proposed General Plan and Alternative 1, but the proposed General Plan also applies a Community Core Overlay in the event that Los Angeles County ceases operation of the Golf Course. Alternatives 1 and 2 were modeled after Options 1 and 2 from the 2018 Alternatives Evaluation document, respectively.

As discussed below, the methodology in calculating buildout projections slightly differs between the 2018 Alternatives Evaluation and this EIR; therefore, differences in population projections can be partially attributed to methodology rather than substantive changes between the Alternatives. The Proposed Project, Alternative 1, Alternative 2, and the No Project Alternative are discussed in more detail below. The Proposed Project consists of the proposed Diamond Bar General Plan 2040 and Climate Action Plan 2040. Alternatives 1 and 2 would also include the Climate Action Plan, but it would not be included in the No Project Alternative as the City of Diamond Bar does not presently have a Climate Action Plan.

## 4.2 Description of Alternatives

CEQA Section 15126.6(f) states that alternatives in an EIR should be governed by a "rule of reason" and requires the EIR to set forth alternatives necessary to permit a reasoned choice, that would avoid or substantially lessen any significant effects, and that could feasibly attain most of the project objectives. The project objective is to implement the Diamond Bar Community's Vision and the seven Guiding Principles, which are further detailed below.

The Community Vision forms the basis for the proposed General Plan's policies. The vision is an expression of the collective hopes and desires that members of the Diamond Bar community have for the City's future, and was formed from all of the input shared by community members throughout the planning process:

> *In 2040, Diamond Bar has a balance of housing and retail choices, ample job and business opportunities, and an abundance of options for gathering and recreation. A lively Town Center provides community members with access to local services, entertainment, employment, and homes in an attractive, walkable environment. Diamond Bar continues to welcome and celebrate cultural diversity, and maintains a safe, quiet, and family-friendly atmosphere where residents of all ages and abilities are happy and healthy and live sustainably. Through thoughtful planning, collaboration, and stewardship, the community is able to meet the needs of current and future generations, both growing as a city and preserving the strong connections and environmental resources that define its "country living" identity.*

The following Guiding Principles support the community vision and provide direction for the policies in the proposed General Plan.

1. **Maintain a welcoming, safe small-town feel.** Continue to cultivate a welcoming, safe small-town feel that is inclusive of Diamond Bar's diverse and changing population while preserving existing neighborhoods.
2. **Promote a family-friendly community.** Promote Diamond Bar's strong and high performing school system, support the City's youth activities and provide affordable housing choices for families to continue to make Diamond Bar a desirable place for families.
3. **Create an inviting Town Center.** Foster the development of a vibrant, pedestrian-oriented Town Center in Diamond Bar that serves as a place for Diamond Bar's residents to shop, dine, and gather.
4. **Develop attractive commercial centers and thriving businesses.** Help Diamond Bar's existing commercial centers and businesses to thrive, and attract new businesses to centrally located focus areas in order to serve the daily needs of residents.
5. **Establish a balanced circulation network.** Improve mobility for all residents, visitors, and workers by providing a diversity of safe and convenient transportation options in a cohesive network, including active transportation, transit, and automobile facilities.
6. **Support Healthy and Sustainable Lifestyles.** Promote human and community health and environmental quality through the provision of parks and open spaces, community programs and services, the preservation of local and regional environmental resources, and the reduction of the greenhouse gas emissions.
7. **Foster a strong, collaborative community.** Provide opportunities for gatherings among friends, families, and the community at large and encourage all members of the community to participate in planning and decision-making for the future.

## NO PROJECT ALTERNATIVE

Consistent with Section 15126.6(e)(2) of the CEQA Guidelines, the No Project Alternative represents what would be reasonably expected to occur in the foreseeable future if the Proposed Project, including the Climate Action Plan, were not adopted and the City's current General Plan was left unchanged and in use. This alternative would retain all current land use designations and definitions from the current General Plan as amended to date, and future development in the Planning Area would continue to be subject to existing policies, regulations, development standards, and land use designations of the existing Diamond Bar General Plan. Specifically, there would be no new Town Center Mixed Use, Neighborhood Mixed Use, Transit Oriented Mixed Use, or Community Core Overlay land use designations. All Proposed Project change areas as identified in the Proposed Project would retain their existing 1995 General Plan designations. Policies concerning topics such as transportation, economic development, parks, open space, the environment, climate change, health, and housing would also remain unchanged.

Overall, the No Project Alternative is projected to result in approximately 57,790 residents, 19,643 housing units, and 18,855 jobs in Diamond Bar by 2040. This represents 63 fewer residents, 730 new housing units, and 4,150 new jobs compared to existing conditions and 8,895 fewer residents,

3,023 fewer housing units, and 2,889 fewer jobs than the Proposed Project in 2040. The No Project Alternative is depicted in Figure 4-1.

Buildout calculations of new development under the No Project Alternative assumed maximum allowable residential density/intensity and the midpoint of allowable non-residential density/intensity for each land use designation under the 1995 General Plan. New development is expected to only occur on opportunity sites identified by the Proposed Project (with the exception of the four focus areas), and it was assumed that 75 percent of the opportunity sites would develop by 2040. Population growth in 2040 under the No Project Alternative assumed a standard vacancy rate of five percent and 3.097 persons per occupied unit. Calculation of existing and future jobs assumed job densities of 400 square feet per retail employee, 350 square feet per office employee, and 500 square feet per industrial employee. The same assumptions were used to calculate buildout of the Proposed Project in 2040.

## ALTERNATIVE 1: NEW TOWN CENTER AT DIAMOND BAR BOULEVARD/GOLDEN SPRINGS DRIVE

Alternative 1, as shown in Figure 4-2, includes a Town Center along Diamond Bar Boulevard between SR-60 and Golden Springs Drive, with the new Sprouts/Ross center on the former Kmart site. The Golf Course would retain its designation. Alternative 1 includes the same land use designations as the proposed General Plan, with the exception of the Community Core Overlay. As discussed in Section 4.1 above, Alternative 1 is the most similar to the Proposed Project, with two key differences. Alternative 1 does not include the Community Core Overlay, which assumes high residential growth. Additionally, the 105-acre transit-oriented mixed-use area near the Metrolink station would be reduced to 33 acres under the Proposed Project.

Overall, Alternative 1 is projected to result in approximately 63,008 residents, 21,395 housing units, and 19,369 jobs in Diamond Bar by 2040. This represents 5,150 new residents, 2,500 new housing units, and 4,700 new jobs compared to existing conditions and 2,823 fewer residents, 1,272 fewer housing units, and 2,375 fewer jobs than the Proposed Project in 2040.

Buildout calculations of new development under Alternative 1 assumed the midpoint of allowable density/intensity for each land use designation. New development is expected to only occur on opportunity sites, and it was assumed that 75 percent of the opportunity sites would develop by 2040. Population growth in 2040 under Alternative 1 assumed a standard vacancy rate of five percent and 3.1 persons per occupied unit (from the 2010 United States Census). Calculation of existing and future jobs assumed job densities of 500 square feet per retail employee, 300 square feet per office employee, and 700 square feet per industrial employee. Buildout projections and assumptions were obtained from the Alternatives Evaluation, completed in January 2018.

## ALTERNATIVE 2: NEW TOWN CENTER AT GOLF COURSE (SOUTH)

Alternative 2 includes a Town Center in the southern portion of the Golf Course and would designate approximately 118 acres of the northern portion of the Golf Course as new parkland. The replacement of recreational/park space from the Golf Course would likely be required. The Diamond Bar Boulevard and Golden Springs Drive area would retain a General Commercial designation. Alternative 2 includes similar land use designations as the proposed General Plan, with the exception of the Community Core Overlay.

Overall, Alternative 2 is projected to result in approximately 63,277 residents, 21,486 housing units, and 21,141 jobs in Diamond Bar by 2040. This represents 5,450 new residents, 2,600 new housing units, and 6,400 new jobs compared to existing conditions and 3,408 fewer residents, 1,181 fewer housing units, and 603 fewer jobs than the Proposed Project in 2040.

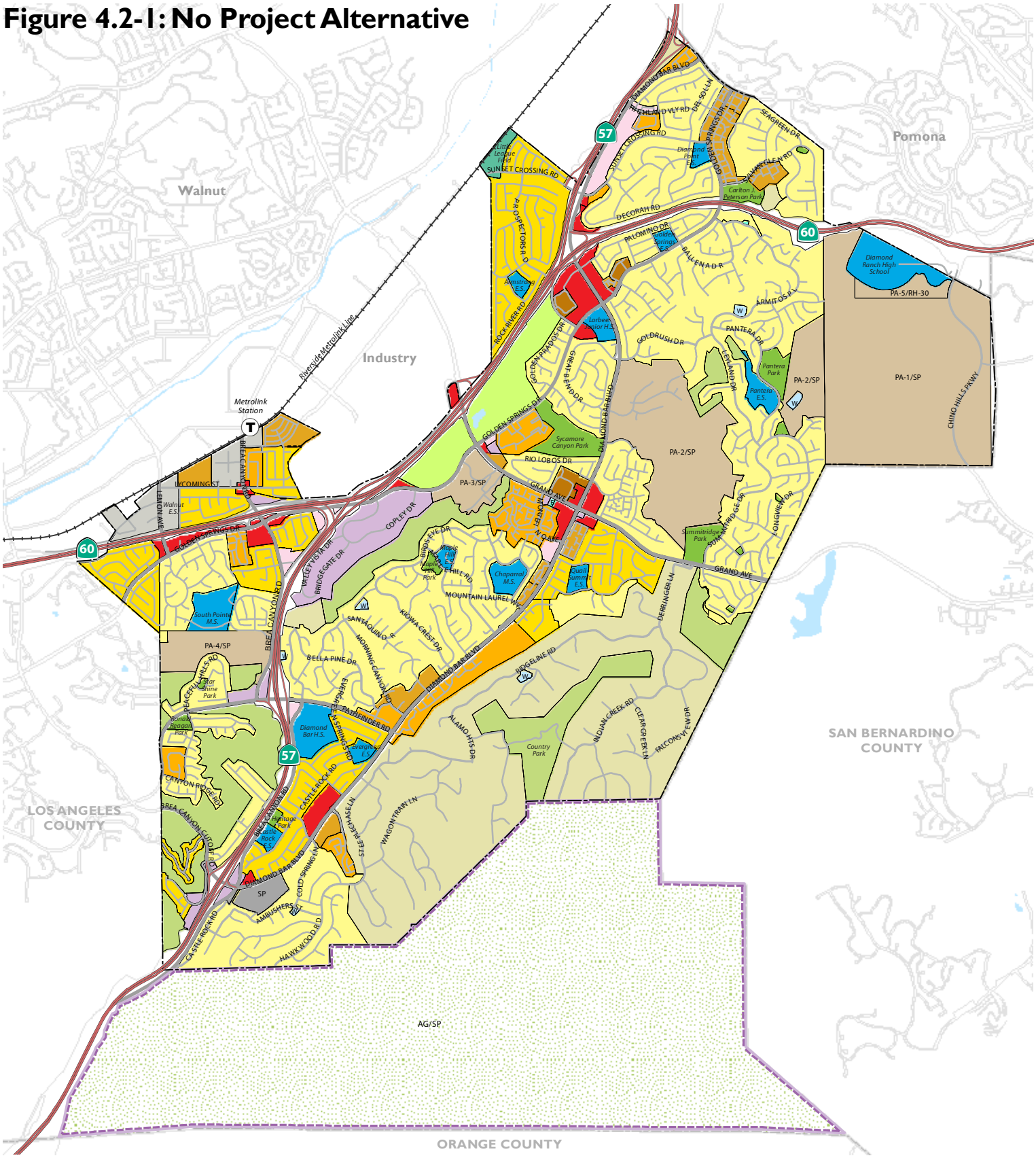
Buildout calculations of new development under Alternative 2 assumed the midpoint of allowable density/intensity for each land use designation. New development is expected to only occur on opportunity sites, and it was assumed that 75 percent of the opportunity sites would develop by 2040. Population growth in 2040 under Alternative 2 assumed a standard vacancy rate of five percent and 3.1 persons per occupied unit (from the 2010 United States Census). Calculation of existing and future jobs assumed job densities of 500 square feet per retail employee, 300 square feet per office employee, and 700 square feet per industrial employee. Buildout projections and assumptions were obtained from the Alternatives Evaluation, completed in January 2018.

**Table 4.2-1: Comparison of Key Characteristics**

| | *Existing (2016)* | *Proposed Project (2040)* | *No Project Alternative* | *Alternative 1* | *Alternative 2* |
|---|---|---|---|---|---|
| **Population** | **57,853** | **66,685** | **57,790** | **63,008** | **63,277** |
| **Housing Units** | **18,913** | **22,667** | **19,643** | **21,395** | **21,486** |
| Single-Family | 13,252 | 13,394 | 13,314 | 13,336 | 13,331 |
| Multi-Family | 5,661 | 9,273 | 6,330 | 8,059 | 8,155 |
| **Non-Residential (1,000 sqft)** | **5,564** | **7,182** | **6,277** | **7,429** | **8,178** |
| Retail | 587 | 1,194 | 619 | 3,971 | 4,515 |
| Office | 2,407 | 2,927 | 2,943 | 3,458 | 3,663 |
| Industrial | 1,053 | 850 | 1,058 | - | - |
| Other | 1,518 | 2,212 | 1,657 | - | - |
| **Jobs** | **14,702** | **21,744** | **18,855** | **19,369** | **21,141** |
| Retail | 1,467 | 3,079 | 1,548 | 7,943 | 9,030 |
| Office | 7,334 | 11,436 | 11,049 | 11,426 | 12,111 |
| Industrial | 2,106 | 1,700 | 2,116 | - | - |
| Other | 3,795 | 5,529 | 4,142 | - | - |

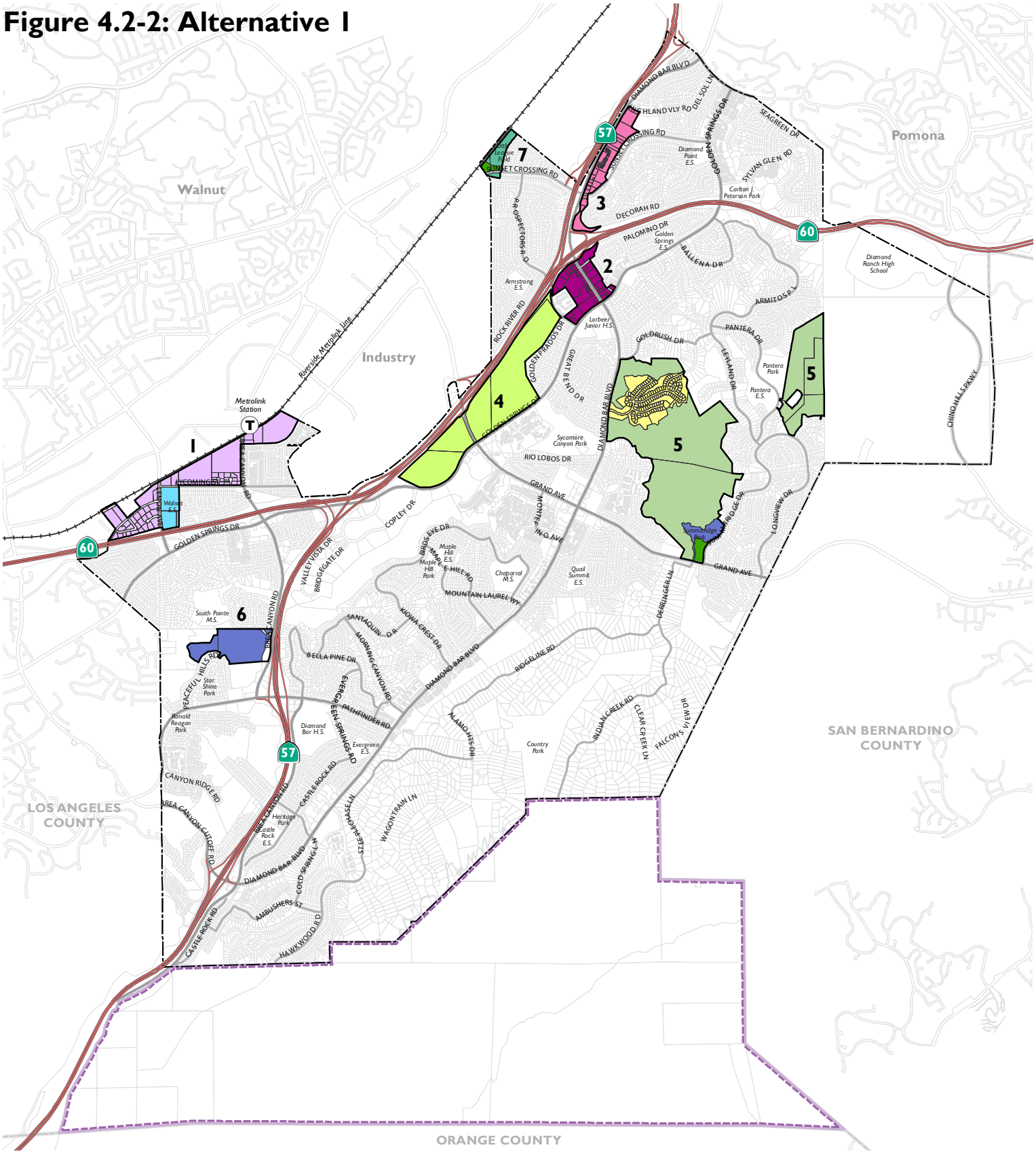
*Source: CA Department of Finance, 1/1/2015; Dyett and Bhatia, 2017; Los Angeles County Assessor, 2014; the 2015 Q2 California Employment Development Department.*

# Figure 4.2-1: No Project Alternative



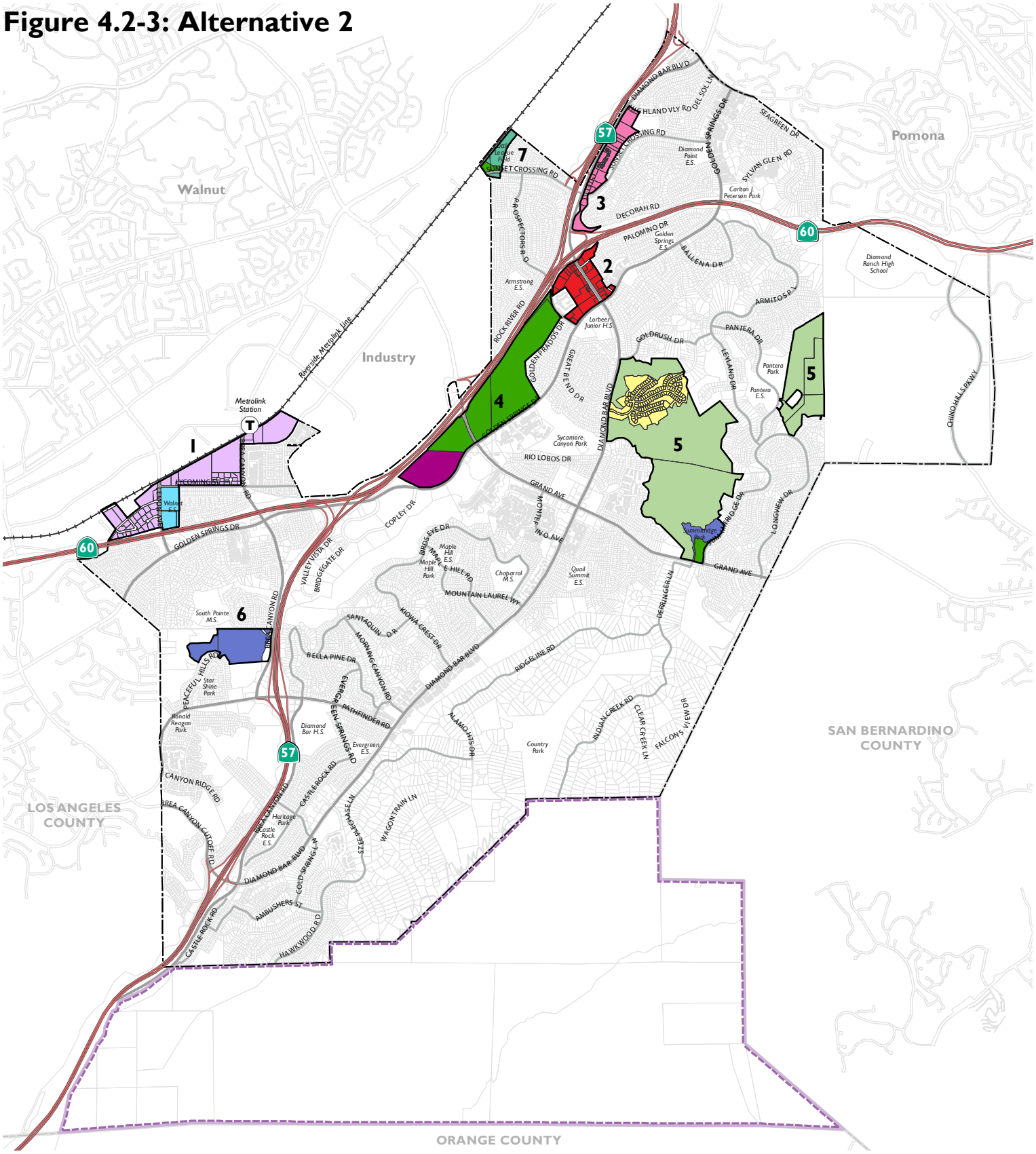

*Source: City of Diamond Bar 2019; Dyett & Bhatia, 2019*

# Figure 4.2-2: Alternative 1




*Source: City of Diamond Bar 2019; Dyett & Bhatia, 2019*

# Figure 4.2-3: Alternative 2




Low Density Residential
Neighborhood Mixed Use
Town Center Mixed Use
Transit Oriented Mixed Use
General Commercial
Office
School
Public Facility
Park
Golf Course
Open Space
Private Recreation
Planned Area/Specific Plan
Change Areas
City of Diamond Bar
Sphere of Influence
County Boundary

0 0.375 0.75 1.5
MILES

*Source: City of Diamond Bar 2019; Dyett & Bhatia, 2019*

# 4.3 Impact Analysis of Alternatives

This section provides a qualitative analysis of the potential environmental impacts of each Alternative relative to existing conditions, and compares their impacts with the impacts of the Proposed Project. The discussions are arranged by resource topic and address the same significance criteria used to evaluate the Proposed Project in Chapter 3 of this EIR. It is assumed that Alternatives 1 and 2 would generally include the same policies as the Proposed Project, with the exception of site-specific policies that would not apply due to differences in planned land use.

## AESTHETICS

There are important viewsheds within the Planning Area, such as those of hillsides and natural resources, that contribute to the aesthetic quality of Diamond Bar. All Alternatives would be consistent with applicable zoning and other regulations governing scenic quality in urbanized areas, including the Diamond Bar Municipal Code Section 22.16.130 and Chapter 22.22 and Citywide Design Guidelines. Existing regulations contain view protection provisions and address management of hillside development in Diamond Bar, including the protection of views and view corridors to and from hillside areas. Alternatives 1 and 2 would also include proposed General Plan policies related to protection of scenic views and open space resources, preservation of existing neighborhoods, and pedestrian-oriented development. Alternatives 1 and 2 would have similar impacts as the Proposed Project on scenic vistas and the visual character of the Planning Area given that both Alternatives propose similar land use changes as the Proposed Project, with the exception of redevelopment of the Golf Course under Alternative 2. Assuming Los Angeles County does not cease operation of the golf course, this area would remain unchanged under all other Alternatives, including the No Project Alternative. If Los Angeles County does decide to cease operation of the golf course, under the Proposed Project the Community Core Overlay and proposed General Plan policies would require a master plan to guide future development in this area and minimize impacts to scenic resources.

The No Project Alternative would retain the 1995 designation of Planning Area 2, which consists of 424 acres in two non-contiguous, steeply-sloped, vacant natural areas in the eastern portion of the Planning Area. No development has yet occurred in Planning Area 2 but would be permitted under the No Project Alternative. Compliance with Diamond Bar Municipal Code regulations would reduce potential impacts associated with development in this area to a level that is less than significant. Land use changes and proposed General Plan policies included in all other Alternatives would support the preservation of open spaces by designating areas formerly designated as Planning Areas or Low Density Residential as Open Space, and therefore would reduce impacts of the No Project Alternative on scenic vistas.

The No Project Alternative does not propose any land use changes, and policies in the proposed General Plan and other Alternatives are intended to complement and further the intent of these provisions regulating scenic quality and resources. The non-urbanized Sphere of Influence would be designated as a Significant Ecological Area under the Proposed Project, Alternative 1, and Alternative 2, and is protected by the Los Angeles County General Plan and Municipal Code under the No Project Alternative. Therefore, like the Proposed Project, all Alternatives would have a less than significant impact on the existing visual character or quality of public view and would not conflict with applicable regulations governing scenic quality. As discussed, the potential for development in Planning Area 2 would make impacts under the No Project Alternative slightly

more significant than under all other Alternatives, but compliance with existing local regulations relating to hillside management, development review, and subdivision design would ensure than impacts are ultimately less than significant.

Given that no adopted State scenic highway is located in Diamond Bar, and that adjacent land uses to SR-57 are undergoing minimal changes or development as part of the proposed General Plan and Alternatives (and no changes under the No Project Alternative), each of the Alternatives, including the Proposed Project, would have no impact on scenic resources within a State scenic highway.

New development resulting from implementation of any of the Alternatives would necessitate the use of additional light fixtures and would contribute to existing conditions of light and glare. Most new development resulting from the Proposed Project and Alternative 1 would take place in or near developed and urbanized areas, where moderate light and glare already exist, and would not be out of character with the urban environment. Under Alternative 2, a new Town Center would be developed in the southern portion of the Golf Course and would therefore increase light and glare in this area compared to existing conditions and the Proposed Project. Compliance with the Diamond Bar Municipal Code and implementation of proposed General Plan policies related to buffering between development and sensitive habitats and between new development and existing uses would reduce potential impacts of new development under Alternatives 1 and 2 to a level that is less than significant, similar to the Proposed Project. The No Project Alternative does not propose any land use changes and would result in reduced development compared to the Proposed Project. Any development associated with the No Project Alternative would be required to comply with provisions within the Diamond Bar Code of Ordinances that would limit light and glare for new non-residential and residential development. Therefore, all Alternatives would have a less than significant impact on light and glare.

## AIR QUALITY

The No Project Alternative and Alternative 1 would result in less development than the Proposed Project, and therefore, would result in less growth at buildout. Alternative 2 would also result in less population, housing, and jobs growth than the Proposed Project but would increase non-residential development. As the Proposed Project would be less than significant with respect to consistency with the South Coast Air Quality Management District (SCAQMD) Air Quality Management Plan, and the General Plan Policies will remain the same, it is anticipated that the No Project Alternative, Alternative 1 and Alternative 2 would also be consistent with the AQMP. Compliance with CARB motor vehicle standards, SCAQMD regulations for stationary sources and architectural coatings, and Title 24 energy efficiency standards would reduce construction and operational emissions of criteria air pollutants and would ensure that Alternative 2 would be consistent with the AQMP despite increased non-residential development. Therefore, all alternatives would result in a less than significant impact on the implementation of the SCAQMD AQPM.

The No Project Alternative and Alternative 1 would result in less development than the Proposed Project, and therefore, would result in less construction and operational GHG emissions at buildout. Increased non-residential development under Alternative 2 would have the potential to increase construction and operational GHG emissions at buildout compared to the Proposed Project. With respect to construction related regional emissions, because individual development

projects under the Alternatives would be similar in size/scope to the Proposed Project, just not as many in number, the potential for similar construction intensity under each of the Alternatives is similar to those of the Proposed Project. Therefore, construction emissions associated with all Alternatives? would be significant and unavoidable even with the implementation of mitigation measure MM-AQ-1.

With respect to operational emissions, future development under all alternatives would be required to comply with AQMP, SIP, CARB, SCAQMD regulations, Title 24 energy efficiency standards. Alternatives 1 and 2 would also be subject to proposed General Plan policies related to circulation, air pollution, and sustainability and propose land use frameworks that emphasize infill and reduced VMT. However, as there is no way to determine the extent to which these regulations will be, or need to be, implemented, nor the effectiveness of the mitigation for individual projects it is impossible to determine if potential impacts would be reduced to below regulatory thresholds. Additionally, there are no mitigation measures beyond strategies in these plans that would reduce impacts. Therefore, long-term regional and local operational emissions would be significant and unavoidable.

With respect to sensitive receptors, construction and operational toxic air contaminant emissions and health impacts of the No Project Alternative and Alternative 1 would be similar but reduced from the Proposed Project. Given increased non-residential development, construction and operational toxic air contaminant emissions and health impacts under Alternative 2 could be higher than the Proposed Project. As future development under the Alternatives would be required to comply with AQMP, SIP, CARB, SCAQMD regulations, Title 24 energy efficiency standards, and the Proposed General Plan policies and actions. Implementation of mitigation measure MM-AQ-1 would also reduce criteria pollutant emissions, but would not be included under the No Project Alternative. However, as there is no way to determine the extent to which these regulations will be, or need to be, implemented, nor the effectiveness of the mitigation for individual projects, it is impossible to determine if potential impacts would be reduced to below regulatory thresholds. Additionally, there are no mitigation measures beyond strategies in these plans that would further reduce impacts. Therefore, localized operational impacts, construction and operational health and toxic air impacts would remain significant and unavoidable under all Alternatives.

The three Alternatives would result in similar odor emissions under construction and operational activities as the Proposed Project, given that none of the Alternatives include land uses associated with odor complaints and all would be subject to SCAQMD rules related to construction-related odorous compounds. Therefore, the potential for odor to impact sensitive receptors would be the same. Given that the Alternatives would result in less general development, although of a similar nature, the Alternatives would result in a less than significant odor impact similar to the Proposed Project.

Under the Proposed Project, operational emissions of CO significantly exceed SCAQMD thresholds. While the No Project Alternative and Alternative 1 would result in less development than the Proposed Project, and therefore less operational emissions, this reduction would not be sufficient to reduce this impact to a level that is less than significant. Additionally, the No Project Alternative would not include proposed General Plan policies aimed at reducing vehicle trips and encouraging multi-modal transportation. Therefore, all Alternatives and the Proposed Project would result in a significant and unavoidable impact on regional operational emissions.

## BIOLOGICAL RESOURCES

Alternatives 1 and 2 would include the proposed General Plan goals for resource conservation, including the maintenance and protection of biologically significant areas, protection of rare and special-status plant and animal communities, and use of native and drought-tolerant vegetation in landscaping where practical, and would therefore result in similar impacts to biological resources as the Proposed Project. Although the No Project Alternative would not include proposed General Plan goals and policies, the 1995 General Plan includes objectives in line with those of the Proposed Project, such as the conservation of sensitive biological resources with an emphasis on the Significant Ecological Area in its SOI.

However, a noteworthy deviation from the Proposed Project is the manner in which Planning Area 2 is designated. Planning Area 2 consists of 424 acres of steeply-sloped, vacant natural areas in two non-contiguous areas. The larger area lies north and east of the intersection of Grand Avenue and Diamond Bar Boulevard, while the other area lies between Pantera Park to the west and Tres Hermanos Ranch to the east. No development has yet occurred in this area. In the existing General Plan, this area is designated as a Planning Area, which would not prohibit future development in this area. Under the Proposed Project, Alternative 1, and Alternative 2, this area is designated as Open Space allowing population exchange between the Puente-Chino Hills movement corridor and Planning Area 2 to occur.

The No Project Alternative would not include proposed General Plan policies or specific mitigation measures designed to compensate for the loss of sensitive habitats and special status species, including endangered and threatened species (MM-BIO-1A through MM-BIO-1K). Since the 1995 General Plan was formulated there have been significant changes to the status and occurrences of these species in the study area. Based on the findings of the Hamilton Biological Report, the occurrences of this species in the City has increased in area of occupation.[2] Therefore, implementation of the No Project Alternative may have a significant and unavoidable impact on special-status species, riparian habitat, federally protected wetlands, and wildlife corridors in the Planning Area. Additionally, given that the No Project Alternative could have adverse effects on the Puente-Chino Hills movement corridor, the No Project Alternative may have significant and unavoidable conflicts with the Puente-Chino Wildlife Corridor conservation being led by the Wildlife Corridor Conservation Authority (WCCA) and the Puente Hills Habitat Preservation Authority. The No Project Alternative would have a more severe impact on these resources than the Proposed Project.

Implementation of Alternatives 1 or 2 would have similar impacts to biological resources as the Proposed Project, and would require implementation of the same mitigation measures to reduce potential impacts on special-status species, riparian habitat, and federally protected wetlands to a level that is less than significant. The only difference is where the new Town Center is sited. The Town Center would be sited in the southern portion of the Golf Course under Alternative 2, resulting in a loss of mature trees that may be used by migratory and residential birds and nesting. Under the Proposed Project and Alternative 1, siting the new Town Center at the Diamond Bar

[2] A study funded by Diamond Bar residents, Diamond Bar Responsible Land Use, Diamond Bar Preservation Alliance, and the Sierra Club (known as the Hamilton Biological Report) analyzed biological resources within the City of Diamond Bar as of February 2019. The findings of the Hamilton Biological Report are addressed in Chapter 3.3: Biological Resources.

Boulevard and Golden Springs Avenue location would not result in removal of mature trees from the Golf Course and therefore would have no immediate effect on bird roosting and potential nesting. Compliance with proposed General Plan policies and mitigation measure MM-BIO-6 would reduce potential indirect and direct impacts of the Proposed Project, Alternative 1, and Alternative 2 on wildlife movement corridors to a level that is less than significant. As with the Proposed Project, Alternatives 1 and 2 would have a less than significant impact on the implementation of applicable conservation plans and policies given compliance with proposed General Plan policies.

The No Project, Alternative 1, Alternative 2, and the Proposed Project would have no impact on the City's tree preservation ordinance or Los Angeles County's Oak Tree Protection Ordinance as long as both ordinances are being enforced.

## CULTURAL, HISTORIC, AND TRIBAL CULTURAL RESOURCES

The No Project Alternative and Alternative 1 would result in less development than the Proposed Project, and therefore, would result in less construction and demolition activities that may have an adverse effect on historic resources. Alternative 2 would result in less residential development but increased non-residential development than the Proposed Project, and could increase potential impacts.

Only one known historical resource has been identified in the Planning Area, and all Alternatives focus development in a few change areas. The Proposed Project, Alternatives 1 and 2 include proposed General Plan policies requiring that new development be compatible with existing development and mitigation measure MM-CULT-1, which requires preparation of a historical resource assessment and implementation of appropriate mitigation prior to development of any project on a parcel containing at least one structure more than 45 years old (with the exception of minor project that would otherwise qualify for an exemption under CEQA). However, without information on specific future projects, it is impossible to know if future development under Alternatives 1 and 2 will avoid substantial adverse impacts on historical resources. Like the Proposed Project, impacts on historical resources would therefore be significant and unavoidable under Alternatives 1 and 2. The No Project Alternative would result in new development compared to existing conditions (but reduced compared to the Proposed Project) and would not include the aforementioned Proposed Project policies and mitigation measures. Therefore, impacts under the No Project Alternative would also have the potential to be significant and unavoidable if additional historical resources are identified in the future.

Future development proposals initiated under Alternative 1, Alternative 2, and the No Project Alternative that include construction-related ground disturbance into native soil have the potential to impact archaeological resources. Anticipated development in the Planning Area would occur through infill development on vacant property and through redevelopment of underutilized properties. A total of 11 archaeological resources have been recorded within the Planning Area and it appears to have been a highly suitable area for the inhabitance of prehistoric people. Therefore, the potential for archaeological resources in the Planning Area is high.

Alternative 1 includes all Proposed Project land use designations (with the exception of the Community Core Overlay), policies aimed at the preservation and management of discovered archaeological materials, and mitigation measure MM-CULT-2, which requires preparation of an archaeological resources assessment and implementation of appropriate mitigation prior to

development of a project that involves ground disturbance (with the exception of minor project that would otherwise qualify for an exemption under CEQA). Therefore, impacts to archeological resources under Alternative 1 would be less than significant, as with the Proposed Project. Alternative 2 would result in increased ground disturbance given the conversion of the Golf Course to the new Town Center and parkland, and could result in more significant impacts than the Proposed Project. With implementation of relevant proposed General Plan policies and MM-CULT-2, this impact would be reduced to a level that is less than significant. The No Project Alternative would result in less development than the Proposed Project, but development associated with this alternative could include construction-related ground disturbance. As discussed in the Biological Resources section above, the No Project Alternative would retain the existing General Plan land use designation of Planning Area 2. Under Alternatives 1 and 2 and the Proposed Project, this area would be designated as Open Space and would be protected from future development. Additionally, the No Project Alternative would not include proposed General Plan policies and mitigation aimed at preserving archaeological resources. Therefore, the No Project Alternative could have a significant and unavoidable impact on archaeological resources.

Given that there are no known cemeteries or human remains locations within the Planning Area, and all Alternatives would be subject to California Health and Safety Code and Public Resources regulations for the treatment of human remains, all Alternatives would be expected to have a less than significant impact on the disturbance of human remains. The proposed General Plan does not include any policies related to the treatment of human remains; therefore, impacts would be the same under each Alternative, including the No Project Alternative.

Impacts on tribal cultural resources could occur as a result of future development proposals initiated under any of the Alternatives that include ground disturbance into native soil. There are no identified Native American resources within the Planning Area, but it is possible that future development within the Planning Area may result in the identification of unrecorded tribal cultural resources.

Alternatives 1 and 2 would include proposed General Plan policies requiring the City of Diamond Bar to establish development processes to avoid the disturbance of tribal cultural resources and to create project-specific Native American consultation early in the development review process. Impacts under Alternative 2 may be slightly higher given that development of the Golf Course would have the potential to unearth unrecorded tribal cultural resources, but development would be subject to the described policies. Therefore, Alternatives 1 and 2 would have a less than significant impact on tribal cultural resources. As discussed, the No Project Alternative would not designate Planning Area 2 as Open Space. Potential development in this area could include ground disturbance into native soil, and the No Project Alternative would not include the same protective policies as the Proposed Project. Therefore, impacts of the No Project Alternative on tribal cultural resources could be significant and unavoidable.

## ENERGY, CLIMATE CHANGE, AND GREENHOUSE GASES

The No Project Alternative and Alternative 1 would result in less development than the Proposed Project, and therefore, would result in less construction and operational GHG emissions at buildout. Alternative 2 would also result in less population, housing, and jobs growth than the Proposed Project but would increase non-residential development. Compliance with the CALGreen Building Code, Title 24 standards for energy efficiency in commercial buildings, and

proposed General Plan policies aimed at reducing impacts from new development would ensure that the increase in non-residential development under Alternative 2 would not substantially increase construction and operational GHG emissions beyond the Proposed Project. As the Proposed Project would be less than significant with respect to GHG emissions and energy consumption based on compliance with the proposed General Plan policies (included in Alternatives 1 and 2) and State and local measures, Alternatives 1 and 2 would also be less than significant. While the No Project Alternative would not include proposed General Plan policies that reduce transportation-related GHG emissions, the No Project Alternative would result in less development and lower VMT than the Proposed Project. Therefore, the GHG emissions and energy consumption from the No Project Alternative would be less than the Proposed Project, and the No Project Alternative would also be less than significant.

The No Project Alternative, Alternative 1, and Alternative 2 would be required to comply with the same GHG and Energy policies, plans and regulations as identified for the Proposed Project. Under the No Project Alternative, proposed General Plan policies and the Climate Action Plan would not be adopted. Additionally, the No Project Alternative would not contain policies or land uses that support applicable plans adopted for the purpose of reducing GHG emissions over time. Under the No Project Alternative, the City of Diamond Bar would likely be capable of meeting the CARB 2017 Scoping Plan and SB 32 targets for GHG emissions in 2030 given that the Business as Usual scenario for the Proposed Project would easily achieve these targets and the No Project Alternative would result in reduced development and VMT compared to the Proposed Project. The No Project Alternative would not conflict with the CALGreen Building Code or Title 24. However, the No Project Alternative would not be consistent with the goals of the 2016-2040 RTP/SCS to support development of compact communities in existing areas and reuse developed land served by high-quality transit. Without further quantitative analysis, it cannot be guaranteed that the No Project Alternative would be capable of achieving the EO S-3-05 goal of reducing GHG emissions to 80 percent below the 1990 level by the year 2050 given that it would not include proposed General Plan policies or land uses designed to reduce VMT and overall emissions. Finally, the No Project Alternative would not directly support the zero-emission vehicle mandate established by EO B-16-1 and the Advanced Clean Cars Initiative as it does not include proposed General Plan policies aimed at increasing available parking and charging stations for electric vehicles. Therefore, the No Project Alternative would have a significant and unavoidable impact with regard to plans adopted for the purpose of reducing GHG emissions over time. This impact would be less than significant under the Proposed Project, Alternative 1, and Alternative 2 given similar levels of GHG emissions and inclusion of proposed General Plan policies aimed at improving air quality, encouraging multi-modal transportation and reducing VMT, and promoting infill development. Like the Proposed Project, Alternatives 1 and 2 would comply with CALGreen Code and Title 24 requirements to reduce energy consumption and would include the Climate Action Plan, as well as proposed General Plan policies aimed at reducing GHG emissions, energy consumption, and VMT. As discussed below, Alternatives 1 and 2 would result in reduced VMT compared to the Proposed Project and would prioritize infill development. Therefore, like the Proposed Project, Alternatives 1 and 2 would have a less than significant impact on plans for renewable energy and energy efficiency. While the No Project Alternative would comply with the CALGreen Code and Title 24 requirements and would result in reduced VMT compared to the Proposed Project, the No Project Alternative would not be consistent with the goals of the 2016-2040 RTP/SCS and may therefore have a significant and unavoidable impact on plans for renewable energy and energy efficiency.

## GEOLOGY, SOILS, AND SEISMICITY

The Proposed Project, Alternative 1, and Alternative 2 would have similar impacts regarding fault rupture, groundshaking, and liquefaction given that the Proposed Project and Alternatives share similar land use designations and policies protecting against potential adverse effects from geologic hazards. Due to the absence of active faults in the Planning Area, the risk of surface rupture is very low and impacts related to fault rupture would be less than significant for all Alternatives, including the No Project Alternative.

Earthquakes in and near the Planning Area have the potential to cause groundshaking of significant magnitude. All Alternatives would allow for additional development within the Planning Area, which could expose people and property to strong seismic groundshaking. New buildings under each Alternative would be constructed in compliance with the California Building Code. While the No Project Alternative would not include additional General Plan policies aimed at reducing impacts of seismic hazards, the No Project Alternative would result in less new development than the Proposed Project and would be subject to the provisions of the California Building Code and 1995 General Plan. Therefore, impacts associated with strong seismic groundshaking would be less than significant for all Alternatives.

Alternatives 1 and 2 include the same land use designations in areas located within liquefaction zones as the Proposed Project but would result in slightly more Transit Oriented Mixed Use development in the land directly south of the Metrolink Station. Given implementation of the proposed General Plan policies, these Alternatives would have a less than significant impact related to liquefaction. The No Project Alternative does not propose new development in areas within liquefaction zones, and would be subject to existing 1995 General Plan policies. Therefore, impacts under the No Project Alternative would also be less than significant.

Alternatives 1 and 2 would include similar land use designations and General Plan policies as the Proposed Project, and do not propose development on any hills of 30 percent slope or greater. Given compliance with CBC requirements and standard industry practices, Alternatives 1 and 2 would result less than significant impacts from landslides. The No Project Alternative would not include Proposed Project policies related to hillside development and seismic hazards and would retain the existing land use designation of Planning Area 2, which includes multiple steep slopes. Risks associated with landslides would be much higher under the No Project Alternative should this area be developed. However, the potential impacts from landslides on development in this area would be addressed through site-specific geotechnical studies prepared in accordance with CBC requirements and standard industry practices, as needed, which would specifically address landslide hazards. Therefore, impacts under the No Project Alternative would be less than significant but could be more severe than under the Proposed Project should this area be developed.

Development associated with Alternative 1 would have similar less-than-significant impacts on soil erosion and topsoil as the Proposed Project given compliance with proposed General Plan policies and a NPDES permit, which includes the implementation of best management practices (BMPs) and a storm water pollution prevention plan (SWPPP). Alternative 2 would have more severe impacts on soil erosion and topsoil than the Proposed Project given development of the Golf Course, which would include earthwork activities that could expose soils to the effects of erosion or loss of topsoil. Once construction is complete and exposed areas are revegetated (development of new parkland in the northern portion of the Golf Course) or covered by buildings, asphalt, or

concrete (development of the new Town Center), the erosion hazard is substantially eliminated or reduced. Therefore, Alternative 2 would have a less than significant impact on soil erosion once construction of the new Town Center and parkland is complete. The No Project Alternative would result in less development than the Proposed Project but would not designate Planning Area 2 as Open Space or include proposed General Plan policies that could reduce impacts to soil erosion. However, compliance with 1995 General Plan policies and a NPDES permit would be effective in limiting soil erosion and the loss of topsoil. Therefore, impacts under the No Project Alternative would be less than significant.

Diamond Bar Municipal Code Section 1809.4 addresses construction on expansive soils, stating that, unless otherwise specified by a registered geotechnical engineer, foundation systems within the City of Diamond Bar are considered to be on expansive soil. Implementation of any Alternative would therefore likely include development occurring on soils considered to be expansive. This is especially true regarding development of the Golf Course under Alternative 2, which overlies a significant region of Altamont Clay Loam. The potential hazards of expansive soils would be addressed through compliance with CBC requirements that regulate the analysis of expansive soils and the Diamond Bar Code of Ordinances. Implementation of proposed General Plan policies would further reduce risk of exposure to geological hazards by mandating site-specific geotechnical and mitigation prior to development. Therefore, impacts related to development on expansive soil under Alternative 1 and 2 would be less than significant, as with the Proposed Project. While the No Project Alternative would not include additional General Plan policies, compliance with the CBC and Ordinance Section 1809.4 would ensure that impacts would also be less than significant.

Like the Proposed Project, development under Alternative 1 would locate structures in areas with connections to Diamond Bar's existing sanitary sewer system. Alternative 2 would result in the development of a new Town Center in the southern portion of the Golf Course. A sanitary sewer main line is located along the southern border of the Golf Course at Golden Springs Drive and connects to a Los Angeles County Sanitation District Trunk line at the southwestern edge of the Golf Course at the intersection of I-57 and I-60. Proposed General Plan policies require the construction of sewer and other necessary public facilities and coordination with LACPWD and LACSD to ensure that wastewater treatment conveyance systems are available to serve planned development. Additionally, future development is subject to City and County subdivision ordinances regulating the use of septic systems and connections to public sewer lines. While redevelopment of the Golf Course under Alternative 2 may require the construction of connections to public sewer lines, this area is currently served by a main line and environmental impacts associated with construction of new connections would be reduced to a level that is less than significant given compliance with existing ordinances. Given that the majority of existing development within Diamond Bar is connected to the sanitary system and the majority of new development under the No Project Alternative would be in central areas served by the current sewer system, the No Project Alternative would also have a less than significant impact. None of the Alternatives would result in development in areas having soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems.

Alternatives 1 and 2 would locate development in similar areas as the Proposed Project and would have the potential to result in damage to paleontological resources located at or near previously undisturbed ground surfaces as result of construction-related ground disturbance. The Planning Area is underlain by Quaternary Alluvium and the Puente/Monterey Formation, which have yielded significant vertebrate fossils and are assigned a high paleontological potential. Construction

of the new Town Center on the Golf Course under Alternative 2 would have the potential to result in further impacts given that this area is not intensely developed under existing conditions. As with the Proposed Project, compliance with proposed General Plan policy RC-P-51 and mitigation measures MM-GEO-1 and MM-GEO-2 would reduce impacts on unique paleontological resources to a level that is less than significant. While the No Project Alternative would result in less development than the Proposed Project, future development projects initiated under the No Project Alternative would still have the potential to include construction-related ground disturbance. Given that the No Project Alternative would not include proposed General Plan policies and mitigation measures that could reduce impacts on paleontological resources, this impact would be significant and unavoidable.

## HAZARDS, HAZARDOUS MATERIALS, AND WILDFIRE

Implementation of the Proposed Project and any Alternative would allow for the development of land uses that may require the routine use, transport, and disposal of hazardous materials and waste within the Planning Area. Future construction activities associated with buildout of the Proposed Project and each Alternative may generate hazardous materials and waste. Hazardous materials would be subject to existing federal, state, and local regulations regarding the use, transport, disposal, and accidental release of hazardous materials.

Like the Proposed Project, Alternative 1 and Alternative 2 would allow the siting of new housing units, which are sensitive receptors, within the vicinity of highways that routinely transport fuels and other hazardous materials. Development of the mixed-use Town Center in the southern portion of the Golf Course (at the intersection of I-57 and I-60) under Alternative 2 and additional Transit-Oriented Mixed Use parcels between the Metrolink and I-60 would increase the number of housing units within the vicinity of highways compared to the Proposed Project. However, the number of new sensitive receptors would be relatively limited and USDOT, Caltrans, and the California Highway Patrol regulate and manage routine transport of hazardous materials on SR-57 and SR-60. Therefore, like the Proposed Project, impacts to sensitive receptors from the routine transport of fuels and other hazardous materials would be less than significant under Alternatives 1 and 2.

In compliance with existing regulations, businesses handling or storing certain amounts of hazardous materials would be required to prepare a hazardous materials business plan to inventory hazardous materials on-site and provide information on safe use and emergency response regarding such materials. There are no permitted hazardous waste facilities in the Planning Area, and any future disposal of hazardous waste would require compliance with relevant federal and State law. Therefore, like the Proposed Project, impacts under Alternative 1 and 2 would be less than significant. While the No Project Alternative would not include proposed General Plan policies that ensure safe practices regarding hazardous materials, development under this Alternative would be subject to existing regulations and would not result in residential land use changes. Therefore, impacts under the No Project Alternative would similarly be less than significant.

As with the Proposed Project, major land use changes are expected in a few focus areas under Alternatives 1 and 2, which are intended to provide opportunities for infill development incorporating housing, employment, and recreation. Within this low-risk variety of uses, new developments that utilize hazardous chemicals, such as dry cleaners or gas stations, could result in

some potential for upset and accident conditions involving the release of hazardous materials into the environment. While Alternative 2 would site the new Town Center in a different location than the Proposed Project and Alternative 1, impacts associated with this development would be similar. Given existing regulations and programs and proposed General Plan policies that reduce the potential for hazardous materials upsets and promote the ability of emergency services to respond to incidents, impacts associated with the release of hazardous materials into the environment under Alternatives 1 and 2 would be less than significant, as is the case under the Proposed Project. The No Project Alternative does not propose any land use changes and any development would be subject to existing regulations at the federal, State, and local levels that serve to minimize the potential for upset during routine transportation, use, and disposal and minimize the risk of upset or accident involving sites that have previously been contaminated by hazardous substances. Therefore, impacts under the No Project Alternative would be less than significant.

Under the land use designations of Alternatives 1 and 2, there would be a range of land uses potentially allowed within a quarter-mile of existing schools. None of the Alternatives propose construction of new schools in the Planning Area. Alternatives 1 and 2 would redesignate Light Industrial land adjacent to the Metrolink station and Walnut Elementary School as Transit-Oriented Mixed Use, which could reduce school exposure impact to hazardous materials compared to the Proposed Project (which retains the Light Industrial designation). Alternatives 1 and 2 would include proposed General Plan policies which prohibit the development of projects that would reasonably be anticipated to emit hazardous air pollutants or handle extremely hazardous substances within a quarter-mile of a school and provide for emergency planning to address potential upsets. Therefore, like the Proposed Project, impacts from Alternatives 1 and 2 would be less than significant. The No Project Alternative does not propose any land use changes and therefore would not increase school exposure to hazardous materials. Given that individual users of hazardous materials would continue to be regulated by the Disclosure of Hazardous Materials Program and public schools are required to evaluate and amend their school safety plan on an annual basis, the No Project Alternative would have a less than significant impact.

There are numerous sites in the Planning Area that are included on a list of hazardous materials sites or that need further investigation; however, the majority of these sites are closed as of 2019. Three open sites remain on Golden Springs Drive and South Diamond Bar Boulevard, and nine sites are subject to the regulations of the California Waste Discharge Requirements Program. Sites with existing soil or groundwater contamination are regulated by existing federal and State policies and have been or are being investigated and remediated. Alternative 1 would result in similar land use changes as the Proposed Project and would not include minor land use changes at Diamond Bar Boulevard and Grand Avenue, where one SWRCB Cleanup Program Site/DTSC Evaluation site is located. Alternative 2 similarly does not propose land use changes at this intersection and would locate the new Town Center at the southern portion of the Golf Course, away from the SWRCB LUST Cleanup Site/DTSC Voluntary Cleanup site. The No Project Alternative does not propose any land use changes located near hazardous materials sites and would be subject to existing federal and State regulations. Therefore, impacts under all Alternatives would be less than significant.

Given that there are no airports within two miles of the Planning Area, each of the Alternatives would have no impacts related to an airport-related safety hazard for people residing or working in the Planning Area. Similar to the Proposed Project, development under Alternatives 1 and 2 would neither impair implementation nor interfere with the County of Los Angeles Emergency Response Plan or City of Diamond Bar Emergency Operations Center, which are the two emergency plans

that apply to the Planning Area. Alternatives 1 and 2 would include proposed General Plan policies regarding emergency access and provision of successful emergency response and would support the efforts of local disaster volunteer programs. While the No Project Alternative would not include proposed General Plan policies, implementation of this Alternative would not result in new land uses or significantly increase densities and this Alternative would support existing emergency plans and programs. Therefore, impacts under all Alternatives would be less than significant.

Alternatives 1 and 2 would have the same impacts as the Proposed Project with respect to wildfire. Areas of high to extreme fire threat occur throughout the Planning Area, predominately in the southwest and northwest corners of the Planning Area, and in that area contained within the City's SOI. Land use changes under Alternatives 1 and 2 that differ from the Proposed Project are located in areas of moderate fire threat. Like the Proposed Project, Alternatives 1 and 2 do not propose any land use changes within Very High or High Fire Hazard Severity Zones. Alternatives 1 and 2 would include proposed General Plan policies that would reduce the risk of exposure and loss due to wildfire by mandating continued adhere to local fire codes and participation in the Los Angeles County Fire Department's fire management and response programs. Therefore, Alternatives 1 and 2 would have less than significant impacts on wildland fire risk, emergency evacuation or response plans, pollutant exposure from wildfire, infrastructure expansion, and soil and water movement.

The No Project Alternative would retain existing General Plan land use designations and does not propose any land use changes in areas of high to extreme fire threat or Very High or High FHSZs. However, the No Project Alternative does not include proposed General Plan policies that would reduce the risk of exposure and loss due to wildfire and would retain the existing land use designation of Planning Area 2, which leaves this area open for future development. The majority of land within Planning Area 2 is identified as a Very High FHSZ and is steeply sloped. Should development occur in this area under the No Project Alternative, it may expose people and structures to a significant risk of loss, injury, or death; exacerbate fire risks due to slope and expose project occupants to pollutant concentrations from wildfire; require the construction of infrastructure specifically to combat risk for fire exposure; and expose people and structures to downslope flooding or landslides as a result of post-fire slope instability. However, all development in this area would be subject to the Diamond Bar and Los Angeles County Hillside Management Ordinances, which regulate development in hillsides that have natural slope gradients of 25 percent or steeper and require potential hazards to be analyzed as part of the permitting process. Additionally, CAL FIRE oversees the design and construction of fuel breaks within its jurisdiction and maintains standards with regard to fuel breaks and environmental protection. Compliance with existing state and local regulations would reduce wildfire-related impacts under the No Project Alternative to a level that is less than significant; however, impacts could be more severe than the Proposed Project if Planning Area 2 is developed.

## HYDROLOGY AND WATER QUALITY

Urban development can bring about an increase in impervious surfaces that could lead to increased run-off rates and flooding in downstream areas, as well as a deterioration in water quality. The Proposed Project and all Alternatives would be required to comply with local plans, existing State and federal regulations, and the applicable NPDES permit requirements; and thus, would have a less than significant impact in terms of potentially violating any federal, State, or local water quality standards or waste discharge requirements.

The mitigation of stormwater impacts is the responsibility of developers and property owners. Under Alternative 2, the development of the golf course (i.e. grass, landscapes areas, open space, etc.) into a town center (i.e. roadways, parking lots, buildings, landscaped medians and parkways, etc.) will substantially increase impervious area compared to the Proposed Project and existing conditions, and thus, increase stormwater runoff generated on-site. The project applicant/property owner would be required to provide on-site storm water quality and runoff mitigation, such as detention basins, underground storage, or harvest and use depending on the condition of underlying soils. Given implementation of this measure, impacts under Alternative 2 would be reduced to a level that is less than significant, similar to the Proposed Project.

Under Alternative 1, as with the Proposed Project, the potential stormwater impacts would be smaller due to the fact that the proposed Town Center area is already developed and redevelopment into a town center would likely not increase the impervious area. Redevelopment of an existing developed area will likely result in a positive change with respect to stormwater runoff and stormwater quality due to adherence to existing regulations and proposed General Plan policies that would reduce the impact to less than significant. Overall, given potential impacts related to runoff and water quality, Alternative 2 would have a greater impact than either the Proposed Project or Alternative 1. However, adherence to existing regulations and proposed policies would reduce the impact to less than significant.

The No Project Alternative would likely generate less impervious surface resulting in runoff that affects drainage, water quality, and flooding locally and in other parts of the Planning Area than Alternative 2, as it would retain the golf course. The No Project Alternative would likely generate somewhat similar impervious area as the Proposed Project and Alternative 1, since the Proposed Project and Alternative 1 focus in redevelopment of existing developed areas. The No Project Alternative also would not include the same breadth of policies addressing hydrological issues and protecting water quality as the Proposed Project, Alternative 1, and Alternative 2. Given compliance with existing policies and regulations found in the City of Diamond Bar 1995 General Plan, Floodplain Management Ordinance, and Stormwater and Urban Runoff Control Ordinance, this impact would be less than significant.

## LAND USE AND HOUSING

Alternative 1 would include the same land use designations as the Proposed Project, with the exception of the Community Core Overlay, and both would locate the new Town Center along Diamond Bar Boulevard between SR-60 and Golden Springs Drive. Alternative 2 would include similar land use designations as the Proposed Project but would locate the new Town Center Mixed Use area in the southern portion of the Golf Course and designate the upper 105 acres of the Golf Course as new parkland. Under Alternative 2, the Diamond Bar Boulevard and Golden Springs Drive area would retain a General Commercial designation.

As with the Proposed Project, implementation of Alternatives 1 and 2 would have a less than significant impact regarding the physical division of an established community. Alternatives 1 and 2 and the Proposed Project would provide more linkages within the city and region, particularly given the designation of the Transit-Oriented Mixed Use focus area adjacent to the Metrolink station. Division of the Golf Course under Alternative 2 would not constitute division of an established community. As the No Project Alternative would retain existing General Plan land use

designations, the No Project Alternative would have no impact on the physical division of an established community.

Given that Alternatives 1 and 2 would include the same proposed policies and similar land use designations as the Proposed Project, impacts related to conflict with any land use plans or regulations would be similar. As with the Proposed Project, existing planning regulations and the City's Zoning Ordinance would be updated to be consistent with and effectively implement Alternatives 1 or 2, if adopted. Alternatives 1 and 2 contain proposed General Plan policies aimed at maintaining consistency with regional and local plans, including Diamond Bar specific plans, the Los Angeles County General Plan, and the Los Angeles County Code of Ordinance. Therefore, like the Proposed Project, Alternatives 1 and 2 would have a less than significant impact on this issue. Given that the 1995 General Plan would not be replaced under the No Project Alternative and this alternative would not introduce any conflicts with existing regional and local plans, the No Project Alternative would have no impact on this issue.

The No Project Alternative, Alternative 1, and Alternative 2 would result in less population, housing, and jobs growth than the Proposed Project. The jobs to housing ratio under each Alternative would be similar to that under full buildout of the Proposed Project, though slightly lower under Alternative 1 (0.96 for the Proposed Project compared to 0.96 under the No Project Alternative, 0.91 under Alternative 1, and 0.98 under Alternative 2).

While Alternatives 1 and 2 would result in less residential growth than the Proposed Project, both alternatives would focus infill development opportunities in vacant and underutilized areas to increase the overall number of dwelling units and serve the diverse needs of the community at various socioeconomic levels. Alternatives 1 and 2 would include proposed General Plan policies aimed at preserving existing residential neighborhoods, which make up the majority of developed land in the Planning Area and are not anticipated to undergo significant land use changes under any of the Alternatives. The No Project Alternative would result in the least amount of residential growth but would include the 2013-2021 Housing Element, which aims to meet Regional Housing Needs Assessment housing needs. The No Project Alternative would also result in reduced population growth and would not result in any land use changes that could displace substantial numbers of existing people or housing. Therefore, all Alternatives including the Proposed Project would have a similar less than significant impact on this issue.

## NOISE

The No Project Alternative and Alternatives 1 and 2 would result in similar construction noise and vibration impacts as the Proposed Project, because the type of noise-and vibration-generating activities that would occur would be similar to those under the Proposed Project on maximum activity days. The same general levels of noise shown in Table 3.10-12, in Chapter 3.10: Noise, would be expected to occur for both Alternatives because the type of development (i.e. excavation, building construction, etc.) would be similar to the Proposed Project. All of the Alternatives would result in less than significant construction noise and vibration impacts similar to the Proposed Project given that all development would be required to comply with the restrictions of the City Municipal Code; if a project requests to deviate, the project proponent would need to obtain permission from the City and/or the County, including conditions and standards to minimize noise impacts. The No Project Alternative, Alternative 1, and Alternative 2 would result in slightly lower

VMT than the Proposed Project and therefore would generate similar or reduced traffic noise levels than the Proposed Project. Therefore, impacts under all Alternatives would be less than significant.

Alternatives 1 and 2 would be subject to the same noise and vibration standards as the Proposed Project found in Table 7-1 of the proposed General Plan, and all alternatives would be subject to maximum noise level limits for mobile and stationary construction equipment at single-family, multi-family, and semi-residential/commercial listed for the City and the County in Chapter 3.10: Noise. The No Project Alternative would be subject to noise standards established in the 1995 General Plan. Given reduced development under Alternative 1, Alternative 2, and the No Project Alternative and compliance with existing local standards and regulations, noise impacts associated with construction, rail, stationary sources, and traffic under each Alternative would be similar or slightly reduced compared to those expected under the Proposed Project, which was found to have a less than significant impact on applicable noise standards. Therefore, impacts associated with the generation of ambient noise levels in compliance with applicable noise standards would be less than significant under all Alternatives.

Noise impacts from public airports and private airstrips for the Alternatives would be identical to the impacts discussed for the Proposed Project, and all would result in no impact.

## PUBLIC FACILITIES AND RECREATION

The No Project Alternative, Alternative 1, and Alternative 2 would result in less population and residential growth than the Proposed Project. Alternatives 1 and 2 would include proposed General Plan policies regarding fire safety education, public safety programs, coordination with the Los Angeles County Fire Department and Los Angeles County Sheriff's Department, compact development, and emergency access. While the No Project Alternative would not include proposed General Plan policies, development associated with implementation of this Alternative would be subject to existing City of Diamond Bar and County of Los Angeles policies that would minimize calls for fire protection services. As discussed in Chapter 3.11: Public Schools and Facilities, implementation of each of the Alternatives would coincide with a decline in Diamond Bar public school enrollment rates and capacity at existing and planned facilities are estimated to be sufficient to accommodate any increase in students associated with implementation of the Alternatives.

Given that all Alternatives would result in less population than the Proposed Project, each of the Alternatives would reduce potential impacts of the Proposed Project on other public facilities such as the library. None of the Alternatives, including the Proposed Project, anticipate or propose development of new public facilities. However, should new facilities need to be constructed in the future, new projects would be subject to CEQA requirements for environmental assessment. While the No Project Alternative would not include proposed General Plan policies requiring construction best management practices to reduce environmental impacts of new development, existing State and local regulations and project-level review would ensure that impacts would be less than significant for all Alternatives, including the Proposed Project.

The Proposed Project would have a significant and unavoidable impact on park access and condition given that the City of Diamond Bar would fall severely short of its parkland standard of 5.0 acres per 1,000 residents (2.77 acres per 1,000 residents at buildout of the Proposed Project). No mitigation is available as it cannot be guaranteed that Los Angeles County would choose to cease operation of the Golf Course, allowing 100 contiguous acres of the Golf Course to be redeveloped as public parkland under the Community Core Overlay, and this EIR does not consider additional

parkland acreage from the private Country Park. While Alternative 1 would not provide the option for redevelopment of the Golf Course as public parkland as it does not include the Community Core Overlay found in the proposed General Plan, Alternative 1 would otherwise result in the same amount of parkland as the Proposed Project. Alternative 1 would result in reduced population compared to the Proposed Project; however, this would not be sufficient to achieve the parkland ratio goal (2.4 acres per 1,000 residents). Therefore, Alternative 1 and the Proposed Project would result in similar impacts to park access and condition. Alternative 2 would automatically designate 118 acres of the northern portion of the Golf Course as public parkland, increasing the parkland ratio to 4.27 acres per 1,000 residents. While this would be an improvement over the Proposed Project, there is no mitigation available to achieve the standard of 5.0 acres per 1,000 residents and the impact would remain significant and unavoidable. Given that the No Project Alternative would not increase available parkland, it would result in a parkland ratio of 2.58 acres per 1,000 residents, again failing to achieve the parkland ratio and creating a significant and unavoidable impact related to the deterioration of parkland.

## TRANSPORTATION

In order to compare alternatives, the No Project Alternative, Alternative 1, and Alternative 2 were converted into the format necessary for incorporation into the SCAG Regional Travel Demand Model. The transportation model uses socioeconomic data to estimate trip generation and mode choice, and several sub-models to address complex travel behavior and multi-modal transportation issues. The model responds to changes in land use types, household characteristics, transportation infrastructure, and travel costs such as transit fares, parking costs, tolls, and auto operating costs. Additional metrics, estimates developed by Fehr & Peers, and GIS mapping were used to assess transportation performance for the concepts. The purpose of this analysis was to conduct a comparative assessment and describe the overall transportation effects of the concepts.

The Proposed Project was estimated to generate higher VMT and higher VMT per person than the No Project Alternative and resulted in a significant and unavoidable impact. The Proposed Project anticipates increases the population by approximately 15 percent and the employment in the City by approximately 48 percent, while the No Project Alternative anticipates a net zero increase in population and a 28 percent increase in employment. Project Alternatives 1 and 2 anticipate an increase the population in the City by approximately nine (9) percent each and increase the employment in the City by approximately 32 percent and 44 percent, respectively. While Alternatives 1 and 2 do not increase the total service population (the sum of population and employment) as significantly as the Proposed Project (approximately 16 percent), the Alternative 1 service population is approximately eight (8) percent higher than the No Project and the Alternative 2 service population is approximately 11 percent higher than the No Project.

Therefore, it is anticipated that Alternatives 1 and 2 would result in higher VMT than the No Project conditions and lower VMT than the Proposed Project. Alternatives 1 and 2 would not be expected to reduce the identified significant impacts to a less-than-significant level. As such, although Alternatives 1 and 2 are anticipated to be less impactful Alternatives from a VMT perspective, they would likely still result in the same identified impacts as the Proposed Project with regards to consistency with CEQA Guidelines section 15064.3, subdivision (b). While the No Project Alternative would result in lower VMT than the Proposed Project, it could increase the VMT per person above baseline conditions given that it would not substantially increase the service population and would not include proposed General Plan policies aimed at reducing VMT and

increasing connectivity and multi-modal options in the Planning Area. Therefore, all Alternatives would have a significant and unavoidable impact with regards to increased VMT.

As with the Proposed Project, all Alternatives would have a less than significant impact on emergency access and transportation hazards associated with design features. Implementation of the No Project Alternative would not conflict with any plan addressing the circulation system, and implementation of proposed General Plan policies would ensure that Alternatives 1 and 2 would similarly have a less than significant impact.

## UTILITIES AND SERVICE SYSTEMS

Alternatives 1 and 2 would result in lower levels of population and employment growth than the Proposed Project. Assuming that the demand for public utilities scales with population growth, Alternatives 1 and 2 can be expected to increase demand for water, wastewater, stormwater, and solid waste facilities compared to existing conditions. Alternative 2 would have the greatest growth in utility and infrastructure demand due to the change from a golf course to a town center. As a result, Alternative 2 would have a greater potential impact on water or wastewater treatment facilities, usage of water supplies, and landfill usage than the Proposed Project, Alternative 1, and the No Project Alternative. All Alternatives would be required to comply with federal, State, and local regulations pertaining to water, wastewater, stormwater, and solid waste. Development under the Proposed Project, Alternative 1, and Alternative 2 would also be subject to proposed General Plan policies pertaining to water, wastewater, and solid waste, as well as policies regarding the development of utilities and minimization of environmental impacts during construction.

As discussed in Chapter 3.13: Utilities and Service Systems, utility providers have the capacity to accommodate the increased water demand, wastewater flows, storm water runoff, and solid waste generated under the Proposed Project and therefore Alternatives 1 and 2. While Alternative 2 would result in the most substantial change to utility and infrastructure demand, implementation of Alternative 2, as with all other Alternatives, would not require the construction of new facilities or exceed water, wastewater, or solid waste capacity of existing facilities.

The No Project Alternative anticipates the smallest level of population growth; and therefore, would have the smallest increase in demand for utilities and service systems. Thus, the No Project Alternative would have the smallest impact upon usage of water or wastewater treatment facilities, usage of water supplies, and landfill usage. However, because the No Project Alternative would not benefit from policies in the proposed General Plan that would minimize potential harmful environmental impacts associated with the use of and development of facilities related to these utilities, the No Project Alternative may ultimately have a significant and unavoidable impact, and therefore a greater impact than the Proposed Project and Alternatives 1 and 2, if new facilities are required in the future.

## 4.4 Environmentally Superior Alternative

CEQA Guidelines (Section 15126.6) require the identification of an environmentally superior alternative among the alternatives analyzed. Table ES-3: Summary of Impacts for Alternatives summarizes the Alternatives' overall environmental impacts for each topic presented in Section 4.3.Like the Proposed Project, implementation of either Alternative 1 or Alternative 2 would result in six (6) significant and unavoidable impacts, seven (7) less-than-significant impacts with mitigation, 45 less-than-significant impacts, and four (4) impacts of no significance. Implementation of the No Project Alternative would result in 17 significant and unavoidable impacts, 39 less-than-significant impacts, and six (6) impacts of no significance.

While Alternative 1, Alternative 2, and the Proposed Project were found to have the same number of potentially significant and unavoidable impacts, the redevelopment of the Golf Course under Alternative 2 would inherently result in more severe impacts than Alternative 1 or the Proposed Project. Without further project-level study and mitigation, construction of a new Town Center in the southern portion of the Golf Course may result in adverse effects on biological resources, cultural and paleontological resources, soils, and service systems. Alternative 1 and the Proposed Project propose a similar land use pattern and would not automatically result in the redevelopment of the Golf Course, and would therefore be considered environmentally superior.

Reduced development and population growth under Alternative 1 may slightly reduce impacts of the Proposed Project; however, implementation of Alternative 1 would not be sufficient to reduce significant and unavoidable impacts on air quality, historic resources, and VMT to a level that is less than significant. Additionally, differences in population, housing, and jobs growth can be partially attributed to differences in buildout methodology between the Alternatives and the Proposed Project. Most significantly, Alternative 1 would not include the Community Core overlay, which would require a master plan to ensure comprehensive implementation of reuse of the Golf Course should the County of Los Angeles choose to discontinue its operation. Implementation of the Community Core overlay would address the pervasive issue in the City of Diamond Bar, and Los Angeles County as a whole, of equitable access to parkland as it would require that approximately 100 contiguous acres of the Golf Course be developed as public parkland. The southern portion of the Golf Course site would be developed as a mix of uses, including high-density housing, and would be relatively accessible by the Metrolink station. Given that the Proposed Project was originally based on Alternative 1, is generally found to be more compatible with the surrounding environment, and provides additional benefits through the Community Core designation, the Proposed Project is considered environmentally superior.

**Table 4.4-1: Summary of Impacts for Alternatives**

| | *Level of Significance* | | | |
|---|---|---|---|---|
| *Impact* | *Proposed Project* | *No Project Alternative* | *Alternative 1* | *Alternative 2* |
| **Aesthetics** | | | | |
| Scenic Vistas | LTS | LTS | LTS | LTS |
| State Scenic Highway | NI | NI | NI | NI |
| Visual Character | LTS | LTS | LTS | LTS |
| Light and Glare | LTS | LTS | LTS | LTS |
| **Air Quality** | | | | |
| Air Quality Plan | LTS | LTS | LTS | LTS |
| Air Quality Standard | SU | SU | SU | SU |
| Sensitive Receptors | SU | SU | SU | SU |
| Emissions or Odors | SU | SU | SU | SU |
| **Biological Resources** | | | | |
| Special-Status Species | LTSM | SU | LTSM | LTSM |
| Sensitive Habitat | LTSM | SU | LTSM | LTSM |
| Wetlands | LTSM | SU | LTSM | LTSM |
| Wildlife Corridors | LTSM | SU | LTSM | LTSM |
| Policies and Ordinances | NI | NI | NI | NI |
| HCPs | LTSM | SU | LTSM | LTSM |
| **Cultural, Historic, and Tribal Cultural Resources** | | | | |
| Historical Resources | SU | SU | SU | SU |
| Archaeological Resources | LTSM | SU | LTSM | LTSM |
| Human Remains | LTS | LTS | LTS | LTS |
| Tribal Cultural Resources | LTS | SU | LTS | LTS |
| **Energy, Climate Change, and GHG Emissions** | | | | |
| Greenhouse Gas Emissions | LTS | LTS | LTS | LTS |
| Plan, Policy, or Regulation | LTS | SU | LTS | LTS |
| Wasteful Energy Consumption | LTS | LTS | LTS | LTS |
| Renewable Energy Plan | LTS | SU | LTS | LTS |
| **Geology, Soils, Seismicity, and Paleontology** | | | | |
| Seismic Hazards | LTS | LTS | LTS | LTS |
| Soil Erosion | LTS | LTS | LTS | LTS |
| Unstable Soils | LTS | LTS | LTS | LTS |
| Expansive Soils | LTS | LTS | LTS | LTS |
| Septic Systems | LTS | LTS | LTS | LTS |
| Paleontological Resources | LTSM | SU | LTSM | LTSM |

**Table 4.4-1: Summary of Impacts for Alternatives**

| | *Level of Significance* | | | |
|---|---|---|---|---|
| *Impact* | *Proposed Project* | *No Project Alternative* | *Alternative 1* | *Alternative 2* |
| **Hazards, Hazardous Materials, and Wildfire** | | | | |
| Transport, Use, or Disposal | LTS | LTS | LTS | LTS |
| Accidental Upset | LTS | LTS | LTS | LTS |
| Quarter-Mile of Schools | LTS | LTS | LTS | LTS |
| Cortese List | LTS | LTS | LTS | LTS |
| Airport Hazards | NI | NI | NI | NI |
| Emergency Response | LTS | LTS | LTS | LTS |
| Wildland Fires | LTS | LTS | LTS | LTS |
| Wildfire Emergency Response | LTS | LTS | LTS | LTS |
| Wildfire Pollutants | LTS | LTS | LTS | LTS |
| Wildfire Infrastructure | LTS | LTS | LTS | LTS |
| Wildfire Hazards | LTS | LTS | LTS | LTS |
| **Hydrology and Water Quality** | | | | |
| Water Quality Standards | LTS | LTS | LTS | LTS |
| Groundwater | LTS | LTS | LTS | LTS |
| Drainage | LTS | LTS | LTS | LTS |
| Pollutants | LTS | LTS | LTS | LTS |
| Water Quality Control Plan | LTS | LTS | LTS | LTS |
| **Land Use and Housing** | | | | |
| Division of a Community | LTS | NI | LTS | LTS |
| Conflict with Land Use Plan | LTS | NI | LTS | LTS |
| Displacement | LTS | LTS | LTS | LTS |
| **Noise** | | | | |
| Ambient Noise Increase | LTS | LTS | LTS | LTS |
| Groundborne Vibration or Noise | LTS | LTS | LTS | LTS |
| Airport Noise | NI | NI | NI | NI |
| **Public Facilities and Recreation** | | | | |
| Public Facilities | LTS | LTS | LTS | LTS |
| Deterioration of Parks and Recreational Facilities | SU | SU | SU | SU |
| Construction of Recreational Facilities | LTS | LTS | LTS | LTS |
| **Transportation** | | | | |
| Circulation Plan | LTS | LTS | LTS | LTS |
| Vehicle Miles Traveled | SU | SU | SU | SU |
| Emergency Access | LTS | LTS | LTS | LTS |
| Traffic Hazards | LTS | LTS | LTS | LTS |

**Table 4.4-1: Summary of Impacts for Alternatives**

| | *Level of Significance* | | | |
|---|---|---|---|---|
| *Impact* | *Proposed Project* | *No Project Alternative* | *Alternative 1* | *Alternative 2* |
| **Utilities and Service Systems** | | | | |
| Water or Wastewater Facilities | LTS | SU | LTS | LTS |
| Water Supply | LTS | LTS | LTS | LTS |
| Wastewater Capacity | LTS | LTS | LTS | LTS |
| Solid Waste Reduction Goals | LTS | LTS | LTS | LTS |
| Solid Waste Regulations | LTS | LTS | LTS | LTS |

Notes:

LTS = Less than Significant

LTSM = Less than Significant with Mitigation

NI = No Impact

SU = Significant and Unavoidable

*Source: Dyett & Bhatia, 2019.*

# 5 CEQA Required Conclusions

This section presents a summary of the impacts of the Proposed Project in several subject areas specifically required by CEQA, including growth-inducing impacts, cumulative impacts, significant and unavoidable impacts, significant irreversible environmental changes, and impacts found not to be significant. These findings are based, in part, on the analysis provided in Chapter 3: Environmental Settings and Impacts.

## 5.1 Growth-Inducing Impacts

CEQA Guidelines require that an EIR "discuss the ways in which the proposed project could foster economic or population growth, or the construction of additional housing, either directly or indirectly" (CEQA Guidelines Section 15126.2(d)). Housing is addressed in Section 3.9; this section focuses on overall growth effects.

Growth can be induced in several ways, such as through the elimination of obstacles to growth, through the stimulation of economic activity within the region, through the construction of infrastructure, or through the establishment of policies or other precedents that directly or indirectly encourage additional growth. In general, a project may foster spatial, economic, or population growth in a geographic area if the project removes an impediment to growth (for example, the establishment of an essential public service, the provision of new access to an area; a change in zoning or general plan amendment approval); or economic expansion or growth occurs in an area in response to the project (for example, changes in revenue base, employment expansion, etc.).

Growth-inducing impacts, such as those associated with job increases that might affect housing and retail demand over an extended time period, are difficult to assess with precision, since future economic and population trends may be influenced by unforeseeable events such as business development cycles and natural disasters. Moreover, long-term changes in economic and population growth are often regional in scope; they are not influenced solely by changes or policies related to a single city or development project. Business trends are influenced by economic conditions throughout the state and country, as well as around the world. Other factors that influence new development and population growth include economic factors such as employment opportunities; the availability of adequate infrastructure like public schools, roadways, and sewer service; local land use policies in the affected communities; and constraints on the use of areas like sensitive habitats.

Another consideration is that the creation of growth-inducing potential does not automatically lead to growth. Growth occurs through capital investment in new economic opportunities by the private or public sector. These investment patterns reflect, in turn, the desires of investors to mobilize and

allocate their resources to development in particular localities and regions. These factors, combined with the regulatory authority of local governments, mediate the growth-inducing potential or pressure created by a proposed plan. Despite these limitations on the analysis, it is still possible to qualitatively assess the general potential growth-inducing impacts of the Proposed Project.

## GROWTH HISTORY AND PROJECTIONS

The Southern California Association of Governments (SCAG) is the key regional agency involved in forecasting growth in Los Angeles County. Although SCAG can forecast growth, it does not have authority to approve or deny land use plans or development projects.

### Population Growth

According to SCAG's Local Profiles 2019 report (SCAG 2019), between 2000 and 2018, the total population of the City of Diamond Bar increased by about 1,100, which represents a total growth rate of 2.1 percent compared to the Los Angeles County rate of 8 percent. Approximately 0.6 percent of the total population of Los Angeles County is in the City of Diamond Bar. The annual growth rate in the City has been only about 0.2 percent. Since 1990, the City's overall population growth has not kept pace with the region or County's growth due to the fact that the City is largely built out and there are limited current opportunities for housing development. For comparison, the state's population grew by 15 percent over the same time period largely due to more opportunities for housing development.

SCAG projects that the region will add 3.8 million residents, 1.5 million households, and 2.4 million jobs over the 2012 – 2040 planning horizon. SCAG estimates that population and households are projected to grow at the annual average growth rate of 0.7% during the same period, while employment would grow faster at 2 percent until 2020, and then stabilize at 0.7 percent (SCAG 2016).

Existing population and anticipated future population, based on buildout of the Proposed Plan is shown in Table 5.1-1, which is the same as Table 2.3-2 in Chapter 2, Project Description. A total addition of 8,832 residents over the next 20 years represents an annual growth rate of less than one percent.

**Table 5.1-1: Projected Residential Buildout and Population (2040)**

| | *Existing (2016)* | *Future Development* | *2040 Total* |
|---|---|---|---|
| **Housing Units** | **18,913** | **3,264** | **22,177** |
| Single-Family Residential | 13,252 | 142 | 13,394 |
| Multi-Family Residential | 5,661 | 3,122 | 8,783 |
| **Households** | **18,308** | **3,226** | **22,533** |
| **Population** | **57,853** | **8,832** | **66,685** |

*Source: CA Department of Finance, 2016; Dyett and Bhatia, 2017; Los Angeles County Assessor, 2014; the 2015 Q2 California Employment Development Department.*

In comparison to the Proposed Project buildout, SCAG forecasts that Diamond Bar will reach a population of 63,900 by 2040, with 21,200 households and 19,300 jobs (SCAG 2016). However,

SCAG's estimate is based on the existing general plan land use designations and the amount of developable land under those designations. The City is largely built out, under the existing General Plan. The City has identified a need for both housing and employment to meet current and projected demand. While buildout of the proposed General Plan would exceed SCAG's population growth estimates for 2040, the proposed General Plan is designed to accommodate this housing and employment need. Buildout under the proposed General Plan would result in a jobs to housing ratio of 0.98 compared to 0.90 under SCAG's projections, and an overall increase over the existing jobs to housing ratio of 0.78.

### Employment Growth

With an increase in jobs in the post-recession period, the SCAG region's economy returned to normal with an unemployment rate of 6.6 percent in 2015. The region is expected to add 1.9 million jobs, from 8 million in 2015 to 9.9 million in 2040 (SCAG 2016).

Employment has decreased about 8 percent in Diamond Bar over the past 10 years (2007 – 2017) (SCAG 2019). However, the proposed General Plan includes opportunities for employment growth, based on assessment of economic factors and potential demand. The projected number of future jobs was added to the estimated number of existing jobs (as of 2016). Table 5.1-2 describes projected non-residential development in terms of square feet and potential jobs.

**Table 5.1-2: Projected Non-Residential Buildout and Population (2040)**

| | *Existing (2016)* | *Future Development* | *2040 Total* |
|---|---|---|---|
| **Non-Residential (sq ft)** | **5,564,484** | **1,617,583** | **7,182,066** |
| Retail | 586,659 | 607,283 | 1,193,942 |
| Office | 2,406,803 | 519,892 | 2,926,694 |
| Industrial | 1,052,869 | (203,001) | 849,868 |
| Other | 1,518,153 | 693,409 | 2,211,562 |
| **Jobs** | **14,702** | **7,042** | **21,744** |
| Retail | 1,467 | 1,613 | 3,079 |
| Office | 7,334 | 4,102 | 11,436 |
| Industrial | 2,106 | (406) | 1,700 |
| Other | 3,795 | 1,734 | 5,529 |

*Source: CA Department of Finance, 1/1/2015; Dyett and Bhatia, 2017; Los Angeles County Assessor, 2014; the 2015 Q2 California Employment Development Department.*

## DIRECT AND INDIRECT GROWTH

As shown in Tables 5.1-1 and 5.1-2, the Proposed Project would support a degree of anticipated growth in the City of Diamond Bar and this direct growth is analyzed throughout this EIR. Impacts of growth on infrastructure such as public services and utilities, the transportation system, and natural resources are identified, based on the buildout of the Proposed Project. Some of the identified effects of growth are significant and unavoidable (e.g., VMT increases); others are significant but can be mitigated. In general, future development would be subject to additional site-specific environmental review under CEQA.

Given Diamond Bar's relatively moderate population size compared to Los Angeles County overall, it is unlikely that growth within the City will cause substantial pressure for growth elsewhere in the County (indirect growth). Furthermore, the County growth rate has been much higher than the City's between 2000 and 2018. Growth under the Proposed Project would primarily serve the local community and would accommodate existing and projected demand. Growth under the proposed General Plan is concentrated in four focus areas, including a new Town Center and mixed-use neighborhoods. Growth in these focus areas would increase available jobs, retail and entertainment opportunities, and access to transit options that would serve the largely residential community of Diamond Bar. As stated, employment and housing growth under the proposed General Plan would increase the City's jobs to housing ratio and therefore increase job availability for area residents. Housing growth under the Proposed Project would be sufficient to accommodate the associated increase in population.

### REMOVAL OF OBSTACLES TO GROWTH

The existing General Plan could be viewed as an obstacle to growth, given that the City is almost built out under existing land use designations. By updating the General Plan, the Proposed Project could be viewed as removing an obstacle to growth. There is an existing demand for both residential and employment growth, which the City is trying to accommodate by revising some land use designations. Redevelopment of several sites within the City and implementation of numerous policies intended to reduce overall impacts will allow additional growth in a more compact and efficient manner. Specific impacts resulting from this change are analyzed by resource area in Chapter 3 of this EIR.

## 5.2 Cumulative Impacts

CEQA requires that an EIR examine cumulative impacts. As discussed in CEQA Guidelines Section 15130(a)(1), a cumulative impact "consists of an impact which is created as a result of the combination of the project evaluated in the EIR together with other projects causing related impacts." Furthermore, the analysis of cumulative impacts need not provide the level of detail required of the analysis of impacts from the project itself, but shall "reflect the severity of the impacts and their likelihood of occurrence." (CEQA Guidelines Section 15130(b)).

In order to assess cumulative impacts, an EIR must analyze either a list of past, present, and probable future projects or a summary of projections contained in an adopted general plan or related planning document. Because it is a long-range, programmatic plan for an entire city and surrounding area, the Proposed Project represents the cumulative development scenario for the reasonably foreseeable future in the Planning Area, and this analysis uses the summary projections of the Proposed Project. This analysis uses the forecast method for transportation-related impacts (including transportation-related noise, air quality, and greenhouse gas impacts), by utilizing the transportation model described in Section 3.12. Therefore, in general, the analysis presented in Chapter 3 represents a cumulative impact evaluation in the Planning Area. Cumulative effects for the region are summarized as follows, for each issue area addressed in Chapter 3.

## AESTHETICS

Reasonably foreseeable growth within the Los Angeles County region, including Diamond Bar, could have cumulative effects on the region's aesthetic character. The Planning Area is characterized by residential neighborhoods and prominent natural features, such as the Tres Hermanos Ranch and surrounding hillsides. Development to accommodate new residents and jobs may impact scenic vistas should it encroach on open hillsides in areas surrounding Diamond Bar. Various proposed policies ensure that scenic quality is maintained in Diamond Bar, including those that address hillside development, open space preservation, and sensitive transitions between new and existing development. Additionally, it is unlikely that significant growth will occur in Diamond Bar's Sphere of Influence, which has been designated by Los Angeles County and the General Plan as a Significant Ecological Area (SEA). The SEA designation limits development as per the SEA Ordinance, and contains large swaths of Hillside Management Areas (HMAs), where development is limited by the Los Angeles County HMA Ordinance and Hillside Design Guidelines. Given such regulations, the Proposed Project's contribution to impacts related to scenic vistas and visual character in a non-urbanized area would not be cumulatively considerable.

Proposed General Plan policies are consistent with regulations governing scenic quality and would not result in a cumulatively considerable impact. No State scenic highway is located within the Planning Area, and any development in the vicinity of scenic highways would be subject to policies within the Los Angeles County General Plan and Los Angeles County Code of Ordinances. Thus, the Proposed Project's contribution to this cumulative impact is not cumulatively considerable.

While the Los Angeles County region, including Diamond Bar, is expected to experience substantial population growth, development to accommodate new jobs and residents would not have a cumulatively considerable impact on light and glare in the Planning Area given compliance with the Diamond Bar Code of Ordinances and proposed General Plan policies related to buffering between development and sensitive habitats, and between new development and existing uses.

## AIR QUALITY

By its nature, the air quality analysis presented in Chapter 3.2 represents a cumulative analysis of air quality emissions through 2040, because the effects specific to the Proposed Project cannot reasonably be differentiated from the broader effects of regional growth and development. As a result of increasing the amount of development through the proposed General Plan, criteria air pollutants generated under implementation of the Proposed Project is the cumulative condition for CEQA purposes.

Implementation of the Proposed Project would be consistent with the control strategies and growth projections within the SCAQMD air quality management plan given compliance with State and local regulations for construction-related emissions and proposed General Plan policies intended to reduce VMT and resulting regional mobile source emissions. Therefore, impacts related to consistency would be less than cumulatively considerable.

Implementation of the Proposed Project would result in a cumulatively considerable net increase in emissions of VOC and NOx from construction activities and VOC, NOx, CO, PM2.5, and PM10 for operational activities. Mitigation would be required (MM-AQ-1) to reduce construction related VOC and NOx emissions. However, the exact emissions from construction cannot be quantified without full detail of the development projects to be implemented and the extent to which

mitigation can be applied, and compliance with State and local regulations and proposed General Plan policies would not be sufficient to reduce operational emissions. Therefore, impacts to the region's attainment status for the above criteria pollutants would be cumulatively considerable. Similarly, mitigation would not be sufficient to reduce cumulative impacts associated with construction and operation related toxic air contaminant emissions and health impacts, making impacts to sensitive receptors also cumulatively considerable. While impacts related to odors would be less than significant, operational activities under the proposed General Plan may result in cumulatively considerable emissions of CO.

Future development would be required to comply with state and local regulations and proposed General Plan policies; however, there is no way to determine the extent to which these regulations would be implemented and no mitigation measures beyond strategies in these plans that would definitively reduce impacts below regulatory thresholds. Therefore, implementation of the Proposed Project would have a cumulatively considerable impact on long-term regional emissions.

## BIOLOGICAL RESOURCES

Implementation of the Proposed Project, in combination with other reasonably foreseeable future projects in the region, will contribute incrementally to the continuing reduction in relatively natural, undisturbed open space areas and contribute to the progressive fragmentation of habitat areas and decline in species diversity throughout the region. The degree to which the Proposed Project's contribution will result in a significant cumulative effect, however, is a matter for speculation due to the absence of planned land uses in the City's focus areas.

Also of note, the General Plan does not propose any development in the SOI, and designates this area as a Significant Ecological Area subject to Los Angeles County regulations which allow for limited, controlled development that does not jeopardize the unique biotic diversity. Based on the project's resource conservation policies, the mitigation measures contained herein (MM-BIO-1A through MM-BIO-1K, MM-BIO-2, MM-BIO-3, MM-BIO-4, MM-BIO-5, MM-BIO-6), lawsuits filed by the cities of Diamond Bar and Chino Hills opposing the development of Tonner Canyon as a solar field, and the formation of the Tres Hermanos Conservation Authority, the project's contribution to cumulative impacts are not expected to be significant.

In the cases of any impacts on biological resources identified in the future that could be significant, mitigation identified in Section 3.3 for the Proposed Project would avoid, minimize and/or compensate for adverse effects such that the cumulative impact is less than significant. In particular, this is the circumstance for impacts on sensitive plant and animal species, sensitive natural communities, regulated waters and wetlands, oak woodlands, and wildlife movement corridors.

## CULTURAL, HISTORIC, AND TRIBAL CULTURAL RESOURCES

While there are no federally or state designated or listed historic properties within the City, development and population growth under the Proposed Project could result in cumulative impacts on historic resources as the City of Diamond Bar has not been subject to a comprehensive Citywide historic resources survey and all historic-age structures are potential historical resources. Therefore, even with implementation of proposed General Plan policies and mitigation (MM-CULT-1), the Proposed Project's contribution would be cumulatively considerable.

There are ten recorded archaeological resources within the Planning Area, including seven prehistoric and three historic-period resources, and additional unrecorded archaeological resources have the potential to exist. Anticipated development projects under the Proposed Project may involve grading, excavation, or other ground-disturbing activities, which could have a cumulatively considerable impact on unknown archaeological resources. Given compliance with proposed General Plan policies, as well as applicable local, state and federal laws and MM-CULT-2, the Proposed Project's contribution to this impact would not be cumulatively considerable.

All development projects allowed under the Proposed Project would be required to comply with state laws pertaining to the discovery of human remains and disposition of Native American burials; therefore, the Proposed Project would have a less than cumulatively considerable contribution to impacts related to human burials.

While there are no recorded Native American resources within the Planning Area, development projects allowed under the Proposed Project may result in the identification of unrecorded tribal cultural resources given the historic occupation of the area. Future projects that would not otherwise qualify for an exemption under CEQA would be required to comply with the provisions of AB 52 to incorporate tribal consultation into the CEQA process. Proposed General Plan policies would further address impacts to tribal cultural resources by requiring the City of Diamond Bar to establish development processes to avoid the disturbance of tribal cultural resources and create project-specific Native American consultation early in the development review process. Therefore, the Proposed Project's contribution to this cumulative impact is not cumulatively considerable.

## ENERGY, CLIMATE CHANGE, AND GREENHOUSE GASES

By its nature, the analysis of greenhouse gas emissions presented in Chapter 3.5 represents a cumulative analysis of GHG emissions through 2040. CEQA Guidelines state that a project's incremental contribution may be cumulatively considerable even if it appears relatively small compared to statewide, national or global emissions. CEQA Guidelines also establish that a project's incremental contribution to a cumulative effect is not cumulatively considerable if the project will comply with the requirements in a previously approved plan or mitigation program that provides specific requirements that will avoid or substantially lessen the cumulative impact on GHG emissions within the geographic area in which the project is located. Therefore, the cumulative analysis is identical to the Proposed Project analysis.

Implementation of proposed General Plan policies aimed at reducing VMT would enhance Federal, State, and local regulations in order to provide GHG emissions reductions specific to the City with respect to mobile sources and energy consumption. Implementation of the Proposed Project would generate GHG emissions below existing conditions levels and meet per capita emissions targets for 2030 and 2040, while easily meeting the SB 32 goal of 40 percent below 1990 levels and demonstrating progress towards the EO S-3-05 goal of 80 percent below 1990 levels. Therefore, the Proposed Project would have a less than cumulatively considerable contribution to this impact.

The Proposed Project would be consistent with, and in some cases further the goals of, policies and regulations established for the reduction of GHG emissions and therefore would have a less than cumulatively considerable contribution to this impact. Specifically, one component of the Proposed Project is a Climate Action Plan which demonstrates consistency with goals presented in the 2017 CARB Scoping Plan, AB 32, SB 32, and EO S-3-05.

Future development and population growth associated with the Proposed Project would result in the increased use of electricity and natural gas resources and associated infrastructure. SCE, the electricity service provider for the Planning Area, has determined that the use of such resources would be minor compared to existing supply and infrastructure within the SCE service area and would be consistent with growth expectations. Similarly, the use of natural gas resources would be on a relatively small scale and would be consistent with the growth expectations for the Planning Area's natural gas service provider, SoCal Gas. Development projects anticipated by the Proposed Project would be required to incorporate energy conservation features in order to comply with applicable mandatory regulations including CALGreen Code, state energy standards under Title 24. Therefore, impacts on electricity and natural gas consumption under the Proposed Project would be less than cumulatively considerable.

While growth within the Planning Area and region is anticipated to increase the demand for transportation and total VMT, development projects anticipated by the Proposed Project would be required to demonstrate consistency with Federal and State fuel efficiency goals and incorporate mitigation measures as required under CEQA. Siting land use development projects at infill sites is consistent with the State's overall goals to reduce VMT pursuant to SB 375., and VMT per capita would decrease compared to existing conditions. Therefore, development anticipated by the Proposed Project would have a less than cumulatively considerable contribution to transportation energy.

All development projects anticipated by the Proposed Project would be required to comply with CALGreen and Title 24 energy efficiency requirements and other regulations, which would reduce energy consumption by promoting energy efficiency and the use of renewable energy. The Proposed Project includes policies designed to reduce VMT (including traffic calming measures and expansion of pedestrian and bicycle infrastructure) and prioritizes mixed-use and infill developments that would support development of compact communities in existing urban areas and reuse developed land served by high quality transit. Therefore, the Proposed Project would be consistent with the guidance provided in the SCAG 2016 RTP/SCS. Proposed General Plan policies and mitigation would further reduce emissions associated with new development through increased energy efficiency, renewable energy generation, improved transit, and reduced consumption and waste. Therefore, impacts on the implementation of a State or local plan for renewable energy or energy efficiency would be less than cumulatively considerable.

## GEOLOGY, SOILS, SEISMICITY, AND PALEONTOLOGY

The Planning Area is located within a geographic area that is considered active or potentially active by the California Geological Survey and contains expansive soils. The cumulative increases in population and development that would result from implementation of the full buildout would increase the number of residents and employees exposed to the region's known seismic hazards; however, conformance with the California Building Code and proposed General Plan policies would preserve building integrity during a seismic event, and other regulatory measures would reduce geohazards impacts to a less-than-significant level. As a result, cumulative impacts would be minimized and would be less than significant.

The Planning Area has a low-to-high potential for paleontological resources, and significant fossil discoveries have occurred within the Planning Area and nearby. Future development projects anticipated by the Proposed Project may involve grading, excavation, or other ground-disturbing

activities, which could destroy unknown paleontological resources. Consequently, the proposed General Plan may have the potential to contribute to cumulative impacts on paleontological resources. However, with implementation of proposed General Plan policies, as well as applicable local, state and federal laws and MM-GEO-1 and MM-GEO-2, the Proposed Project's contribution to this cumulative impact is not cumulatively considerable.

## HAZARDS, HAZARDOUS MATERIALS, AND WILDFIRE

Projected population and employment growth in the Planning Area would increase the number of people potentially exposed to impacts from hazardous material transportation, the increased use of hazardous household, commercial, and industrial materials, as well as a cumulative increase in exposure to risk associated with the accidental release of hazardous materials into the environment. However, compliance with local, State, and federal regulations pertaining to the production, use, and transportation of hazardous materials would apply to development throughout the region; therefore, the Proposed Project's contribution to this potential cumulative impact is less than cumulatively considerable.

Very High Fire Hazard Severity Zones (VHFHSZ) are present in several locations within the Planning Area. Implementation of the Proposed Project would result in development located within VHFHSZs or State Responsibility Areas (SRA), which may constitute a significant impact related to wildfire hazards. However, restrictions on development in these areas will ensure that development intensification within or around VHFHSZs and SRAs would not be cumulatively considerable.

Proposed General Plan policies would support the City of Diamond Bar's commitment to providing emergency services and coordinating with regional agencies, and would therefore ensure that proposed development would have less than cumulatively considerable impacts on the implementation of emergency response plans.

Projected population growth and development anticipated by the Proposed Project would increase the number of people exposed to pollutant concentrations associated with the spread of wildfire. Compliance with proposed General Plan policies related to hillside development and protection of sensitive receptors, Los Angeles County's Hillside Management Ordinance, and SCAQMD air quality advisory programs would ensure that impacts on project occupants would be less than cumulatively considerable. Given that the Proposed Project locates areas of potential development away from VHFHSZs and SRAs, compliance with proposed General Plan policies aimed at mitigating fire risk and existing local and regional regulations and programs would have a less than cumulatively considerable contribution to fire risk.

Finally, should development occur in VHFHSZs or SRAs, the proposed General Plan contains policies that address geologic risk, including potential exposure to landslides and slope instability and would have a less than cumulatively considerable contribution to wildfire risk and associated effects on soil and water movement.

## HYDROLOGY AND WATER QUALITY

Future development under the proposed General Plan could result in impacts on water quality, hydrology, flooding, or other inundation hazards; however, federal, State, and local regulations, as well as policies in the Proposed Project would ensure that impacts would be less than significant.

Compliance with the GLACR IRWM Plan would ensure water quality standards are not violated and would ensure protection of water quality during construction and operation of future development within the City. In addition, the Proposed Project goals and policies would further reduce any potential impacts by ensuring compliance with the City's NPDES permit, Water Pollution Ordinance (Sec. 13.00.050), Floodplain Management Ordinance (Sec. 18.108.010), and Stormwater and Urban Runoff Pollution Control Ordinance (Sec. 8.12.1630). Potential flooding impacts would be avoided through compliance with the City's Floodplain Management Ordinance (Sec. 18.108.010) and the proposed General Plan goals and policies, which preserve open space and reduce impervious surfaces. Implementation of the Proposed Project would therefore result in less than significant impacts on hydrology, flooding, and water quality and its contribution to potential cumulative impacts would not be considerable.

## LAND USE AND HOUSING

Projects that could have the effect of physically dividing an established community – such as a major new road, highway, or similar infrastructure – tend to have a singular rather than cumulative impact. Similarly, impacts from plans and projects in the region that could conflict with existing plans, including habitat conservation plans, are not cumulative in nature. However, potential impacts related to population and housing can be cumulative in nature. Population growth, by itself, is not an environmental impact; however, the direct and indirect effects, such as housing and infrastructure needs that are related to population growth, can lead to physical environmental effects. Growth-inducing impacts associated with population growth are discussed above in Section 5.1. The majority of developed land in the Planning Area is comprised of residential uses, which are not anticipated to undergo significant land use changes under the Proposed Project. The Proposed Project anticipates that the overall number of dwelling units will increase by prioritizing mixed-use and infill development in vacant and underutilized areas in Diamond Bar, while seeking to preserve existing neighborhoods, providing housing to serve the diverse needs of the community at various socioeconomic levels, and encouraging the development of new jobs and businesses while fostering existing ones. Therefore, the Proposed Project would have a less than cumulatively considerable contribution to impacts on land use and housing.

## NOISE

The noise analysis represents cumulative analyses of issues through the proposed General Plan because it combines the anticipated effects of the proposed General Plan with anticipated effects of regional growth and development. By its nature, the noise analysis represents a cumulative analysis, because the effects specific to the Proposed Project cannot reasonably be differentiated from the broader effects of regional growth and development. Thus, the noise analysis reflects not just growth in the Planning Area, but growth elsewhere in the region as well. Consequently, the impact significance conclusions discussed in Chapter 3.10 are representative of cumulative impacts.

The Proposed Project would result in both short-term and long-term changes to the existing noise environment in the Planning Area. Long-term operational noise from traffic would increase compared to existing conditions. Proposed General Plan policies prohibit development of noise sensitive land uses in certain scenarios, require noise mitigation measures, and require acoustical analyses to ensure noise exposure standards are met. These policies would reduce potential construction and operational noise impacts to new development to a less than significant level. Impacts of new traffic noise on existing sensitive receptors, such as the residences near the roadway segments that would experience future noise levels less than 3 dBA CNEL in 2040 with the Proposed

Project over existing conditions, would be less than significant, and therefore, would not result in a cumulative impact. As with noise, construction and operation vibration impacts of the Proposed Project would result in less than significant impact, and therefore, would not result in a cumulative impact. The Proposed Project would result in no impact from airport noise, and therefore, would not result in a cumulative impact.

## PUBLIC FACILITIES AND RECREATION

Future development and population growth anticipated by the proposed General Plan would generate additional demand for public services and public facilities including parks and recreational facilities. Policies included in the Proposed Project related to fire education and public safety programs would help to keep service demand increases to a minimum. In addition, the Proposed Project promotes a relatively compact development pattern with infill development, thus ensuring that new development would be located close to existing fire and police stations. Given that implementation of the Proposed Project would coincide with a decline in Diamond Bar public school enrollment rates, impacts on schools would not be cumulatively considerable. Population growth anticipated by the Proposed Project would not result in the need for new public facilities such as libraries, and new facilities would be subject to CEQA Guidelines, proposed General Plan land use designations, and proposed General Plan policies related to construction impacts. Therefore, impacts would be less than cumulatively considerable.

The Proposed Project would not provide sufficient park access to all residents within the Planning Area, and projected population growth may result in a cumulatively considerable impact on parkland. There is no feasible mitigation available that would increase parkland to the extent necessary to achieve the City's target of 5.0 acres of parkland per 1,000 residents. Therefore, the Proposed Project would a cumulatively considerable impact on the overuse and degradation of existing park facilities. The proposed General Plan contains plans for additional recreational facilities in the Planning Area and calls for the continued support and adequate provision of library services, adult education programs, and community centers, in keeping with the needs and preferences of the population. Elements of the proposed General Plan are designed to minimize potentially cumulatively considerable environmental impacts of new development, including developing sustainable park and recreational facility design and planning standards.

## TRANSPORTATION

By its nature, the transportation analysis presented in Chapter 3 represents a cumulative analysis of transportation conditions through 2040. As a result of the amount of development anticipated by the proposed General Plan, the Proposed Project's travel demand and VMT is the cumulative condition for CEQA purposes. Under the proposed General Plan cumulative scenario, VMT is expected to increase compared to existing conditions. Per CEQA Guidelines section 15064.3, this constitutes a considerable contribution to the significant impact regarding VMT.

The proposed General Plan would have a less than cumulatively considerable contribution towards conflicts with programs and plans that address the circulation system given that the proposed General Plan includes multiple policies that improve multi-modal mobility and would expand the existing bicycle and pedestrian facilities while accommodating vehicle traffic. Additionally, the proposed General Plan would have a less than cumulatively considerable impact on hazards and emergency access.

### UTILITIES AND SERVICE SYSTEMS

Future development anticipated by the proposed General Plan would generate additional demand for water and wastewater, stormwater, and solid waste services; however, compliance with federal, State, and local regulations, as well as policies in the proposed General Plan would ensure that impacts of the Proposed Project would be less than significant. Cumulative development would also be subject to compliance with federal, State and local regulations. Therefore, implementation of the proposed General Plan would not result in a considerable contribution to cumulative impacts on utilities and service system.

## 5.3 Significant and Unavoidable Impacts

Significant unavoidable impacts are those that cannot be mitigated to a level that is less than significant. According to CEQA Guidelines 15126.2(b), an EIR must discuss any significant environmental impacts that cannot be avoided under full implementation of the proposed program, including those that can be mitigated, but not to a less-than-significant level. The analysis in Chapter 3 determined that the Proposed Project would result in impacts related to cultural resources and transportation that, even with implementation of mitigation measures, would remain significant and unavoidable. These impacts are summarized below:

**Air Quality:** The South Coast Air Basin has been designated as a nonattainment area for State ozone, PM10, and PM2.5 and as a federal nonattainment area for ozone and PM10. Construction of individual projects associated with implementation of the Proposed Project could temporarily emit criteria air pollutants through the use of heavy-duty construction equipment, vehicle trips generated from workers and haul trucks, and demolition and various soil-handling activities. A quantitative analysis, based on a reasonable worst-case scenario, found that construction-related daily emissions would exceed the South Coast Air Quality Management District significance thresholds for VOCs and $NO_x$. Operation of the Proposed Project, based on a reasonable worst-case scenario, would generate criteria air pollutant emissions from Project-generated vehicle trips traveling within the City, energy sources such as natural gas combustion, and area sources such as landscaping equipment and consumer products usage. A quantitative analysis, based on a reasonable worst-case scenario, found that operational emissions for the Proposed Project would exceed regulatory thresholds for VOC, NOx, CO, PM10, and PM2.5.

Mitigation is required to ensure that future development projects incorporate measures to reduce emissions from construction activities, and would reduce $NO_x$ and VOC impacts on a project-by-project basis. However, the exact emissions from construction of the Proposed Project cannot be quantified without full detail of the development projects to be implemented and the extent to which mitigation, including mitigation measures MM-AQ-1 and MM-AQ-2, can be applied. Therefore, short-term regional construction emissions would be significant and unavoidable. Future development would be required to comply with State and local regulations, Title 24 energy efficient standards, and Proposed Project policies to reduce operational emissions. However, there is no way to determine the extent to which these regulations will be implemented nor their effectiveness. Therefore, long-term regional operational emissions would also be significant and unavoidable.

Because regional emissions exceed the SCAQMD regulatory thresholds during construction and operational activities, there is the potential that these emissions would exceed the CAAQS and NAAQS thus resulting in a health impact. Impacts may be associated with localized operational emissions or emissions of toxic air contaminants (due to diesel particulate emissions during construction and operation of diesel fueled equipment or generators during operational activities). Because the exact nature, location, and operation of the future developments are unknown, there is no way to accurately calculate the potential for health impacts from the Proposed Project. Mitigation is required to reduce impacts with respect to toxic air contaminants from construction and future development would be required to comply with State, local, and Proposed Project policies and regulations. However, as there is no way to determine the extent to which these regulations would be implemented or their effectiveness, impacts to sensitive receptors would remain significant and unavoidable.

As discussed, operational emissions for the Proposed Project would exceed SCAQMD daily emissions thresholds for CO which could adversely affect a substantial number of people. While future development would be required to comply with State, local, and Proposed Project policies and regulations, there is no way to determine the extent to which these regulations would be implemented or their effectiveness, and no further mitigation is feasible. Therefore, impacts related to long-term operational emissions of CO could have a significant and unavoidable impact on a substantial number of people. As discussed above, air quality impacts would be cumulatively considerable.

**Cultural Resources:** New construction through infill development on vacant property could result in a substantial adverse change in the significance of a historical resource through alteration of the resource's immediate surroundings. Projects that propose alteration of a historical resource and that do not adhere to Secretary of the Interior's Standards for the Treatment of Historic Properties have the potential to result in a substantial adverse change in the significance of a historical resource. Other projects that propose demolition or alteration of, or construction adjacent to, existing historic resources over 45 years in age (the California Office of Historic Preservation's age threshold for consideration as historical resources), could also result in a substantial adverse change in the significance of a historical resource. Changes in the setting of historic buildings and structures can result from the introduction of new visible features, significant landscape changes, or other alterations that change the historic integrity of the setting of a significant resource. The proposed General Plan policies would help reduce the impact by requiring that new development be compatible with the character, scale, massing, and design of existing development, which is part of the requirements of the Secretary of the Interior's Standards for the Treatment of Historic Properties. However, these policies do not require the identification and evaluation of historic-age properties to determine if there are historical resources within or nearby a proposed project site that could be adversely impacted by a proposed project, nor do they require the retention or rehabilitation of historical resources.

Mitigation is required to ensure that historical resources are properly identified and that impacts on any identified historical resources are reduced. However, impacts on historical resources that are demolished or altered in an adverse manner such that they are no longer able to convey their historical significance and such that they are no longer eligible for inclusion in the California

Register typically cannot be mitigated to a level of less than significant. [1, 2] Without information on specific future projects, it is impossible to know if future development will avoid substantial adverse impacts on historical resources, and it is reasonable to assume that some historical resources would be demolished or altered in an adverse manner over the lifetime of the General Plan. Therefore, even with mitigation, impacts on historical resources would be significant and unavoidable under the Proposed Project. As discussed above, impacts to historical resources would be cumulatively considerable.

**Transportation:** Vehicle Miles Travelled (VMT) is expected to increase under implementation of the proposed General Plan. Home-based production VMT per resident is expected to increase by five percent over existing conditions and home-based-work attraction VMT per employee is expected to increase by nine percent. Part of the increase is associated with the addition of more employment and retail opportunities within the City that have the potential to import vehicle trips from surrounding communities. Numerous proposed policies would help reduce the impact. However, even with implementation of these policies, the impact could remain significant and unavoidable. As discussed above, impacts to transportation would be cumulatively considerable.

## 5.4 Significant Irreversible Environmental Change

CEQA Guidelines require an EIR to consider whether "uses of nonrenewable resources during the initial and continued phases of the project may be irreversible since a large commitment of such resources makes removal or nonuse thereafter unlikely" (CEQA Guidelines Section 15126.2(c)). "Nonrenewable resource" refers to the physical features of the natural environment, such as land or waterways, and resources that are renewable only over long time spans, such as soil productivity. A resource commitment is considered irretrievable when the use or consumption of the resource is neither renewable nor recoverable for use by future generations. Irreversible changes and irretrievable commitments of non-renewable resources anticipated by the Proposed Project include the following issues. The Proposed Project would involve two types of resources: (1) general industrial resources including fuels and construction materials; and (2) project-specific resources such as land, biotic and cultural resources at the building sites.

Most of the Planning Area, with the exception of the unincorporated land, is located in an urban area and is almost completely developed with existing buildings and infrastructure. Future development within the Planning Area under the proposed Plan would consist of infill and redevelopment of existing buildings and structures, and would not result in significant changes in

[1] CEQA Guidelines Section 15126.4(b)(2) states that in some circumstances, documentation of an historical resource, by the way of narrative, photographs or architectural drawings, as mitigation for the effects of demolition of the resource will not mitigate the effects to the point where clearly no significant effect on the environment would occur.

[2] In League of Protection of Oakland's Architectural and Historic Resources v. City of Oakland (1997) the appellate court found that "Documentation of the historical features of the building and exhibition of a plaque do not reasonably begin to alleviate the impacts of its destruction. A large historical structure, once demolished, normally cannot be adequately replaced by reports and commemorative markers. Nor, we think, are the effects of the demolition reduced to a level of insignificance by a proposed new building with unspecified design elements which may incorporate features of the original architecture into an entirely different shopping center. This is so particularly where, as here, the plans for the substitute building remain tentative and vague. We conclude that the stated mitigation measures do not reduce the effects of the demolition to less than a level of significance."

the overall land use pattern of the Planning Area. Because the development facilitated by the Proposed Project would occur within an urban area surrounded by similar or compatible uses, it would not commit future generations to significant changes in land use.

## IRREVERSIBLE CHANGES FROM ENVIRONMENTAL ACCIDENTS

Existing and future commercial development projects in the Planning Area may transport, use, or dispose of hazardous materials; and hazardous materials could be accidently released into the environment during these activities. Accidents, such as the release of hazardous materials, may trigger irreversible environmental damage. In most circumstances, the potential risks posed by hazardous materials use and storage are primarily local and, therefore, limited to the immediate vicinity of such use. Moreover, the transport, use, and disposal of hazardous materials are heavily regulated. Compliance with existing federal, State, and local laws and regulations that are administered and enforced by the City would reduce risks associated with the routine use, storage, and transportation of hazardous materials in connection to acceptable levels, and would ensure that no significant irreversible changes from accidental releases would occur.

## COMMITMENT/CONSUMPTION OF NON-RENEWABLE RESOURCES

Implementation of the Proposed Project could result in the long-term commitment of various resources to urban development. While the proposed Plan itself would not directly entitle or result in any new development, it is reasonably foreseeable that the proposed Plan, which acts as a blueprint for growth and development in the Planning Area over the next 20 years, could result in significant irreversible impacts related to the commitment of non-renewable and/or slowly renewable natural and energy resources, such as:

**Air Quality:** Increases in vehicle trips resulting from buildout of the proposed General Plan would potentially contribute to long-term degradation of air quality and atmospheric conditions in the region. Technological improvements in automobiles, including the growth of the electric vehicle market share, may lower the rate of air quality degradation in the coming decades. Nonetheless, vehicle trips resulting from implementation of the Proposed Project could result in the irreversible consumption of nonrenewable energy resources, primarily in the form of fossil fuels, natural gas, and gasoline for non-electric automobiles and long-term degradation of air quality.

**Water Consumption:** To the extent that the proposed Plan would accommodate new population and jobs, it would increase the demand for water and place a greater burden on water supply. While additional residents and workers would use more water, the City is expected to have adequate water to meet demand in normal and wet years in 2040. Despite the change in demand resulting from the Proposed Project being marginal, the increase would represent an irreversible environmental change, as use of this resource would increase.

**Energy Sources:** Residential and non-residential developments use electricity, natural gas, and petroleum products for lighting, heating, and other indoor and outdoor power demands, while cars use both oil and gas. New development anticipated by the proposed Plan would result in increased energy use for the operation of new buildings and for transportation. This new development would therefore result in an overall increased use of both renewable and nonrenewable energy resources. To the extent that new development uses more nonrenewable energy sources, this would represent an irreversible environmental change.

### CONSTRUCTION-RELATED COMMITMENTS

Irreversible environmental changes could also occur during the course of constructing development projects anticipated by the proposed General Plan. New construction would result in the consumption of building materials (such as lumber, sand and gravel), natural gas, and electricity, water, and petroleum products to process, transport and build with these materials. Construction equipment running on fossil fuels would be needed for excavation and the shipping of building materials. Due to the non-renewable or slowly renewable nature of these resources, this represents an irretrievable commitment of resources.

However, development allowed under the proposed Plan would not necessarily result in the inefficient or wasteful use of resources. Compliance with all applicable building codes, as well as existing and proposed General Plan policies and standard conservation features would ensure that natural resources are conserved to the maximum extent feasible. It is possible that new technologies or systems will emerge, or become more cost-effective or user-friendly, to further reduce the reliance upon non-renewable natural resources. Nonetheless, future activities related to implementation of the Proposed Project could result in the irretrievable commitment of nonrenewable energy resources, primarily in the form of fossil fuels (including fuel oil), natural gas, and gasoline for automobiles and construction equipment.

## 5.5 Impacts Found Not to Be Significant

CEQA requires that an EIR provide a brief statement indicating why various possible significant impacts were determined to be not significant. Chapter 3 of this EIR discusses all potential impacts, regardless of their magnitude in all issue areas except agriculture, forestry, and mineral resources, which were determined to have negligible or no impacts as such resources generally do not occur in the Planning Area.

- **Agriculture:** Agricultural resources would not be affected by the land use changes in the proposed General Plan.
- **Forestry:** Forestry resources do not occur in the Planning Area and, therefore, would not be affected by the land use changes in the proposed General Plan.
- **Mineral Resources:** Other than a few existing idle oil wells, there are no mineral resources identified in the Planning Area and, therefore, no potential impacts on this type of resource. It does not appear that there are any active oil wells in the vicinity of proposed new development or redevelopment.

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