SAN BERNARDINO ASSOCIATED GOVERNMENTS

SAN BERNARDINO COUNTY REGIONAL GREENHOUSE GAS EMISSIONS INVENTORIES AND REDUCTION PLAN

Environmental Impact Report

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Volume IV: Draft EIR (Section 4.3 [City of Chino])

Prepared for

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4.3 CITY OF CHINO

4.3.0 Introduction to the Analysis

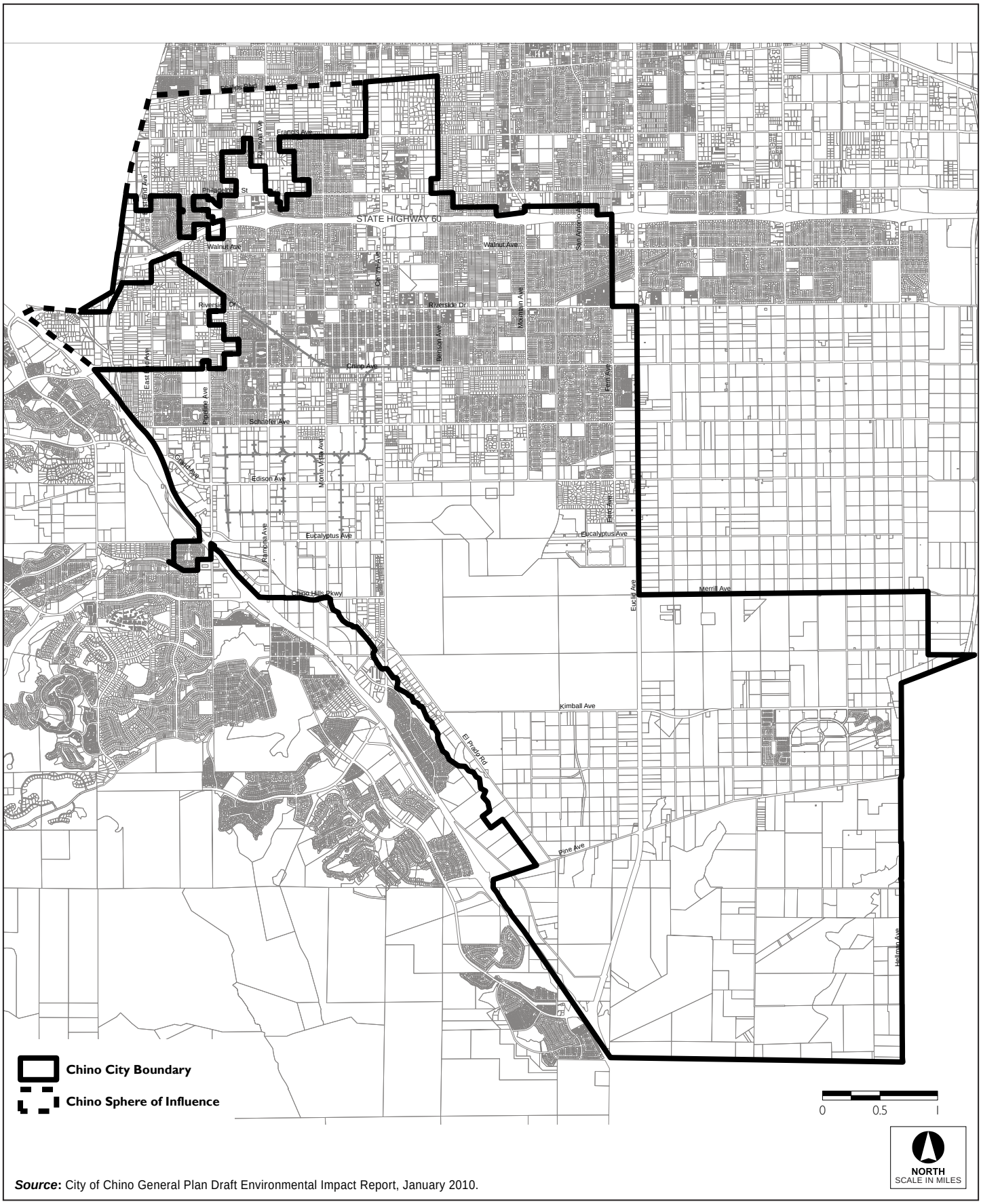
This section of the EIR analyzes the potential environmental effects in the City of Chino ("Chino" or "City") from implementation of the Regional Reduction Plan. The City is in the southwestern corner of San Bernardino County and is bounded by Chino Hills and Pomona to the west, unincorporated San Bernardino County and Montclair to the north, Ontario to the northeast, Eastvale to the southeast, and unincorporated Riverside County to the south. Chino is surrounded by the San Gabriel Mountains to the north and the Chino Hills to the south (see Figure 4.3-1 [Local Vicinity]).

The current City boundaries encompass 18,938 acres, with a sphere of influence area of 1,632 acres. California State Route 60 (SR-60) is the Pomona Freeway and runs east/west through the north of the City. California SR-71, the Chino Valley Freeway is west of the City and runs northwest/southeast.

The City of Chino occupies a strategic location at the intersection of Riverside, San Bernardino, Orange, and Los Angeles Counties. While the City's history is rooted in the agricultural and dairy industries, the development of the Chino Valley Freeway and Pomona Freeway helped shift the focus to new land uses such as residential housing, commercial centers and parks. Also, Chino's proximity to the Ontario International Airport, and easy access to major transit corridors used for the transportation of goods make it a favorable location for warehouse and distribution centers. Chino's GHG Inventory reflects these land uses. Other large regional uses such as the Chino Airport, Ayala Regional Park, and the California Institution for Men (CIM) are also located in the City.

Chino spans roughly 30 square miles and the population according to the 2010 census was 77,983. Chino is currently the eighth largest city in San Bernardino County. Chino's demographic composition in 2010 was 56.4 percent White, 6.2 percent Black, 1 percent American Indian and Alaska Native, 10.5 percent Asian, 0.2 percent Native Hawaiian and Other Pacific Islander, 21.2 percent from other races, and 4.6 percent from two or more races. Persons of Hispanic or Latino origin were 53.8 percent. Chino has a very high home ownership rate (72 percent compared to 57 percent average for the state) and also has a higher than average median household income ($71,659 versus $60,883 for the state) (U.S. Census Bureau 2012). Chino's population is expected to grow to 88,772 by 2020 (a 17 percent increase over 2008) and GHG emissions are expected to grow to 1,084,975 MT CO_2e (excluding stationary sources), an increase of 5 percent. The climate in Chino is typically sunny and warm, with more than 280 days of sun and only 17 inches of rain per year on average.

Table 4.3-1 (Socioeconomic Data for Chino) presents socioeconomic data for Chino, including population, housing (single-family and multifamily), and employment (agricultural, industrial, retail, and nonretail) (Minjares pers. comm.).



Source: City of Chino General Plan Draft Environmental Impact Report, January 2010.

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Figure 4.3-1
Local Vicinity

ATKINS

Table 4.3-1 Socioeconomic Data for Chino

Category	*2008*	*2020*
Population	75,596	88,772
Housing (DUs)	20,135	24,569
Single-Family (DUs)	14,356	17,426
Multifamily (DUs)	5,779	7,143
Employment (jobs)	48,495	53,470
Agricultural (jobs)	625	812
Industrial (jobs)	17,699	20,093
Retail Commercial (jobs)	12,547	13,067
Non-Retail Commercial (jobs)	17,624	19,498

Three documents are used in reviewing the potential environmental impacts and mitigation within the City of Chino from implementation of the Regional Reduction Plan. The first document is the Chino General Plan, known as "Envision Chino General Plan 2025", hereafter referred to as the Chino General Plan (City of Chino, July 2010), which is the planning document for the City and includes the required General Plan Elements and General Plan Goals and Policies. The second document is the Environmental Impact Report (EIR) for the Chino General Plan, which addressed the potential environmental impacts of the General Plan. Within the Chino General Plan and accompanying EIR are policies that are used in the environmental analysis to form thresholds of significance including the level of service (LOS) standard for traffic impacts as one example, and the basis for programmatic mitigation measures. The third document is the Regional Reduction Plan City of Chino chapter that describes the reduction measures and reduction targets chosen by the City of Chino. This third document is the Proposed Project as it pertains to the City of Chino.

Chino General Plan

The General Plan is the planning document for the City which consists of a vision and twelve elements that contain the goals and implementation policies for the City. The General Plan addresses the continuing change, growth, and development of the City of Chino over the next two decades and provides a public policy framework for the future of the City. The General Plan serves as a foundation in making land use decisions based on goals and policies related to land use, transportation, population growth and distribution, development, open space, resource preservation and utilization, air and water quality, noise impacts, public safety, infrastructure and other related physical, social and economic factors.

The Chino Vision describes the future community of Chino. Its basic purpose is to continue to be a vibrant, safe city with a small-town feel, emphasizing healthy, active lifestyles for Chino's residents. It is the rationale for everything the City does.

The General Plan connects intent with action through the broad range of Goals and Policies that would guide the long term growth and development required for the City to achieve its Vision. It also satisfies

the California Government Code requirement for a general plan. The General Plan includes the elements required by the State of California, as well as optional elements.

The elements in the General Plan include:

- Healthy City Element: Stand-alone goals, objectives, policies, and actions related to public health.
- Land Use Element: Guides and regulates the City's blueprint for long-range growth and development.
- Community Character Element: Identifies, protects, and enhances Chino's unique physical and visual resources. Establishes the goals and policies that will create to help the City shape its overall form and appearance in accordance with the community's fundamental values.
- Economic Development Element: Facilitate and maintain a balanced mix of economic activity and to encourage the development of particular economic sectors in Chino. The Economic Development Element contains goals, objectives, policies, and actions to encourage the development of desired economic activities throughout the City, as well as ensure the fiscal vitality of the community.
- Safety Element: Provides policies to protect the community from risks associated with the effects of flooding, seismic and other geologic hazards, and wildland fires.
- Public Facilities and Services Element: Ensure community facilities and infrastructures are available to support existing development, to permit orderly growth, and to promote public health, safety, and welfare.
- Air Quality Element: Outline goals, objectives, policies, and actions to mitigate the air pollution impacts of land use, the transportation system, and other activities that occur in Chino.
- Transportation Element: Specify the general location and extent of existing and proposed major streets and other transportation facilities.
- Open Space and Conservation Element: Addresses the preservation of open space and conservation, development, and utilization of natural resources.
- Parks and Recreation Element: Address the need for the preservation of open space lands and conservation and thoughtful management of natural assets, including watershed, wildlife habitat and scenic resources.
- Noise Element: Coordinate the various land uses with the existing and future noise environment, and to ensure that any negative effects of noise are minimized or avoided.
- Housing Element: Identify and analyze the community's housing needs and provide goals, policies, quantified objectives, financial resources, and scheduled programs for the preservation, improvement, and development of housing.

Policies in the Chino General Plan govern the decisions of the City. For the purposes of this study, the measures that impact the environment are shown in Table 4.3-2 (Chino General Plan Policies). Each of the elements contains maps and text setting forth goals, policies and programs for the long-range physical development within the City's planning area.

Table 4.3-2 Chino General Plan Policies

Objective No.	*Policies*
	HEALTHY CITY ELEMENT
HC-1.2	**P1.** Encourage restaurants to voluntarily eliminate transfats from their menus.
	COMMUNITY CHARACTER ELEMENT
CC-1.1	**P1.** New development projects shall be approved only if they meet the design principles set forth in this Community Character Element and in any detailed design guidelines that may be approved by the Planning Commission or City Council. **P2.** All new development and redevelopment shall adhere to the basic principles of high-quality community design as described in this Element. **P3.** New development and redevelopment shall include appropriate green spaces, such as community squares, parks, rooftop gardens, and plazas. **P4.** Sound walls should be avoided wherever possible, except adjacent to freeways or other noise-generating facilities. Where they are allowed, they should be built of high quality materials and provide visual relief through the use of a mixture of materials, landscaping, walkways and greenbelts. Additional landscape areas shall be provided between sound walls and rights-of-way to mitigate the height of walls. **P5.** Lighting on private and public property should be designed to provide safety, while minimizing light spillage to adjacent properties and the night sky. **P6.** Signs should enhance and be compatible with the character of commercial areas within the City, and should not be designed to detract from the visual environment of the City. Billboards shall not be permitted.
CC-2.1	**P1.** The City shall encourage the on-going conservation, maintenance, and upgrading of existing neighborhoods through enforcement of property maintenance codes, rapid abatement of graffiti, requirements for high quality infill development, programs for the rehabilitation of housing, and replacement of deteriorated infrastructure. **P2.** New development should preserve, restore, rehabilitate, reuse, and maintain existing buildings that have historic character or other community value. **P3.** New multi-family housing shall be in scale with surrounding residential neighborhoods and shall feature similar setbacks, complementary building arrangements, and patterns that avoid overwhelming building scale and visual obstructions. **P4.** New single-family housing shall be designed to be compatible with adjacent neighborhoods. Considerations such as building height, size, and setbacks shall be taken into consideration in order to minimize privacy impacts to adjacent homes. The scale of the new homes should not overwhelm adjacent homes. **P5.** Additions to single-family homes shall be architecturally compatible with the existing structure, as well as the neighborhood. The height and size of the addition should be similar to the scale of other homes in the neighborhood, and the addition should respect the privacy of homes on adjacent lots.
CC-2.2	**P1.** The City shall encourage a combination of retail, office, and entertainment uses (e.g. movie and performing arts theaters) in the Downtown to serve the daily and occasional needs of residents. **P2.** The City shall encourage public and publicly-oriented uses, such as post offices, meeting halls, community centers, libraries, and medical facilities, to be located in the Downtown rather than in other parts of the City. **P3.** New development in the Downtown should include a vertical mix of uses, with residences and offices above ground-floor retail space. **P4.** New development in the Downtown should include human scaled details in the design of buildings such as windows on the street, awnings, and architectural features that create a visually interesting pedestrian environment. **P5.** New development in the Downtown should include areas designed to create spaces where people can interact and socialize, such as parks, plazas or open air seating in cafes and restaurants, as well as pedestrian amenities such as awnings, pedestrian-scaled lighting, benches, and trash cans.
CC-2.3	**P1.** Ensure that private development adjacent to City entryways is compatible with entryways, and reflects a high-quality image of the City.

Table 4.3-2 Chino General Plan Policies

Objective No.	*Policies*
CC-3.1	**P1.** Every neighborhood should have at least one focal point, which should be a park, school, plaza, clubhouse, recreation center, retail, open space, or combination thereof. **P2.** Focal points shall have ample public spaces that are accessible to all citizens. **P3.** Focal points should be within ¼-mile walking distance of any point in the neighborhood.
CC-3.2	**P1.** New developments shall include a variety of architectural styles in each neighborhood and within each block. **P2.** Blocks within new developments should contain a mix of lot sizes and house sizes. Some lots may be designed to accommodate one-story houses, which generally require greater lot width to avoid front elevations of houses that are dominated by garages. **P3.** Secondary units may be allowed behind single-family homes and above garages. **P4.** Multi-family housing design shall be in scale with or transition in scale from adjoining or adjacent single-family areas through the use of similar setbacks, complementary building arrangements and architecture, gradual changes to building heights, buffer yards and the avoidance of overwhelming building scale and visual obstructions. **P5.** Multi-family housing shall generally front on a public street with varying setbacks to provide visual interest, opportunities for transitional landscaping, and varying shadow patterns. **P6.** The exterior of residential buildings shall be varied and articulated to provide visual interest to the streetscape. **P7.** The exterior of residential buildings shall be of the highest architectural design and construction quality, with attention to detail in both design and construction. **P8.** Infill development, secondary residential units, and multifamily housing shall be consistent in scale and character with existing neighborhoods. **P9.** Front yards shall be landscaped and may be paved only to the extent needed to provide garage access.
CC-3.3	**P1.** Houses, townhomes, and multi-family units should be oriented to the street, parks, or a shared commons. **P2.** Lot size and building placement on lots shall be designed to reduce the appearance of large homes close together on small lots. **P3.** Residential building setbacks from the street should be minimized and varied. **P4.** Garages for new single-family houses, duplexes, and townhouses should be subordinate in visual importance to the house itself, especially the entry. This shall be achieved by locating garages toward the back of properties, constructing alleys, limiting the width of the garage to two car spaces, building garages as separate structures from the house, requiring garages to be set back from the front facade of the house, and encouraging the orientation of garage doors at 90 degrees to the street.
CC-4.1	**P1.** Neighborhoods should generally be no more than ½-mile wide in any direction. **P2.** Neighborhoods should not be bisected by a physical barrier, such as an arterial street, a railroad track or a major drainage way. **P3.** Streets in neighborhoods shall be designed to enhance the sense of place and create a safe and comfortable pedestrian environment. **P4.** Residential block lengths should be short, typically no more than 400 feet, to create a street pattern that allows for multiple routes through a neighborhood and greater opportunities for pedestrian activity. **P5.** Where developed, alleys should provide for garage access, utility hook-ups and trash collection. **P6.** Common driveways serving multiple units should be allowed and encouraged where appropriate. **P7.** Neighborhoods should contain a variety of common destinations, such as food outlets, schools, parks and open space, and transit.

Table 4.3-2 Chino General Plan Policies

Objective No.	*Policies*
CC-4.2	**P1.** The City shall focus on physically connecting College Park and The Preserve Specific Plan areas to other, more established areas of the City through vehicular connections, bicycle and pedestrian and equestrian paths, and public transportation. **P2.** The City shall work to improve social connections between the College Park and The Preserve Specific Plan areas and the more established areas of the City by hosting events throughout the City, publicizing events City-wide, and encouraging residents to explore new areas. **P3.** The Civic Center shall have direct pedestrian, bicycle, and vehicular connections to all neighborhoods or commercial areas. **P4.** Neighborhoods should have direct pedestrian, bicycle, and vehicular connections to their focal points. **P5.** As existing areas redevelop and change over time, new and increased connections to focal points and retail areas shall be developed. **P6.** Streets shall be continuous within and between neighborhoods, including those that are built by different developers or builders. **P7.** New development projects shall not be gated communities or constructed with walls surrounding individual projects (i.e. a single developer or builder). Gated communities and walls should only be allowed on a case by case basis and will generally be considered only for projects such as "estate" developments where the minimum lot size is at least 1 acre or in housing with specialized clientele such as senior citizens. **P8.** New and existing site features, such as parks, utility easements, and drainage ways, should be improved and used as physical connections within and between neighborhoods.
CC-4.3	**P1.** Building setbacks along main streets shall be minimized to the extent that they reflect the desired character of the area. **P2.** Buildings and building entrances shall be oriented to the pedestrian environment. **P3.** Buildings shall include human-scale details such as windows facing the street, awnings, and architectural features that create a visually interesting pedestrian environment. **P4.** Buildings shall feature outdoor use areas, such as plazas and open air seating in cafes and restaurants. **P5.** Loading facilities for uses requiring delivery from large trucks shall be screened from public view and located away from residential uses. **P6.** Where possible, parking shall be located behind or on the side of buildings to reduce its visual impact. **P7.** Parking lots shall be screened with landscaping or low walls. **P8.** Parking lots shall be landscaped, including shade trees, to create an attractive pedestrian environment and reduce the impact of heat islands. **P9.** Direct and safe pedestrian connections between parking lots and buildings shall be provided, through the use of decorative paving, bollards, landscaping, lighting, or other distinctive features.
CC-4.4	**P1.** The City shall require all 6- to 8-lane arterial road medians to provide a 5- to 6-foot-wide tree buffer (parkway) between pedestrians and through traffic. **P2.** Medians shall be constructed to facilitate landscaping. The City shall coordinate landscaping plans with surrounding cities, counties, and Caltrans landscaping standards. **P3.** Whenever possible, the City shall require street trees to be planted in linear planting beds rather than tree wells in order to support long-living healthy trees. **P4.** The City shall work with developers to make every effort to save existing large trees, even if they are within proposed rights-of-way. **P5.** Maintain the City's Tree City USA designation. **P6.** Landscaping for all development types shall be designed and maintained at a high quality.

Table 4.3-2 Chino General Plan Policies

Objective No.	*Policies*
CC-5.1	**P1.** The City shall design new city-owned buildings in the Civic Center to enhance the existing urban pattern of development. A variety of styles are encouraged, so long as they fit within the overall set of themes associated with buildings in the Civic Center. **P2.** New public buildings in the Civic Center shall enhance and be oriented towards the pedestrian environment. **P3.** Public art and other design features such as fountains and monuments should be used to enliven the public realm in the Civic Center.
CC-5.2	**P1.** The City shall design new public buildings to be architecturally distinctive and constructed with high-quality materials. Where the City is not the direct developer of the new building, the City shall work with the property owner to encourage these qualities. **P2.** Where possible, the City shall use new public buildings to provide focal points in neighborhoods that do not have them.
CC-6.1	**P1.** New development should not obstruct, detract from or negatively affect views of the San Gabriel Mountains to the north and the Chino Hills to the south. These views are an integral part of the City's geographic space and allow residents to develop a sense of place unique to Chino. **P2.** New development should preserve views of the surrounding environment through building design and orientation. **P3.** Work with Caltrans and the City of Ontario to enhance the Euclid Avenue median south of Riverside Drive.
CC-7.1	**P1.** The City shall provide opportunities for public participation in the selection or construction of public art. **P2.** The City shall prioritize the selection of public art that celebrates Chino's heritage, ethnicity, and civic pride. **P3.** The City shall work with artists to ensure that new public art installations foster dialogue between Chino residents. **P4.** The City shall use the public art program to reinforce the strength of the local artist community. **P5.** Public art that strengthens the visual identity of Chino and its neighborhoods shall be encouraged.
LAND USE ELEMENT	
LU-1.1	**P1.** Chino residential neighborhoods should contain a mix of housing types including single-family homes on a range of lot sizes; townhomes; duplexes, triplexes and four-plexes; and apartments. **P2.** Wherever feasible, affordable housing shall be integrated into both new and established neighborhoods. **P3.** The City shall allow and encourage non-traditional housing types that can provide affordable housing, such as accessory dwelling units. **P4.** The City shall encourage the development of senior housing and assisted living facilities, especially near transit, recreational facilities, medical centers and hospitals, neighborhoods well served by pedestrian facilities, and access to healthy food.
LU-1.2	**P1.** Neighborhoods should be designed such that all residences are within a quarter-mile walk of transit stops and recreational areas, and within a half-mile walk of daily retail needs. **P2.** The City shall encourage the development of complementary land uses not already present in residential neighborhoods, such as grocery stores, basic commercial services, parks and recreational fields, and schools.
LU-1.3	**P1.** The City shall encourage a combination of daily and specialty retail, office, entertainment, and other commercial uses that serve daily and occasional needs in commercial areas of Chino. **P2.** The City shall prohibit strip commercial development, whether retail, office, or service commercial, to avoid the traffic congestion, inaccessibility, and poor aesthetic character associated with such development. Strip commercial development is commercial development, usually one lot deep, that fronts on an arterial street, and is designed primarily for automobile access and convenience of parking.

Table 4.3-2 Chino General Plan Policies

Objective No.	*Policies*
LU-2.1	**P1.** Industrial development shall be subject to design principles and performance standards consistent with General Plan policies. **P2.** The City shall prevent encroachment of industrial lands by incompatible uses. **P3.** The City shall reserve sufficient space for industry, recognizing industry's greater land requirements due to new methods of operation. **P4.** The City shall evaluate proposed industrial development in terms of its impact on local employment. **P5.** New industrial development shall be designed to be adaptable to both warehousing and manufacturing uses through inclusion of the following: ■ Upgraded interior lighting; ■ Foil-backed insulation on ceilings; ■ Skylights to provide natural light; ■ Painted interiors; ■ Upgraded fire suppression systems; ■ Floor slabs of sufficient thickness to accommodate general manufacturing uses; ■ Parking sufficient to accommodate both warehousing and manufacturing uses; and ■ Upgraded electrical service sufficient to operate a wide range of manufacturing equipment.
LU-3.1	**P1.** Property owners who wish to develop using the land use designations shown in the Focused Growth Plan shall follow the process as described in Section E of this Element. Any other proposed land use change shall be subject to the standard General Plan Amendment process. **P2.** As described in Section E of this Element, City staff shall support and expedite General Plan Amendments for projects that are proposed by owners and consistent with the Focused Growth Plan designation on the associated parcel or parcels. **P3.** The City shall prioritize the expenditure of Redevelopment Agency funds on projects within the Redevelopment Area that are consistent with the Focused Growth Plan. **P4.** The City shall waive General Plan Amendment application fees for those projects that are consistent with the Focused Growth Plan. **P5.** The City will consider preparing a Specific Plan for projects that are consistent with the Focused Growth Plan. Priority will be given to projects that cover a large area, such as a whole block or majority of a block where properties are either owned by one owner or the owners have agreed to work together.
LU-3.2	**P1.** The City shall review development applications for properties at the intersection of Walnut and Central to ensure they include a combination of housing, retail and office uses, with a focus on development of multi-family housing. **P2.** New residential uses, whether single- or mixed-use, shall use state-of-the-art design, technologies and siting techniques to mitigate the effects of living near a high-traffic road on residents of the new housing units.
LU-3.3	**P1.** The City shall review proposed new development on Riverside Drive to ensure that it is designed to provide a more pedestrian-oriented environment, with two to three story mixed use and residential buildings, improved street furnishing, and other pedestrian amenities. **P2.** New development on Riverside Drive that is directly adjacent to single-family homes should be designed for consistency with those homes, by providing a buffer in the rear area of the parcels between new buildings and existing homes. **P3.** The City shall discourage the retail conversion of existing residential properties on the north-south numbered streets south of Riverside Drive to the first alley. If they convert to retail, it should be as a block and not individually. **P4.** The City shall require new residential uses, whether single- or mixed-use to use state-of-the-art design, technologies, and siting techniques to mitigate the effects of living near a high-traffic road on residents of the new housing units.

Table 4.3-2 Chino General Plan Policies

Objective No.	*Policies*
LU-3.4	**P1.** The City shall ensure that live-work lofts, multi-family units, and mixed-use development in this area of the City shall provide entrances oriented and scaled to the pedestrian. **P2.** Live-work lofts shall function as a transitional use between industrial uses to the south of the Study Area and residential uses to the north. **P3.** The City shall ensure that new residential uses, whether single-or mixed-use, use state-of-the-art design, technologies, and siting techniques to mitigate the effects of high volume streets or industrial uses in residential areas.
LU-3.5	**P1.** The City shall permit existing uses within this area to continue, but shall require that they bring their facilities up to the standards described below for Industrial and Office uses when developing, redeveloping, or undertaking a major remodel. **P2.** For this area, the City shall prioritize light industrial uses that will be compatible with neighboring residential uses, will not be completely reliant on rail service or large-scale shipping, and will be flexible enough to respond to changes in the local and global market. **P3.** The City shall support and encourage the development and retention of large industries in Chino. **P4.** The City shall support small industrial businesses by facilitating the creation of industrial condos and business parks.
LU-4.1	**P1.** The City shall continue to enforce policies requiring irrevocable offers of annexation when sanitary sewer service is requested in the SOI.
LU-5.1	**P1.** The City shall facilitate infill development through active leadership and the strategic provision of infrastructure, services, and supporting land uses. **P2.** The City shall encourage mixed-use, infill development on brownfields, near public transit, and on underutilized properties within the urban core. **P3.** The City shall discourage strip commercial development. **P4.** The City shall strive to balance commercial and residential development within the City to reduce the number of residents commuting long distances to work. **P5.** The City shall support development at the maximum density allowed by this General Plan along Central Avenue, Riverside Drive, and Euclid Avenue, as a means to increase the number of residents with access to transit lines along those roadways. **P6.** Affordable housing shall be located in transit-oriented developments whenever feasible.
LU-5.2	**P1.** The City shall give preference to infrastructure improvements that support or enhance desired land uses and projects.
LU-6.1	**P1.** The City shall maintain and implement the College Park Specific Plan, The Preserve Specific Plan, the Chino Airport Master Plan, and the Chino Airport Comprehensive Land Use Plan. **P2.** If some or all of the land designated Urban Reserve on the CIM property becomes available to Chino for development, the City shall develop a Master Plan or similar document to create a cohesive plan for development of this area.
LU-7.1	**P1.** The City shall direct new growth into the existing City, The Preserve or urban reserve areas. **P2.** Residential, commercial, industrial, and office uses shall be developed simultaneously, to the greatest extent possible, to provide a balance of housing, jobs, and retail to provide a sufficient economic base for City operations. **P3.** Urban development shall occur only where the City can determine that urban public facilities and services exist or can be reasonably made available.

Table 4.3-2 Chino General Plan Policies

Objective No.	*Policies*
LU-8.1	**P1.** The City shall ensure that all residences are within walking distance of sources of fresh food, including grocery stores, farmers' markets, and community gardens, and shall prioritize underserved areas for new sources of healthy food. **P2.** The City shall support the development of new retail venues that sell local, fresh produce, including farmers' markets, community-supported agriculture programs, and grocery stores. **P3.** The City shall consider the provision of programs, incentives, and/or grants to encourage small grocery or convenience stores to sell fresh foods in underserved areas. These programs could include grants or loans to purchase updated equipment (refrigeration), publicity or directories of healthy food outlets, or connecting stores to wholesale sources of healthy, local, or organic food. **P4.** The City shall allow the development of community gardens in residential and other land use designations. **P5.** The City shall encourage farmers' markets to accept food stamps and other public food benefits. **P6.** The City shall take steps toward meeting its own food needs (e.g. cafeterias, public functions) and those of the schools through the purchase of local and organic food. **P7.** The City shall work with the Chino Valley Unified School District to establish strong nutritional standards for school lunches and to phase out vending machines and sugar sweetened beverages, particularly at elementary schools. **P8.** The City shall consider programs and incentives to encourage restaurants to label nutritional content of foods, to include healthy foods on their menus, and to promote healthy, local, and organic foods. These programs may include certification and/or publicity of healthy restaurants or development of local supplier networks. **P9.** The City shall require new public facilities, schools, parks and recreational facilities, and commercial, office, and medical buildings to provide drinking fountains.
LU-8.2	**P1.** The City shall restrict approvals of new liquor and convenience stores in areas with an existing high concentration of such stores.
ECONOMIC DEVELOPMENT ELEMENT	
ED-1.1	**P1.** The City shall encourage an efficient and consistent regulatory environment with a predictable development process to encourage growth of existing businesses and attract new businesses to locate within Chino. **P2.** The City shall encourage the retention and expansion of existing businesses and provide support for locally-owned businesses. **P3.** The City shall maintain services at a capacity to accommodate infill development as allowed by specified land use designations. **P4.** The City shall encourage the establishment of child care facilities, especially near employment centers, community centers, transit centers, and schools. **P5.** The City shall ensure that new development will have a fiscally neutral effect on the General fund or will be balanced by other development that generates revenues.
ED-1.2	**P1.** The City shall continue to support manufacturing, distribution and logistics firms who locate in Chino through permit streamlining and expedited review of business applications. **P2.** The City shall protect industrial land from encroachment from other incompatible land uses including retail, housing, and, depending on location, office uses.
ED-1.3	**P1.** The City shall encourage office development to provide space for growing information, business, and professional services sectors, especially in areas where existing retail centers may be in decline. **P2.** The City shall encourage service-based businesses to locate in newly constructed or vacant office space.

Table 4.3-2 Chino General Plan Policies

Objective No.	*Policies*
ED-1.4	**P1.** The City shall support the development and redevelopment of retail centers to ensure that Chino's retail sector remains competitive with newer retail centers in the region. **P2.** The City shall encourage service-based businesses in retail areas on Central Avenue, Riverside Drive, and Euclid Avenue to locate on second floors or other locations away from main shopping areas to ensure a continuous ground floor retail front. **P3.** The City shall encourage the development of entertainment space that provides a safe and healthy atmosphere for residents of all ages to congregate and socialize. **P4.** In areas identified as underserved with healthy food sources, the City shall consider financial incentives to attract grocery store-anchored retail centers.
ED-2.1	**P1.** The City shall provide a diversity of housing that is affordable at the wages offered by Chino employers in order to fill jobs in Chino's diverse economy. **P2.** The City shall continue to support industries that provide a range of jobs at living wages through land use policies and other City activities.
TRANSPORTATION ELEMENT	
TRA-1.1	**P1.** The City should consider deviating from the standard street cross-sections when improving arterials in existing neighborhoods with extremely limited expansion and widening opportunities. Bicycle lanes should only be eliminated if they are replaced with parallel facilities on neighboring streets with equivalent or better connectivity and safety for bicyclists. **P2.** When roadway widening will take place after a development project is completed, the City shall require the developer to dedicate the ultimate right-of-way for future widening along the front of the subject property and deposit an in-lieu fee of their fair share of the cost of the future improvements into an account to be held by the City for said improvements. **P3.** Through the development review process, the City shall ensure that new developments consider location, roadway width, existing driveways, and surrounding development in order to minimize the impacts of new development on surrounding neighborhoods. **P4.** Through the development review process, the City shall limit the number of access points along all major arterials, continue to control access points through construction of median turn lanes and island curb cuts, and reduce and consolidate the current number of access points along major arterials. **P5.** The City shall require all new development to mitigate traffic impacts identified by a City-mandated traffic study or as required by the Congestion Management Plan (CMP). **P6.** Require a City traffic study to be prepared for projects that are inconsistent with the General Plan Land Use Element, and/or generate more than 50 two-way peak hour trips to one intersection. This includes projects such as those with: 100 or more residential units, 25,000 or more square feet of office space, 1,000 or more square feet of retail, or 100,000 or more square feet of industrial. **P7.** The City shall undertake road-widening projects only when they are feasible on a significant length of roadway, while still requiring necessary dedications on an on-going basis. **P8.** The City shall ensure that construction of all transportation facilities is fully funded, or in the case of facilities that are funded through Development Impact Fees, the fair share is paid, by the development creating the need. **P9.** The City shall assess fees to construct and install traffic signals, bridges, streets, or other off-site auto network improvements to serve proposed development. Fees shall be set based on the proportion of the need or benefit occurring to the project. When determining appropriate transportation improvements, the City shall consider bicycle, pedestrian, and transit improvements. **P10.** The City shall evaluate the adequacy of handicapped parking provision, and compliance with Americans with Disabilities Act (ADA) requirements, in review of all proposed new development and re-development projects in Chino. **P11.** The City shall prioritize the improvement and widening of sawtooth roads and intersections that currently exist.
TRA-1.2	**P1.** The City shall achieve an average LOS D or better at intersections and along roadway segments. This average shall be demonstrated to the satisfaction of the Director of Public Works, who shall also review level of service at intersections and roadway segments. **P2.** Implement the San Bernardino Associated Governments (SANBAG) Congestion Management Program Guidelines for Traffic Impact Analysis reports.

Table 4.3-2 Chino General Plan Policies

Objective No.	*Policies*
TRA-1.3	**P1.** Make reasonable efforts to stabilize and maintain traffic volumes below 1,800 vehicles per day on local residential streets. The City shall provide adequate capacity to the extent possible on major and collector streets to prevent cut-through traffic onto neighborhood streets. **P2.** The City shall utilize traffic calming strategies for residential areas to minimize through traffic and high travel speeds, while also improving the bike and pedestrian travel conditions and safety. **P3.** The City shall ensure that traffic calming measures will not compromise overall connectivity of the auto network or impede access and connectivity for pedestrians, cyclists, and persons with mobility limitations. **P4.** The City shall design each arterial with sufficient capacity to accommodate anticipated traffic based on intensity of existing and planned land use, without providing excess capacity to encourage additional non-local cut-through traffic on City streets.
TRA-2.1	**P1.** The City shall coordinate with Caltrans to balance level of service on freeway ramps with coordination of arterial street traffic signal timing to prevent queuing on Chino streets. **P2.** The City shall take an active participatory role in coordinated transportation planning with the County of San Bernardino, Caltrans, SANBAG, Southern California Association of Governments (SCAG), and surrounding jurisdictions. **P3.** The City shall coordinate with State agencies regarding landscaping plans for right-of-way and on-/off-ramp landscaping. **P4.** The City shall coordinate street development standards with adjacent jurisdictions.
TRA-3.1	**P1.** The City shall limit land uses with a significant reliance on trucks to parcels fronting designated truck routes, in industrial areas, or within a ¼ mile driving distance of freeways. **P2.** The City shall discourage new parks, schools, day care centers, and major pedestrian uses from being sited on designated truck routes. **P3.** Signs shall be used to delineate both City and State truck routes. **P4.** The City shall continue to work with the State and neighboring cities to implement the truck routes shown in Figure TRA-5. **P5.** The City shall encourage existing businesses to ensure that they require adherence to City truck routes in the conduct of their business.
TRA-3.2	**P1.** The City shall require land dedication for grade separations on key arterials and other roadways as a condition of approval for companies that utilize the rail facilities. **P2.** The City shall discourage new rail users and expansion of existing rail users on the Chino Line in the downtown area. **P3.** The City shall continue to work with railway operators to implement the rail lines shown in Figure TRA-4A.
TRA-4.1	**P1.** The City shall continue to support ITS applications currently operating in San Bernardino County and the City, and review new technology as it becomes available. **P2.** The City shall support the expansion of new ITS applications that increase the efficiency of the vehicle network, increase coordination and reduce the need for additional capacity. **P3.** The City shall collaborate with transit providers, neighboring jurisdictions, and regional agencies to prioritize and maximize transit mobility along transit priority streets in Chino. Improvements could include installing transit signal priority, queue jump lanes at congested intersections, and/or exclusive bus lanes.
TRA-4.2	**P1.** The City shall collaborate with transit providers, neighboring jurisdictions, and regional agencies to explore the feasibility of using ITS applications to expand participation in carpooling and ridesharing.

Table 4.3-2 Chino General Plan Policies

Objective No.	*Policies*
TRA-5.1	**P1.** The City shall work with the Chino Valley Unified School District, neighborhood associations, and Parent Teacher Associations (PTAs) to facilitate the creation of "walking school buses," "bike trains" and carpools for commuting to and from Chino schools. "Walking school buses" and "bike trains" are led by at least two responsible adults, one in front and one in back, to assist younger children in safely walking and biking to school. **P2.** The City shall work with the Chino Valley Unified School District, the Police Department, neighborhood associations, and PTAs to initiate pedestrian and bicycle safety training and workshops in Chino schools. **P3.** The City shall work with the Chino Valley Unified School District to identify schools and nearby recreational facilities that need additional bicycle parking and prioritize development of those facilities.
TRA-5.2	**P1.** The City of Chino shall review existing conditions and prioritize pedestrian improvements, crosswalks, bicycle facilities, and traffic calming projects in Chino public school zones and along recommended routes to schools. **P2.** The City and Police Department shall prioritize traffic enforcement activities around schools to improve the safety of pedestrian and bicycle travel to schools.
TRA-6.1	**P1.** The City shall require streets in proposed new development and redevelopment projects to be designed with a grid, modified grid, or small block pattern within the City's arterial street network to facilitate traffic flow and provide multiple connections to arterials. These street patterns shall minimize dead-ends and cul-de-sacs for motorized vehicles to the extent possible. Where not possible streets will provide pedestrian and bicycle connections even if no through auto access is provided. **P2.** New neighborhoods should be physically connected to one another via a series of roadways and pedestrian paths, and all residents should be within a short walk or drive of retail and other services. **P3.** The City shall develop continuous pedestrian and bicycle connections between neighborhoods and to destinations such as schools, shopping, and parks.
TRA-6.2	**P1.** The City shall continue to review pedestrian, bicycle and traffic safety on Chino's residential streets as well as at critical intersections. **P2.** Based on engineering analysis and judgment, the City shall enhance the safety of pedestrians, bicyclists and traffic operations in Chino through creation of dedicated left turn lanes, and review of existing conditions, existing pavement markings and signage to enhance traffic control on Chino streets, as well as the modification/elimination of protected permissive phasing on all traffic signals.
TRA-6.3	**P1.** The City shall work to create barrier-free access throughout the pedestrian network, particularly at hospitals, medical centers and senior centers. This shall include approaches such as increased pedestrian cross times for the slower movement of elderly and disabled residents (as allowed by State standards), construction of curb ramps, installation of countdown pedestrian heads, and repair of cracked or slanted sidewalks. **P2.** During street work, sidewalks, crosswalks, and intersections should be retrofitted to accommodate the disabled wherever possible.
TRA-7.1	**P1.** The City shall encourage employers of 100 or more full-time employees, as well as schools and other organizations, to develop TDM plans to increase carpooling, and encourage the use of public transportation, bicycling, and walking. **P2.** The City shall encourage employers of 100 or more full-time employees to allow telecommuting (work at home) and flexible and alternate work schedules to allow commuters to increase their use of alternative forms of transportation, and to minimize congestion at peak hours. **P3.** The City shall encourage employers with 100 or more fulltime employees and major retailers to provide shuttle service from local and transit intermodal facilities to the place of employment or shopping center. **P4.** The City shall require employers to offer more desirable onsite parking space locations for carpools and vanpools. **P5.** The City shall encourage employers to pay for transit passes for their employees who agree not to drive to work, to implement flexible work schedules, and to provide bike racks/storage and lockers/showers for bicycle and walking commuters. **P6.** The City shall encourage new industrial and commercial developments, the Chamber of Commerce, the school district, and large employers to distribute promotional material concerning transit ridership opportunities and services. **P7.** The City shall require, as a condition of approval for new commercial and industrial developments, the preparation and implementation of a Truck Travel Demand Management (TTDM) program.

Table 4.3-2 Chino General Plan Policies

Objective No.	*Policies*
TRA-8.1	**P1.** The City shall enforce Chino's public parking regulations. **P2.** The City shall supply an adequate amount of handicapped parking in proximity to civic, recreational, cultural, and commercial centers in Chino, per ADA requirements. **P3.** The City shall post information in public parking areas indicating location, hours, and other parking regulations. **P4.** The City shall encourage parking efficiencies wherever feasible, including shared parking, off-site parking, tandem, valet, mechanical stackers, and other methods to make the most efficient use of the existing parking supply. **P5.** The City shall provide directional signage to the locations of public parking areas, especially in the downtown area.
TRA-9.1	**P1.** The City shall encourage and promote the development of passenger rail service to the Chino Transit Center. This rail service should connect Chino residents and workers to other Metrolink stations. **P2.** The City shall encourage the routing of buses to the Chino Airport, Chaffey College, and other major destinations to facilitate transit access to the airport for workers and passengers. **P3.** To the extent feasible, transit stops shall have dedicated curbside loading space, passenger shelters and amenities such as maps and schedules (or real-time arrival information). **P4.** New developments shall provide for transit and bicycle facilities such as bus stops, bus bays, transit shelters, benches, onsite drop off locations, bicycle racks, lockers and showers. **P5.** The City shall recommend to transit providers increases in transit service to areas targeted for redevelopment or concentrations of transit-oriented development.
TRA-9.2	**P1.** When appropriate and whenever possible, the City shall support increased frequency and operational hours of public transit service.
TRA-9.3	**P1.** The City shall work with local transit providers to review safety enhancements around bus stops in Chino and routes used by public transit patrons to access transit stops. **P2.** The City shall work with transit providers to consider safety in the location of transit stops, including locating them in places where they will be visible to passers-by, homes, and businesses.
TRA-10.1	**P1.** Libraries, schools, community centers, and other important community facilities in Chino shall have bicycle parking, including racks and lockers as appropriate. **P2.** The City shall require new development to provide off-street bicycle parking per zoning standards, and shall review those standards periodically to ensure that adequate bicycle parking is being provided. **P3.** The City shall encourage employers of 100 or more full-time equivalent employees to provide showers and lockers for bicycle commuters. **P4.** Incorporate bicycle paths/trails/facilities outside the street right-of-way in all new development, consistent with the Bicycle Master Plan.
TRA-10.2	**P1.** The City shall enhance and improve bicycle connections between neighborhoods, and between neighborhoods and significant destinations such as parks, schools, transit stops and transit centers, shopping centers, and employment centers. **P2.** Where existing street width or traffic volumes do not support creation or maintenance of striped bicycle lanes, the City shall indicate to both drivers and bicyclists that bicycle use is permitted and should be expected through "sharrows"1 pavement markings, "share the road" signage, or other mechanisms. **P3.** The City shall evaluate proposed new development and redevelopment projects to ensure that they include consideration of connections to the Chino bicycle circulation system and provide bicycle parking and other facilities for bicyclists, as appropriate to the development type.

Table 4.3-2 Chino General Plan Policies

Objective No.	*Policies*
TRA-11.1	**P1.** Where appropriate, the City shall develop and implement traffic calming measures such as narrower streets, pedestrian "bulb-outs" (extended curbs at corners), four-way stops, and traffic circles on Chino's residential streets. **P2.** The City shall require pedestrian-friendly traffic signal accessories, such as "count-down" pedestrian signals and similar technologies at all significant pedestrian crossings. **P3.** Proposed new development and redevelopment projects shall include connections to the Chino pedestrian circulation system and adhere to City design standards for sidewalks, trail systems, crosswalks, and associated pedestrian infrastructure, following ADA requirements. **P4.** The City shall prioritize the development of safe, well maintained walking routes along creeks.
TRA-12.1	**P1.** The City shall continue to support the development and maintenance of neighborhood equestrian trails, which are intended to serve local recreational needs. **P2.** The City shall develop connections between existing public trails and the public rights-of-way to form a trail network that can be used to travel through the southern part of the City.
TRA-13.1	**P1.** The City shall work with San Bernardino County and Los Angeles World Airports to support the needs of the Chino Airport and to ensure that it provides quality air transportation to Chino and surrounding communities. **P2.** The City shall work with transit providers to develop frequent and convenient transit access to the Chino Airport and LA/Ontario Airport.
TRA-14.1	**P1.** The City shall work with transit agencies to prioritize funding for expanded transit service and transit service with lower emissions.
TRA-14.2	**P1.** The City shall encourage new construction to include vehicle access to properly wired outdoor receptacles to accommodate zero emission vehicles and/or plug in hybrids. **P2.** The City shall encourage transportation fleet standards to achieve the lowest emissions possible, using a mix of alternate fuels and low- and zero-emission vehicles.
OPEN SPACE AND CONSERVATION ELEMENT	
OSC-1.1	**P1.** The City shall ensure that new development meets all federal, State, and regional regulations for habitat and species protection. **P2.** The City shall protect and enhance riparian habitats along Chino and Cucamonga/Mill Creeks, and the Cypress and Magnolia Channels, as well as their relationship to adjacent water bodies, such as the Santa Ana River. **P3.** The City shall encourage private agricultural landowners to maintain or establish areas that provide natural habitat through wildlife-compatible farm management practices. **P4.** The City shall require new developments to incorporate native vegetation into landscape plans and discourage the use of non-native species. Species known to be invasive according to the California Invasive Plant Inventory may not be used. **P5.** The City shall promote conservation and preservation easements that protect habitat areas, habitat corridors, and sensitive biological resources. **P6.** The City shall support the efforts of a land conservancy, selected pursuant to the requirements of the Resource Management Plan, in the conservation of open space via the establishment of ecological reserves. **P7.** The Resource Management Plan for The Preserve shall continue to be implemented and expanded as necessary to achieve its stated purpose of fulfilling the mitigation measures included in The Preserve Specific Plan EIR.
OSC-1.2	**P1.** The City shall require detailed biological assessments, including mitigation plans if necessary, prior to approval of all new development projects in areas with a potential to accommodate special status species and/or sensitive habitat. **P2.** The City shall continue to support and uphold the policies in the Resource Management Plan for The Preserve that describe areas to be left as open space, serving as buffers to other adjacent areas described for conservation. **P3.** In places where sensitive species have been identified, the City shall require cluster development and conservation subdivision design to minimize the impacts of urban development.

Table 4.3-2 Chino General Plan Policies

Objective No.	*Policies*
OSC-2.1	**P1.** The City shall encourage the retention of existing small-scale agricultural operations and promote collaborations with farmers markets and school programs. **P2.** The City shall work with the County to support agricultural uses in the City's SOI. These efforts could include working with existing farms to support local marketing efforts. **P3.** The City shall work with the Chino Valley Historical Society to acquire and store photographs and other memorabilia relating to historical agricultural operations in Chino. **P4.** The City shall recognize the potential role small farms play in education and agricultural tourism and provide for the inclusion of such activities through land use regulations, while discouraging the use of small farms as non-agricultural home sites.
OSC-2.2	**P1.** The City shall continue to work with landowners in maintaining existing Williamson Act contracts. **P2.** The City shall continue to work with non-profit organizations, such as land trusts, to preserve agricultural land in Chino. **P3.** The City shall support private conservation organizations that utilize voluntary conservation easements as a tool for agricultural conservation, accomplishing preservation, continued agricultural use, agricultural supportive uses, tax breaks, and similar goals.
OSC-2.3	**P1.** The City shall require new development adjacent to properties designated for agricultural uses to have buffer zones, such as roads, setbacks and other physical boundaries, between agricultural uses and urban development. Buffers may be located on the land where the use is being changed, on the property containing the agricultural use, or a combination of the two. **P2.** Agricultural uses shall be the primary uses within the Agriculture land use designation. Residential uses, such as a farmer's home, shall be permitted only as accessory uses.
OSC-2.4	**P1.** The City shall encourage, maintain, and enhance the Chino Farmer's Market and explore ways to expand the market to other locations.
OSC-3.1	**P1.** The City shall restrict permitted uses on lands containing and adjacent to important sand and gravel resources to those compatible with mineral extraction, except in cases where such uses offer public benefits that outweigh those of resource extraction. **P2.** The City shall require mined property to be left in a condition suitable for reuse in conformance with the General Plan land use designations and the California Surface Mining and Reclamation Act (SMARA). **P3.** The City shall encourage the reuse and recycling of existing aggregate construction material for new residential, commercial, and industrial developments.

Table 4.3-2 Chino General Plan Policies

Objective No.	*Policies*
OSC-4.1	**P1.** The City shall continue to comply with California Building Code (Title 24) provisions, including Pat 11 of the Code, referred to as CALGreen or the California Green Building Standards Code and consider exceeding the standards where appropriate and as deemed necessary to meet the City's goals and/or legal obligations. **P2.** New residential development shall meet the guidelines of the California Energy Star New Homes Program and be designed and constructed to meet the State standards for energy efficiency (Title 24). New non-residential development shall also meet the State standards for energy efficiency (Title 24). The City shall encourage new development to exceed State standards for energy efficiency and consider requiring this while completing the Climate Action Plan. **P3.** The City shall encourage developers to offer buyers of new homes the option of having solar panels incorporated. **P4.** The City shall encourage solar-oriented design, green roofs, and passive solar heating and cooling in all new residential, commercial and civic development. **P5.** The City shall require that deciduous trees be planted on the south- and west-facing sides of new buildings to reduce energy usage. **P6.** The City shall encourage the use of above-ground and natural stormwater facilities in new development and redevelopment. Such facilities may include grassy or vegetated swales, as well as larger-scale facilities such as constructed wetlands. Where feasible, these facilities should be made open to the public or to building users as sources of green or open space. **P7.** All new public buildings constructed by the City shall adhere to green building standards and meet the U.S. Green Building Council's Leadership in Energy and Environmental Design (LEED) certifications for green buildings, or an equivalent standard. **P8.** The City shall require that all new residences sold with appliances install all Energy Star-Rated appliances. All new residences shall use compact florescent lights in all standard light installations. Installation of these measures shall be confirmed. **P9.** The City shall encourage all new construction to use low- or no-toxicity building materials. **P10.** New private and public development shall be encouraged to maximize opportunities for use of passive or natural heating and cooling. **P11.** New private and public development shall be encouraged to use locally-sourced products that are salvaged, Forest Stewardship Council Certified, or made from recycled content materials. **P12.** The City shall protect solar access by limiting the blockage of buildings from sunlight by other buildings and structures. **P13.** The City shall encourage the use of cool site techniques to reduce heat islands on paved site areas, such as covered parking, light-colored paving, and tree shading.
OSC-4.2	**P1.** All new non-public safety passenger vehicles purchased and operated by the City of Chino shall be alternatively-fueled or hybrid vehicles. **P2.** The City shall collaborate with local energy suppliers and distributors to establish energy conservation programs, Energy Star appliance change-out programs, rebates, vouchers, and other incentives to install energy-efficient technology and products. **P3.** The City shall work with entities such as community service agencies, utility providers, and non-profits to publicize energy savings programs targeted toward low-income households to ensure that qualified Chino residents are aware and can take advantage of the programs and incentives available for energy-efficiency improvements.
OSC-5.1	**P1.** The City shall promote strategic land use patterns, a diverse and efficient public transportation system, and other measures that reduce the number and length of motor vehicle trips. **P2.** The City shall seek to reduce greenhouse gas emissions associated with City operations. **P3.** The City shall work with homeowners and business owners to support their efforts to reduce greenhouse gas emissions.
OSC-6.1	**P1.** The City shall mitigate climate change by decreasing heat gain from pavement and other hard surfaces associated with infrastructure. **P2.** The City shall actively inspect non-residential buildings and enforce State requirements for cool roofs on non-residential re-roofing projects.

Table 4.3-2 Chino General Plan Policies

Objective No.	*Policies*
OSC-7.1	**P1.** The City shall ensure that identified cultural and historic landmarks and buildings are preserved, unless the City finds that such preservation is economically infeasible. **P2.** The City shall require the architectural details and design elements of historic structures to be preserved during renovations and remodels. **P3.** In the event that unknown archaeological or paleontological resources are discovered during construction, the Planning Division shall be notified immediately. All construction shall stop and an archaeologist meeting the Secretary of the Interior's Professional Qualifications Standards in prehistoric or historical archaeology should be retained to evaluate the discovered resources and recommend appropriate action. **P4.** If Native American artifacts are discovered on a site, the City shall consult representatives of the Native American community to ensure the respectful treatment of Native American sacred places. **P5.** Where applicable, any human remains discovered during implementation of public and private projects within the Planning Area should be treated with respect and dignity and should fully comply with the California Native American Graves Protection and Repatriation Act and other appropriate laws. **P6.** Where applicable, the City shall support access to and ceremonial use by Native American religious practitioners of Native American sacred sites located in Chino. **P7.** The City shall continue to consult with tribes as required by Senate Bill 18. In so doing, the City shall use appropriate procedures to accommodate tribal concerns when a tribe has a religious prohibition against revealing precise information about the location or practice at a particular sacred site.
PARKS AND RECREATION ELEMENT	
PR-1.1	**P1.** The City shall achieve and maintain a standard of 3 acres of parks per 1,000 Chino residents. The following categories of parks shall be included in the park acreage totals: formative, neighborhood, and community parks, mini parks that are over one-half acre in size and that contain sufficient amenities, and regional parks under the City's jurisdiction. **P2.** The City shall allow new infill development projects to provide mini parks in infill areas to help meet the park standard, as long as they are over ½-acre and include sufficient amenities. **P3.** The City may permit homeowners' associations to manage mini parks, formative parks and neighborhood parks, so long as parks are publicly accessible and maintained to a level equivalent to City cleanliness, landscaping, and safety standards. **P4.** In order to encourage active, healthy lifestyles, the City will work toward ensuring that all residential areas are within ½- mile walking distance of a public park. **P5.** The City shall prioritize the development of new parks in underserved areas and low-income neighborhoods. **P6.** The City shall ensure that the development of parks and recreational facilities and services keeps pace with development and growth in Chino. **P7.** The City shall create pedestrian, bicycle and/or equestrian trail links between parks where possible, in order to increase the accessibility of parks to area residents.
PR-1.2	**P1.** The City shall require new development to dedicate land or pay in-lieu fees to maintain park standards. **P2.** The City shall support efforts to sustain a long-term funding source for parks acquisition, development, and maintenance in Chino.
PR-2.1	**P1.** The City shall support and expand public activities and resources that enhance the City's "small-town feel" such as cultural events, street fairs, parades, the farmers market, outdoor concerts, after-school programs, and community centers. **P2.** The City shall provide recreational programs and activities that are accessible and appealing to residents of all age groups, abilities, and income levels. **P3.** The City shall evaluate recreational programming, parks and facilities on an on-going basis to ensure that the City's programs and facilities meet the needs of residents.

Table 4.3-2 Chino General Plan Policies

Objective No.	*Policies*
PR-3.1	**P1.** The City shall encourage public and private providers of recreational activities to collaborate with Healthy Chino, the County of San Bernardino Public Health Department, and other public health agencies to design healthy recreation programs that incorporate physical activity and healthy eating. **P2.** The City shall develop park designs to ensure they provide a combination of both active and passive recreational opportunities for all age levels, including walking, jogging, organized team sports, and informal group sports.
	SAFETY ELEMENT
SAF-1.1	**P1.** The City shall enforce the building codes adopted by the State of California in all new construction and renovations. **P2.** The City shall rely on the most current and comprehensive geological hazard mapping available to assist in the evaluation of potential seismic hazards to proposed new development. **P3.** Site-specific soils and/or geologic reports shall be required for development in areas where potentially serious geologic risks exist. These reports shall address the degree of hazard, design parameters for the project based on the hazard, and the appropriate mitigation measures. **P4.** The City shall work with utility providers to ensure that utility lines are designed to withstand seismic forces, are accessible for rapid repair, and are provided with safety features such as automatic shutoff valves, switches and expansion joints. **P5.** The City shall consider utilizing redevelopment funds to help reconstruct or replace inadequate structures within redevelopment areas.
SAF-2.1	**P1.** The City shall not permit new development within the 100-year flood zone unless it can be shown that the development will not: 1. Create danger to life and property due to increased flood heights or velocities caused by excavation, fill, roads and intended use. 2. Create difficult emergency vehicle access in times of flood. 3. Create a safety hazard due to the unexpected heights velocity, duration, rate of rise and sediment transport of the flood waters at the site. 4. Create excessive costs in providing governmental services during and after flood conditions, including maintenance and repair of public facilities. 5. Interfere with the existing waterflow capacity of the floodway. 6. Substantially increase erosion and/or sedimentation. 7. Contribute to the deterioration of a watercourse or the quality of water in any body of water. 8. Require storage of material, or any substantial grading or placement of fill. 9. Change the water storage/volume capacity of the flood basin. **P2.** The City shall prevent the construction of flood barriers within the 100-year flood zone which will divert flood water or increase flooding in other areas. **P3.** The City shall refer any new development proposed within the flood plain to the United States Army Corp of Engineers for approval. Such approval will require, at a minimum, volume offsets in order to maintain the existing storage capacity of the basin. **P4.** The City shall not permit the construction of any habitable building with a finished floor height below 567 feet in elevation within or adjacent to the dam inundation area.
SAF-2.2	**P1.** The City shall continue to allow only those uses below the 566-foot flood inundation line that are approved by the Army Corps of Engineers.
SAF-3.1	**P1.** The City shall require all development in areas of potential wildland fire hazards to include the following: ■ Clearance around structures ■ Fire-resistant ground cover ■ Fire-resistant roofing materials **P2.** The City shall incorporate drought-resistant and fire-resistant plants in public works projects in areas subject to wildland fires.

Table 4.3-2 Chino General Plan Policies

Objective No.	*Policies*
SAF-4.1	**P1.** The City shall require adequate separation between areas where hazardous materials are present and sensitive uses such as schools, senior centers, hospitals and medical centers, residences and public facilities. **P2.** When reviewing new development applications, the City shall require the necessary level of environmental investigation to ensure that soils, groundwater and buildings affected by hazardous materials would not affect the environment or health and safety of future property owners or users. **P3.** The City shall promote the safe transport of hazardous materials through Chino through implementation of the following measures: 1. Prohibit the parking of vehicles transporting hazardous materials on City streets. 2. Require that new pipelines and other channels carrying hazardous materials avoid residential areas and other immobile populations to the greatest extent possible. **P4.** The City shall require applicants proposing to generate hazardous waste to submit emergency response plans to the CVIFD and San Bernardino County Fire Department Hazardous Materials Division. **P5.** The City shall work with households, businesses and others who generate hazardous waste to reduce overall hazardous waste in Chino. **P6.** The City shall prohibit the use of Perchloroethylene (PERC) in new dry cleaning facilities. **P7.** The City shall require that dry cleaners in mixed-use developments use clean technology. **P8.** The City shall continue to work with the San Bernardino County Fire Department Hazardous Materials Division to ensure that businesses in Chino follow the hazardous materials regulations and guidelines outlined in the "Business Emergency/Contingency Plan Guidelines and Forms" for San Bernardino County. **P9.** The City shall continue to work with the San Bernardino County Fire Department Hazardous Materials Division to ensure that Chino residents have convenient access to the disposal of household hazardous wastes. **P10.** The City shall continue to work with the CVIFD to monitor and regulate the storage of hazardous materials in conformance with the Uniform Fire Code.
SAF-5.1	**P1.** The City shall require all construction in Chino to be consistent with the required setbacks and height restrictions for the Chino Airport as determined by the Federal Aviation Administration, the Chino Airport Master Plan and the Chino Airport Comprehensive Land Use Plan.
SAF-6.1	**P1.** City departments shall conduct periodic trainings with staff on emergency operations based on the Emergency Operations Plan. **P2.** The City shall work with other agencies and businesses within the City to assist and support their disaster preparedness efforts. **P3.** The City shall regularly review the adequacy of local infrastructure. **P4.** The City shall continue to encourage residents and businesses to verify their contact information by registering for the CodeRED emergency notification system so that they may receive critical emergency information. **P5.** The City shall provide information to residents and businesses on emergency preparedness, such as preparing emergency kits, developing a communications plan, implementing evacuation procedures, and updating emergency plans. **P6.** The City shall regularly review the Local Hazard Mitigation Plan and make any necessary adjustments.

Table 4.3-2 Chino General Plan Policies

Objective No.	*Policies*
	PUBLIC FACILITIES AND SERVICES ELEMENT
PFS-1.1	**P1.** The City shall continue to support the CVIFD to provide adequate fire protection services to the City of Chino. **P2.** The City shall work with the CVIFD to ensure that first response travel time is maintained and enhanced. **P3.** The City shall work with the CVIFD to continue to increase the emergency response facilities and personnel necessary to meet residential and employment growth in the City. **P4.** The City shall continue to support and implement the CVIFD's Master Plan. **P5.** The City shall continue to charge a Fire Facility development impact fee at the time of building permits. **P6.** The City shall require new development to incorporate adequate emergency water flow, fire resistant design and materials, and evacuation routes. **P7.** The City shall require new development to be accessible to emergency vehicles and to not impede the ability of service providers to provide adequate emergency response.
PFS-1.2	**P1.** The City shall ensure that new public and private roadways are adequate in terms of width, radius, and grade to accommodate CVIFD fire-fighting apparatus, while maintaining Chino's neighborhoods and small-town character. **P2.** The City shall identify and mitigate fire hazards during the development review process. **P3.** The City shall encourage the installation of interior emergency sprinkler systems, fire-safe building materials, early warning systems and sufficient water supply systems for fire suppression in new development or renovations. **P4.** The City shall work with the CVIFD to plan fire station locations to maintain or enhance current response levels.
PFS-2.1	**P1.** The City shall continue to maintain adequate police staffing, performance levels, and facilities to serve Chino's existing and future population. **P2.** The City shall continue to participate in the California Disaster and Civil Defense Master Mutual Aid Agreement. **P3.** The City of Chino shall continue to provide mutual aid with the following agencies: ■ California Highway Patrol ■ California Institution for Men ■ California Institution for Women ■ California Youth Authority ■ City of Claremont ■ City of La Verne ■ City of Ontario ■ City of Pomona ■ City of Upland ■ City of Montclair ■ City of Rialto ■ City of Colton ■ City of San Bernardino ■ San Bernardino County Sheriff's Department
PFS-2.2	**P1.** The City shall emphasize the use of physical site planning as an effective means of preventing crime. Open spaces, landscaping, parking lots, parks, play areas, and other public spaces shall be designed with maximum possible visual and aural exposure to community residents. **P2.** The City shall identify and mitigate law enforcement hazards during the development review process. **P3.** The City shall continue to collect a Police Facility development impact fee from new development.

Table 4.3-2 Chino General Plan Policies

Objective No.	*Policies*
PFS-2.3	**P1.** The Police Department shall provide neighborhood security and crime prevention information and training to neighborhood groups and homeowners' associations and work with the community to establish programs that promote mutual assistance and crime prevention techniques among residents. **P2.** The City shall support community policing through such options as walking and biking police patrols that engage community residents. **P3.** The City should rigorously enforce nuisance regulations to ensure that liquor stores and bars operate in a way that upholds community health, safety, and welfare.
PFS-3.1	**P1.** The City shall coordinate with the CVUSD to ensure sufficient educational facilities for the existing and anticipated kindergarten through twelfth grade population, and shall work to ensure that school facilities serve new development and are available concurrent with needs to the extent allowed by State law. **P2.** The City shall help the CVUSD implement the Facilities Master Plan. **P3.** The City shall work with the CVUSD and youth organizations in promoting education opportunities through service projects for children in the community.
PFS-3.2	**P1.** Where possible, school facilities should be co-located with community parks and recreation facilities to encourage the joint use of facilities. **P2.** The City, in cooperation with the CVUSD, shall reserve land for purchase by the districts for the construction of new schools or the collection of school impact fees in accordance with State law. **P3.** The City shall strive to expand joint use programs with the CVUSD to allow the use of school sites for recreational purposes. **P4.** The City shall work with the CVUSD to site school facilities close to the center of the population served by the school. **P5.** The City shall work with the CVUSD to site elementary schools away from major streets to avoid vehicular noise and traffic hazards. **P6.** School sites should be designed with adequate on-site pick-up and drop-off areas and more than one access point to prevent school-related traffic congestion on the fronting and surrounding roadways.
PFS-4.1	**P1.** The City shall support and encourage the construction of a full range of healthcare facilities, including mental health facilities, to meet the needs of all residents and employees in Chino. **P2.** The City shall work with healthcare providers to locate health services in places that are accessible to Chino residents. **P3.** The City shall ensure that quality health care facilities are provided for the elderly, including assisted-living, hospice, and other care-provision facilities. **P4.** The City shall enhance access to mental health programs. **P5.** The City shall provide equitable and culturally-sensitive health programs for low-income communities. **P6.** The City shall work with healthcare providers to ensure residents are able to access health care services, including developing transportation services, such as shuttles, taxi vouchers or modified transit routes. **P7.** The City shall continue to work with local healthcare providers in assisting them with providing low-cost/no-cost medical care to the City's low income population.
PFS-4.2	**P1.** The City shall continue to support the efforts of the Healthy Chino Coalition to provide classes on nutrition and healthy cooking. **P2.** The City shall support the walking programs of the Healthy Chino Coalition for children and adults, including Chino Walks, Neighborhood Steps, and Chino Walks KIDS. **P3.** The City shall disseminate information about healthful eating habits at community facilities. **P4.** The City shall continue to improve access to disease prevention and management programs. **P5.** The City shall support the health services and programs of the CVUSD, including programs that combat childhood obesity through nutrition and physical education.

Table 4.3-2 Chino General Plan Policies

Objective No.	*Policies*
PFS-4.3	**P1.** The City shall continue to participate in community service programs that are geared toward combating tobacco, alcohol, and drug dependency. **P2.** The City shall support the health services programs of the CVUSD, including their drug, alcohol, and tobacco use prevention programs.
PFS-5.1	**P1.** The City shall work with private childcare providers and employers to support and expand existing childcare. **P2.** The City shall work with the CVUSD to maintain and expand after-school programs that provide care to school-age children. **P3.** The City shall encourage childcare centers to locate close to new and existing schools, other community facilities, and major employment areas.
PFS-6.1	**P1.** Public facilities such as City offices, community centers, libraries, and public works satellite maintenance facilities shall be constructed as necessary to effectively serve the expansion of the City. **P2.** The City shall ensure that new development pay its fair share of the costs of public buildings by collecting development impact fees, including the General Facilities Fee.
PFS-6.2	**P1.** The City shall work with the San Bernardino County Library to expand library services and facilities in Chino to keep pace with new development, striving for a ratio of 0.5 square feet of library space per resident. Consideration shall be given to expanding the existing facility and building another branch library to better serve residents located in other areas of the City. **P2.** The City shall ensure that new residential development pays the Library development impact fee for the cost of library expansion.
PFS-7.1	**P1.** The City shall continue to acquire additional supplies of water, including local groundwater and recycling, to meet future demands. **P2.** The City shall establish water demand reduction standards for new development and redevelopment to reduce per capita and total demand for water. **P3.** The City shall review proposed irrigation systems to ensure they provide required water efficiency. **P4.** The City shall review proposed new development and significant redevelopment to determine whether all feasible water conservation measures are being implemented. Possible measures include drought tolerant landscaping, efficient irrigation systems, and rain barrels. In conducting this review, the City shall consult State-wide resources governing water-efficient landscaping. **P5.** The City shall implement cost-effective water conservation programs that improve water-use efficiency, reduce water demand, and preserve the City's supplies. **P6.** The City shall coordinate with neighboring water agencies to implement regional water conservation programs as part of its water resource management strategy.
PFS-7.2	**P1.** The City shall maintain water storage, conveyance, and treatment infrastructure in good working condition in order to supply domestic water to all users with adequate quantities, flows, and pressures. Additionally, the City shall continue to work with the Inland Empire Utilities Agency to provide facilities for recycled water distribution.
PFS-7.3	**P1.** Structures with plumbing that are located within the City limits and do not have their own privately owned well shall connect to the City water supply system. **P2.** The City shall require new developments to dedicate land for water infrastructure such as treatment facilities, tanks, pump stations and wells as needed to support project development. **P3.** All new water facilities shall be designed to accommodate expected capacity for buildout of areas served by these facilities. **P4.** The City shall consider the availability of sufficient, reliable water when reviewing new development.
PFS-7.4	**P1.** The City's water supply portfolio and system facilities shall be managed to provide for adequate redundancy to address emergency conditions. **P2.** Future water systems and facilities shall be designed to minimize the likelihood of damage from vandalism or terrorist activity.

Table 4.3-2 Chino General Plan Policies

Objective No.	*Policies*
PFS-7.5	**P1.** The City shall review new development projects to determine and which are appropriate for recycled water piping systems ("purple pipe"). The City shall require these projects to incorporate such systems to facilitate the distribution and use of recycled water. In most cases, appropriate projects will be public facilities, industrial users, agricultural users, street medians, parkways, and parks. However, the City may identify large water consumption residential users as having potential for recycled water in cases where appropriate infrastructure exists and the residential users have extensive landscaping needs. **P2.** To the extent feasible, the City and development projects with purple pipe in place shall use recycled water for all nonpotable uses, such as landscape irrigation, dust control, industrial uses, cooling water, and irrigation of agricultural lands. This can include indoor as well as outdoor uses in an industrial setting. **P3.** As appropriate, the City shall require all businesses and industries to use recycled water for irrigation. **P4.** The City shall condition new industrial/commercial and residential developers to construct recycled water backbone facilities for their development. **P5.** The City shall provide recycled water piping systems to all new parks and schools.
PFS-8.1	**P1.** Where appropriate, the City shall use the project approval process to limit impermeable paving that negatively impacts surface water runoff. **P2.** Surface water resources shall be protected from contamination from runoff containing pollutants and sediment, through implementation of Best Management Practices. **P3.** The City shall work with other State and local agencies to identify and eliminate or minimize all sources of existing and potential point and non-point sources of pollution to ground and surface waters, including leaking fuel tanks, discharges from storm drains, auto dismantling, dump sites, sanitary waste systems, parking lots, roadways, and mining operations.
PFS-9.1	**P1.** The City shall maintain wastewater collection and conveyance infrastructure in good working condition in order to supply municipal sewer service to the City's residents and businesses. **P2.** All new development located within the City limits shall connect to the public wastewater collection system. **P3.** Subsequent to the Local Agency Formation Commission approval process, the City shall allow existing and new development in its Sphere of Influence to apply for and receive sanitary service from the City, as long as the development is consistent with the Land Use Element.
PFS-9.2	**P1.** The City shall ensure that all wastewater collection and conveyance facilities are constructed to serve the ultimate buildout of all developments. This shall be done in coordination with the Inland Empire Utilities Agency, which is responsible for providing sufficient treatment and trunk lines. **P2.** The City shall construct new wastewater conveyance facilities as needed. Individual development projects shall be responsible for construction of all collection lines. **P3.** The City shall condition approval of new development on the availability of sufficient capacity in the wastewater collection and treatment system to serve the project.
PFS-9.3	**P1.** The City shall continue to work with the Inland Empire Utilities Agency to ensure biosolid disposal is managed so as to minimize impacts to the environment and public health. **P2.** The City shall continue to implement its Improvement Program for recycled water distribution system.

Table 4.3-2 Chino General Plan Policies

Objective No.	*Policies*
PFS-10.1	**P1.** The City shall maintain stormwater runoff infrastructure in good condition through regular inspections, maintenance, and repair. **P2.** The City shall review stormwater runoff infrastructure to ensure that it minimizes local flooding by attaining capacity that conforms to the Master Plans of Drainage. **P3.** The City shall require that local stormwater runoff drainage improvements be built to carry design-year runoff flows resulting from buildout of the land uses shown in the Land Use Element. **P4.** The City shall require stormwater runoff drainage facilities to be consistent with State and federal requirements, including National Pollutant Discharge Elimination System (NPDES) requirements. **P5.** The City shall work with appropriate agencies to locate available facilities and to provide the retaining facilities necessary to recharge the groundwater basin using the City's stormwater. **P6.** The City shall continue to implement a local stormwater program that achieves compliance with the provisions of the City's NPDES permit for area-wide urban stormwater runoff. The City's stormwater program activities shall also be coordinated with neighboring agencies as needed. **P7.** The City shall continue to implement the City's Sewer System Management Plan to prevent sanitary sewer overflows from reaching local water bodies.
PFS-11.1	**P1.** Best Management Practices (BMPs) shall be used to reduce stormwater runoff where feasible. **P2.** The City shall require new development projects to be designed to minimize storm runoff to reduce the requirements for stormwater runoff drainage infrastructure and to improve runoff quality. **P3.** The City shall regulate stormwater runoff from urban uses to protect the quality of surface and ground water and other resources from detrimental conditions. **P4.** The City shall require new development projects to demonstrate that necessary stormwater runoff infrastructure is planned and is in compliance with environmental regulations.
PFS-12.1	**P1.** The City shall require mandatory trash, recycling, and greenwaste pick-up as a means to ensure a safe, sanitary environment. **P2.** The City shall support operation of household hazards material waste drop-off facilities. **P3.** The City shall strive to meet or exceed the State's goal of diverting 50 percent of all solid waste from landfills. **P4.** The City shall promote the redesign, reuse, composting, and shared producer responsibility of discarded material. **P5.** The City shall encourage local businesses to expand their recycling and composting efforts and to reduce packaging of products manufactured in the City. **P6.** The City shall encourage the use of post-consumer recycled paper and other recycled materials in all City operations.
AIR QUALITY ELEMENT	
AQ-1.1	**P1.** The City shall promote land use patterns that reduce the number and length of motor vehicle trips. **P2.** Where development opportunities near shopping areas and transit corridors exist, the City shall prioritize higher-density residential development. **P3.** The City shall encourage employment areas to include a mix of retail support services. **P4.** Design new intersections to function in a manner that reduces air pollutant emissions from stop and start and idling traffic conditions. **P5.** The City shall, to the extent practicable, separate sensitive land uses (schools, senior centers, medical facilities, and residences) from significant sources of air pollutants, toxic air contaminants, or odor emissions. **P6.** The City shall require developers of projects that include sensitive land uses (schools, senior centers, medical facilities, and residences) in proximity to State Route 71 and State Route 60 to prepare a health impact assessment (HIA) to determine the significance of the impact, and to incorporate project-specific mitigation measures to avoid this risk. **P7.** The City shall promote expansion of employment opportunities within Chino to reduce commuting to areas outside of the City. **P8.** The City shall continue to enforce the vehicle idling restrictions established by the State.

Table 4.3-2 Chino General Plan Policies

Objective No.	*Policies*
AQ-1.2	**P1.** The City shall coordinate its air quality planning efforts with other local, regional and State agencies, and encourage community participation in air quality planning. **P2.** The City shall work with the South Coast Air Quality Management District (SCAQMD) to ensure the earliest practicable attainment of federal and State ambient air quality standards. **P3.** The City shall utilize the CEQA process to identify and avoid or mitigate potentially significant air quality impacts associated with new development.
AQ-1.3	**P1.** The City shall assess the air quality impacts of project construction and operations using the latest version of the CEQA Guidelines and the guidelines prepared by the South Coast AQMD. **P2.** The City shall require best management practices to reduce air pollution associated with construction of development projects. **P3.** The City shall review construction plans associated with development projects to determine if all feasible mitigation measures are included.
AQ-1.4	**P1.** The City shall disseminate information about methods for reducing mold growth. **P2.** The City shall promote green building practices that support "healthy homes." **P3.** The City shall continue to support lead-abatement programs.
	NOISE ELEMENT
N-1.1	**P1.** The City shall not locate noise-sensitive land uses (schools, medical centers and hospitals, senior centers, and residences) in areas with noise levels that exceed those considered normally acceptable for each land use unless measures can be implemented to reduce noise to acceptable levels. **P2.** The City shall require measures to ensure noise-sensitive uses have appropriate interior noise environments when located in areas adjacent to major noise generators. **P3.** The City shall require measures that attenuate exterior and/or interior noise levels to acceptable levels to be incorporated into all development projects where current and/or future noise levels may be unacceptable. **P4.** The City shall require a noise impact study to evaluate impacts of projects that may exceed 65 Ldn as part of the design review process. **P5.** The City shall require an acoustical study for all new residential developments that lie within the 65 Ldn noise contour on the Future Noise Contour Map, to ensure indoor levels will not exceed City standards. In addition, the City shall continue to enforce the California Building Code for indoor noise levels. **P6.** The City shall only approve projects which comply with adopted noise standards, or meet the provisions of the California Environmental Quality Act. **P7.** The City shall require noise reduction features to be used in the site planning process for new projects where current and/or future noise levels may be unacceptable. The focus of these efforts shall be site design techniques, so long as they do not conflict with the goals of the Community Character Element. Techniques include: 1. Designing landscaped building setbacks to serve as a buffer between the noise source and receptor. 2. Placing noise-tolerant land uses such as parking lots, maintenance facilities, and utility areas between the noise source and receptor. 3. Orienting buildings to shield noise-sensitive outdoor spaces from a noise source. 4. Locating bedrooms or balconies on the sides of buildings facing away from noise sources. 5. Utilizing noise barriers (e.g. fences, walls, or landscaped berms) to reduce adverse noise levels in noise-sensitive outdoor activity areas.

Table 4.3-2 Chino General Plan Policies

Objective No.	*Policies*
N-1.2	**P1.** The City shall minimize transportation noise through street and right-of-way design or route coordination including reducing speed limits or planting street trees along high-volume arterials. **P2.** The City shall require mitigation of noise impacts for new roadway projects, including roadway alignment and noise barriers. **P3.** The City shall use pavement surfaces that reduce noise from roadways when paving or repaving whenever feasible. **P4.** The City shall seek to reduce impacts from groundborne vibration associated with rail operations by requiring that vibration-sensitive buildings (e.g. residences) are sited at least 100 feet from the centerline of the railroad tracks whenever feasible. The development of vibration-sensitive buildings within 100 feet from the centerline of the rail-road tracks would require a study demonstrating that groundborne vibration issues associated with rail operations have been adequately addressed (i.e. through building siting, foundation design, and construction techniques).
N-1.3	**P1.** The City shall require a noise monitoring plan to be prepared and submitted prior to starting all construction projects. The noise monitoring plan shall identify monitoring locations and frequency, instrumentation to be used, and appropriate noise control measures that will be incorporated. **P2.** The City shall limit all construction in the vicinity of noise sensitive land uses, such as residences, hospitals, or senior centers, to daylight hours or 7:00 a.m. to 7:00 p.m. In addition, the following construction noise control measures shall be included as requirements at construction sites to minimize construction noise impacts: ■ Equip all internal combustion engine-driven equipment with intake and exhaust mufflers that are in good condition and appropriate for the equipment. ■ Ensure that during construction, trucks and equipment are running only when necessary. ■ Shield all construction equipment with temporary noise barriers to reduce construction-related noise impacts. ■ Locate stationary noise-generating equipment as far as possible from sensitive receptors when sensitive receptors adjoin or are near a construction area. ■ Utilize "quiet" air compressors and similar equipment, where available. **P3.** The City shall evaluate new development projects for potential construction related noise impacts.
HOUSING ELEMENT	
H-1.1	**P1.** Preserve and enhance the existing character of established neighborhoods through neighborhood improvements and housing rehabilitation, and promote healthy neighborhood lifestyles. **P2.**Continue to provide home improvement assistance to low and moderate income households, seniors, and persons with disabilities. **P3.** Preserve and improve the quality of the rental housing stock through acquisition and/or rehabilitation. **P4.** Continue to use code enforcement to bring substandard units into compliance with City codes. **P5.** Promote increased awareness among property owners and tenants of the importance of property maintenance to long-term housing quality. **P6.** Ensure new infill residential development does not significantly impinge on the privacy of neighboring homes.
H-2.1	**P1.** Provide financial and technical assistance, as well as regulatory incentives to assist in the new construction of affordable housing. **P2.** Provide direct housing assistance to lower- and moderate-income households. **P3.** Preserve existing affordable housing units in apartment complexes and mobile home parks.
H-2.2	Encourage the use of green building techniques and other energy conservation devices.
H-2.3	Encourage the use of universal design principles to expand housing opportunities for persons with disabilities

Table 4.3-2 Chino General Plan Policies

Objective No.	*Policies*
H-3.1	**P1.** Encourage adequate provision of a wide range of housing by location, type, and price to meet the existing and future needs of residents. **P2.** Promote infill development of quality affordable housing as a strategy to stabilize older neighborhoods. **P3.** Support development at the maximum density allowed by General Plan 2025 along Riverside Drive and Central Avenue. **P4.** Use similar setbacks, complementary building arrangements and patterns to ensure new multi-family and mixed-use developments are compatible in style and scale with surrounding residential neighborhoods. **P5.** Ensure new residential development is adequately served with infrastructure and public facilities such as schools, sewage treatment, domestic water, public parks, fire control and police. **P6.** Work with landowners along Riverside Drive and Central Avenue to consolidate parcels so they can create large enough spaces for new development of either mixed-use or multi-family residential buildings.
H-4.1	**P1.** Offer financial and/or regulatory incentives where feasible to offset or reduce the costs to development of affordable housing. **P2.** Continue to improve the permit processing system to expedite development applications. **P3.** Provide priority processing for residential and mixed-use developments that include an affordable housing component or serve persons with disabilities. **P4.** Periodically review City regulations, ordinances, and development/planning fees to ensure that they not unduly constrain housing development.
H-5.1	**P1.** Ensure City policies and regulations comply with State and Federal fair housing laws. **P2.** Provide sensitivity and fair housing training to City staff with interaction with residents on housing matters. **P3.** Support outreach and education efforts to actively further fair housing practices and understanding in fair housing rights.

The policies summarized and listed in Table 4.3-2 can mitigate environmental impacts associated with the Regional Reduction Plan in the City of Chino. In addition, some of the Chino General Plan policies contain quantitative and/or qualitative criteria concerning environmental topics the City requires that are used as thresholds of significance.

The following summarizes the reduction measures and reduction targets chosen by the City of Chino in the Regional Reduction Plan.

The Chino Chapter of the San Bernardino County Regional GHG Reduction Plan

The City of Chino selected a goal to reduce its community GHG emissions to a level that is 15 percent below its 2008 emissions level by 2020. The City will meet and exceed this goal through a combination of state (~84 percent) and local (~16 percent) efforts. The City actually exceeds the goal with only state/county level actions (100 percent of goal), but has committed to several additional local measures. The Pavley vehicle standards, the state's low carbon fuel standard, the RPS, and other state measures will significantly reduce GHG emissions in Chino's on-road and building energy sectors in 2020. An additional reduction of 40,659 MT CO_2e will be achieved primarily through the following local measures, in order of importance: Implement SBX 7-7 (Water-4); Implementation of the SCS (Transportation-1); and Solar Installation for Existing Housing (Energy-7). Chino's Plan has the greatest impacts on GHG emissions in the on-road transportation, building energy, and solid waste management sectors.

The bars in Figure 4.3-2 (Emissions Reduction Profile for Chino) show Chino's 2008 GHG emissions total, 2020 BAU emissions forecast total, and the total emissions remaining after meeting the city's emissions reduction target (i.e., 15 percent below the 2008 emissions level). The contribution of state/county and local reductions are overlaid on the 2020 BAU emissions forecast total ("2020 Plan"), representing the total emissions reductions achieved in 2020. As stated above, state/county reductions account for the majority (~84 percent) of the total reductions needed to achieve the 2020 target.

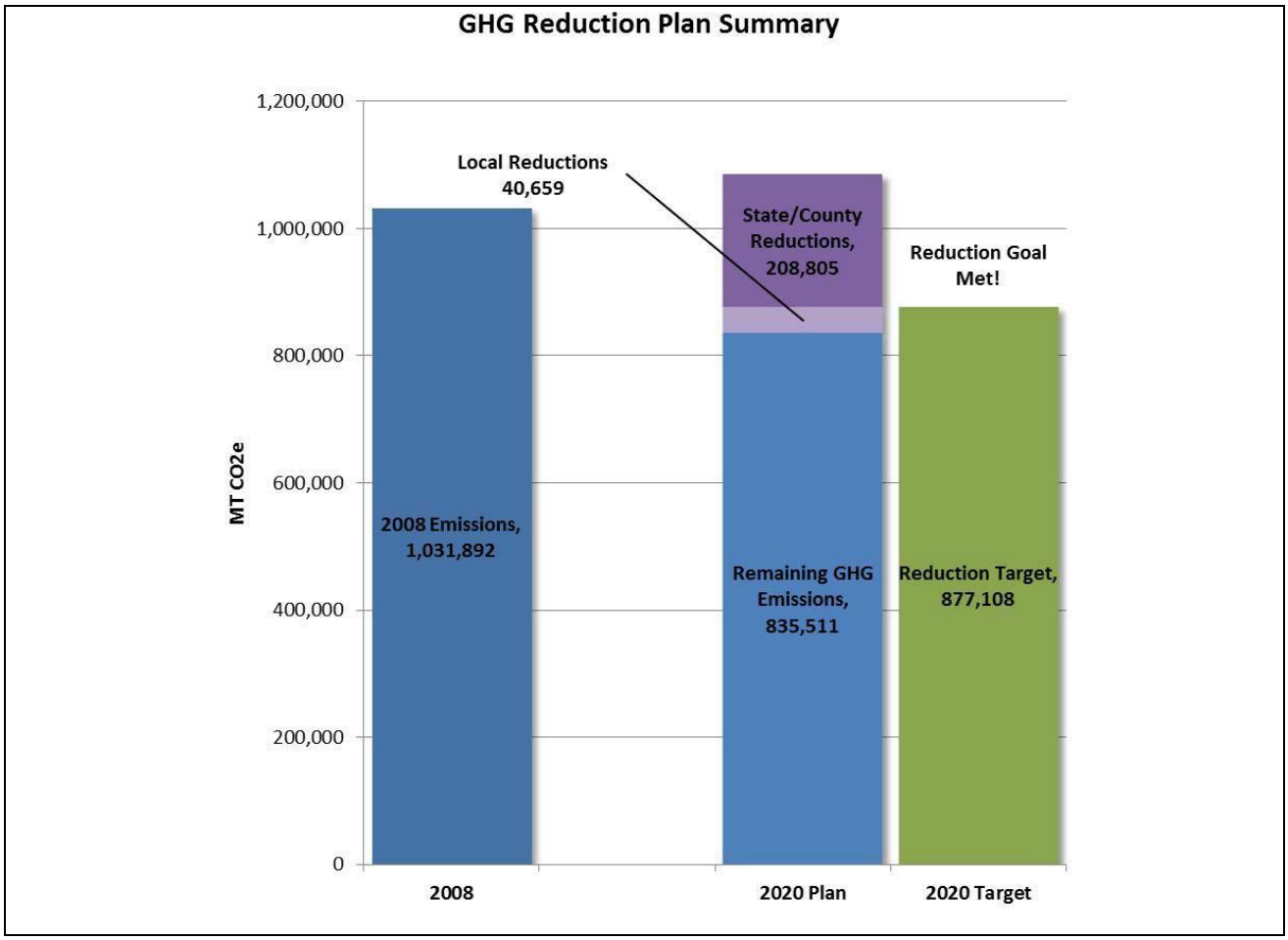

Figure 4.3-2 Emissions Reduction Profile for Chino

Figure 4.3-3 (Emissions by Sector for Chino) presents emissions by sector, for both the 2020 BAU and the 2020 reduction or "Plan" scenarios. The largest emissions contributions are in the on-road transportation, building energy, and off-road equipment emissions sectors. Table 4.3-3 (Emission Reduction by Sector for Chino) summarizes the 2008 inventory, 2020 BAU forecast, and GHG reduction ("Plan") results by sector. It shows the percent reduction in each sector's emissions in 2020 and demonstrates that Chino exceeds its emissions reduction goal. Emissions sectors with the greatest percent reduction include the on-road transportation, building energy, and solid waste management sectors.

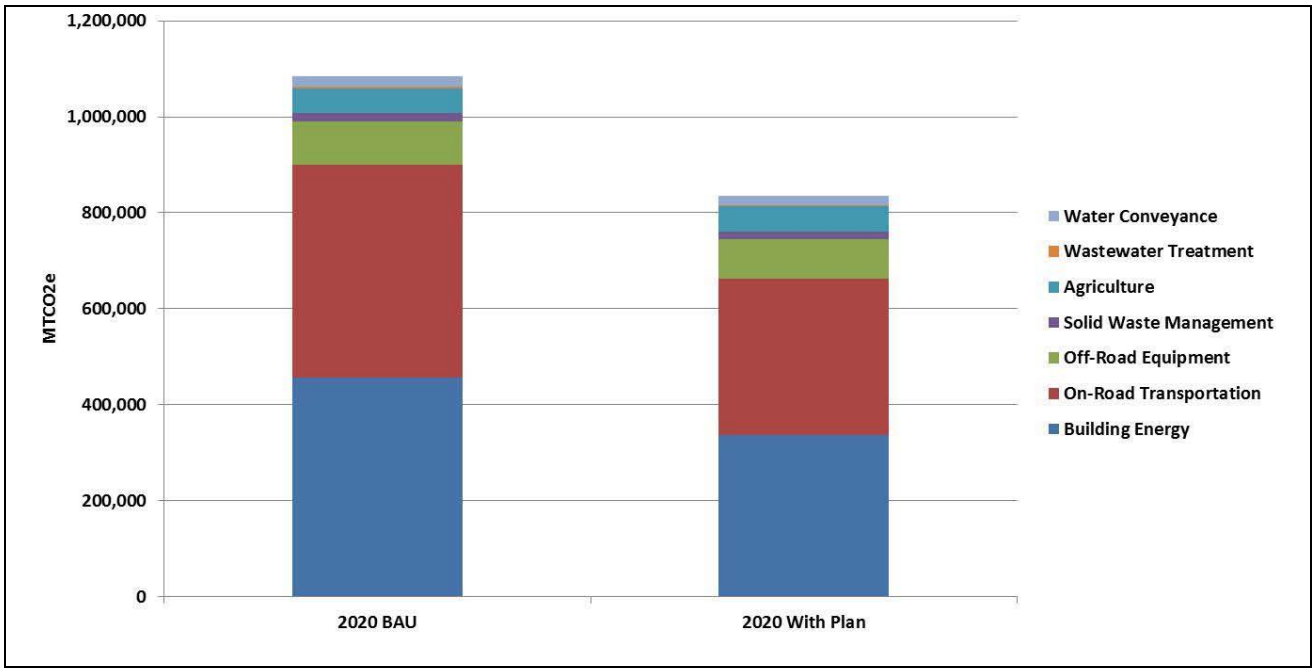

Figure 4.3-3 Emissions by Sector for Chino

Table 4.3-3 Emission Reduction by Sector for Chino

Sector	*2008*	*2020 BAU*	*Reductions*	*2020 Emissions with Plan*	*% Reduction*
Building Energy	403,585	456,978	119,138	337,840	26.1%
On-Road Transportation	407,132	443,060	113,419	329,641	25.6%
Off-Road Equipment	82,908	90,661	8,100	82,562	8.9%
Solid Waste Management	16,239	17,305	2,077	15,227	12.0%
Agriculture 356	101,287	51,623	0	51,623	0%
Wastewater Treatment 6	3,057	3,613	232	3,381	6.4%
Water Conveyance 29	17,684	21,736	2,432	19,305	11.2%
GHG Performance Standard*	—	—	286	—	—
Total Emissions	***1,031,892***	***1,084,975***	***245,685***	***839,290***	***23.0%***
Reduction Goal	**—**	**—**	**207,867**	**877,108**	**15%**
Met Goal?	—	—	Yes	Yes	Yes
Reductions Beyond Goal	**—**	**—**	***41,597***	**—**	**—**
Per-Capita Emissions	13.7	12.2	—	9.4	—
Per-Job Emissions	21.3	20.3	—	15.6	—
Excluded Stationary Source Emissions	207,650	244,412	—	—	—

SOURCE: San Bernardino Associated Governments, *San Bernardino County Regional Greenhouse Gas Reduction Plan*, Draft, Prepared by ICF International (December 2012).

Values may not sum due to rounding.

* The GHG Performance Standard for New Development is not a sector of the inventory, but it provides broad reductions and contributes toward the City's reduction goal by promoting reductions in multiple sectors.

Figure 4.3-4 (Emission Reductions by Control and by Sector for Chino) presents emission reductions by sector and by control (i.e., state/county control versus local or city control). As stated previously, the majority of emissions reductions are due to state/county measures. Of the state/county measures, the majority of reductions are in the building energy and on-road transportation sectors. Of the local measures, the majority of reductions are in the building energy sector and due to the implementation of SBX 7-7 (Water-4).

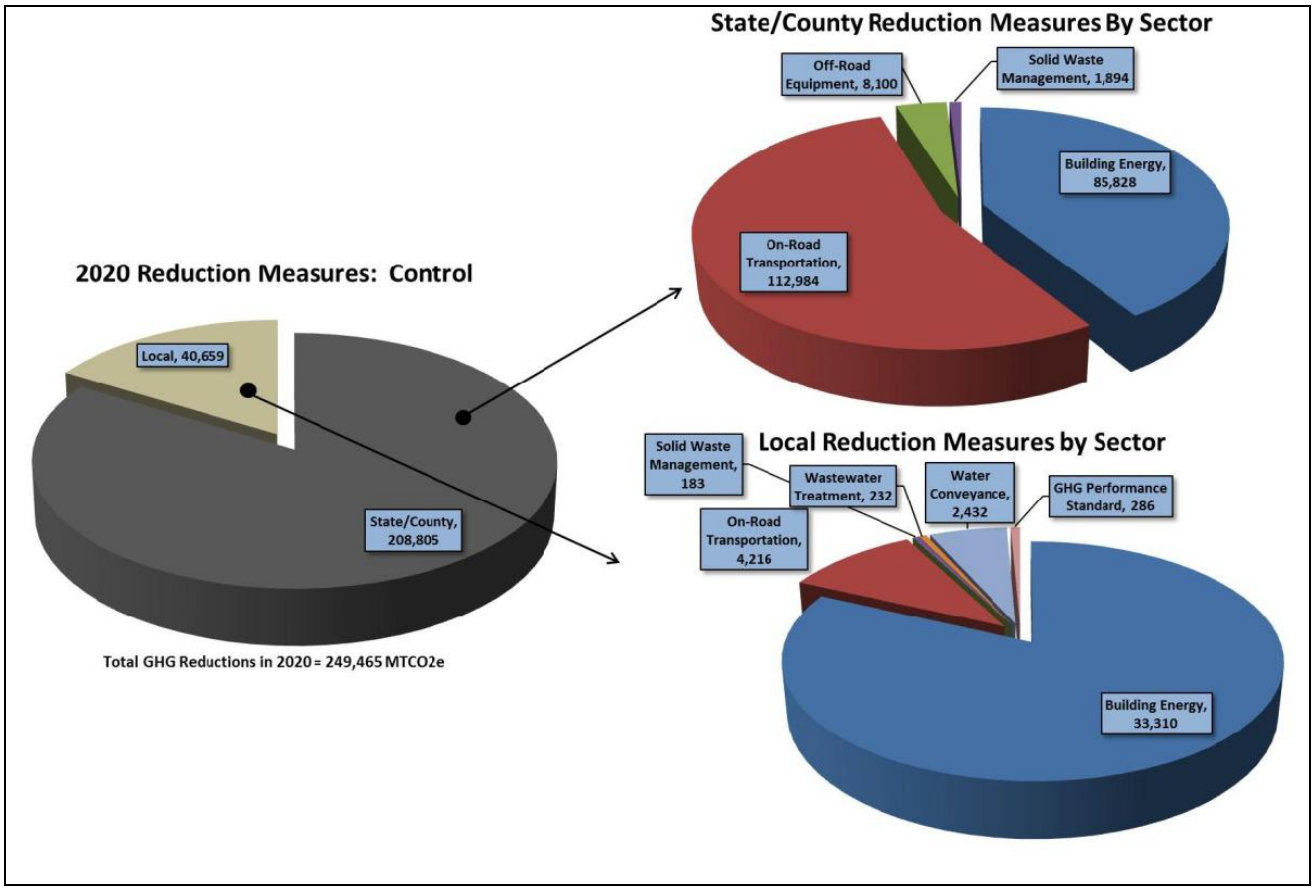

Figure 4.3-4 Emission Reductions by Control and by Sector for Chino

Table 4.3-4 (GHG Reduction Measures and Estimated 2020 Reduced Emissions in Chino) presents each reduction measure evaluated for Chino. For each measure, the short title and estimated GHG reductions in 2020 are listed. Measures are organized by state/county control and local control and listed by sector.

Table 4.3-4 GHG Reduction Measures and Estimated 2020 Reduced Emissions in Chino

Reduction Measure Number	*Description*	*Emissions Reductions*
STATE AND COUNTY MEASURES		
State-1	Renewable Portfolio Standard	54,378
State-2	Title 24	13,112
State-3	AB 1190	14,256
State-4	Solar Water Heating	204
State-5	Industrial Boiler Efficiency	3,878
State-6	Pavley and Low Carbon Fuel Standard	103,180
State-7	AB 32 Transportation Reduction Strategies	9,804
State-8	Low Carbon Fuel Standard-Off-road	8,100
State-9	AB 32 Methane Capture	1
County-1	County GHG Reduction Plan Landfill Controls	1,893
LOCAL MEASURES		
Building Energy		
Energy-1	Energy Efficiency for Existing Buildings	2,019
Energy-4	Solar Installation for New Housing	359
Energy-5	Solar Installation for New Commercial	1,104
Energy-7	Solar Installation for Existing Housing	2,629
Energy-8	Solar Installation for Existing Commercial	1,569
Wastewater-2 (BE)	*Equipment Upgrades*	*1,249*
Water-4 (BE)	*Implement SBX 7-7*	*24,381*
On-Road Transportation		
Transportation-2	Smart Bus Technologies	436
Solid Waste Management		
Waste-2	Waster Diversion	183
Wastewater Treatment		
Water-4 (WT)	*Implement SBX 7-7*	*232*
Water Conveyance		
Water-3	Water-Efficient Landscaping Practices	754
Water-4	Implement SBX 7-7	1,678
GHG Performance Standard for New Development		
PS-1	GHG Performance Standard for New Development (29% below projected BAU emissions for the project)	286

Table 4.3-4 GHG Reduction Measures and Estimated 2020 Reduced Emissions in Chino

Reduction Measure Number	Description	Emissions Reductions
Total Reductions		***245,685***

SOURCE: San Bernardino Associated Governments, *San Bernardino County Regional Greenhouse Gas Reduction Plan*, Draft, Prepared by ICF International (December 2012).

BE = building energy; WT = wastewater treatment; WC = water conveyance

Values may not sum due to rounding.

The Low Carbon Fuel Standard (LCFS) reduces emissions in both the on-road transportation and off-road equipment sectors, because the standard reduces the carbon content of fuels used in both sectors.

Measures in *italics* result in GHG reductions in multiple sectors. For example, Water-1 reduces the amount of water consumed in the city, which reduces emissions for conveying that water (water conveyance sector), the energy needed to heat that water (building energy sector), and the energy required to treat the associated wastewater (wastewater treatment sector).

* These are measures where the avoided annual GHG emissions are small relative to the cost and effort to implement the measure on the City's part. Although the City has selected this measure, ICF recommends that the City not pursue this GHG reduction measure.

Summary of Environmental Impacts and Mitigation Measures

The Regional Reduction Plan City of Chino Chapter describes The Proposed Project including the reduction measures and reduction targets chosen by the City of Chino. The physical impacts of implementing these reduction measures and achieving the reduction targets is reviewed in this chapter of the EIR to determine the significance of the Regional Reduction Plan as it relates to the City of Chino. No comment letters specific to the City of Chino were received in response to the notice of preparation (NOP) circulated for the Proposed Project.

Table 4.3-5 (Summary of Environmental Impacts of Implementing Local Reduction Measures in Chino) summarizes the environmental impacts of implementing the Regional Reduction Plan local reduction measures by issue area.

Mitigation measures were identified to reduce the following potentially significant impacts to less-than-significant levels:

<u>Aesthetics (Scenic Vistas, Visual Character, Light and Glare)</u>

MM4.3.1-1a *Renewable energy generating facilities shall be placed or constructed below any major ridgeline when viewed from any designated scenic corridor as identified in the Chino General Plan.*

MM4.3.1-1b *Renewable energy generating facilities shall not be:*

- *Located within a scenic corridor as identified in the Chino General Plan*
- *Located in an area that would substantially obstruct views of adjacent property owners*
- *Allowed in areas where prohibited by the Alquist-Priolo Earthquake Fault Zoning Act, the terms of any easement, or the listing of the proposed site in the National Register of Historic Places or the California Register of Historical Resources, or on the City's Historic Inventory*

MM4.13.1-1c *Renewable energy generating facilities shall be limited to a height of 80 feet on parcels between one and 5 acres, and limited to a height of 100 feet on parcels greater than 5 acres.*

MM4.3.1-2a *The minimum setback from any nonresidential property line shall be equal to the renewable energy system height.*

MM4.3.1-2b *The minimum setback of a commercial-scale renewable energy system from any residential property line shall be at least 1,500 feet.*

MM4.3.1-2c *On open space, only one renewable energy system unit per 10 acres shall be allowed. Units shall be installed with at least 240 feet separation from each other. If the units are to 50 feet in height, a maximum of two units may be installed for every 5 acres. For every additional 5 acres, one additional unit may be added not to exceed a maximum of five units and the separation between the units may be reduced to twice the height of the systems.*

MM4.3.1-2d *Renewable energy generating facilities not incorporated into the building, or part of the parking structure, or considered an accessory structure to an existing residence shall be prohibited in urbanized residential neighborhoods.*

MM4.3.1-2e *Residential properties less than 5 acres shall be limited to one accessory wind energy system that shall not exceed the height of the zone in which it is located.*

MM4.3.1-2f *Residential properties that are 5 acres and more shall be limited to two accessory wind energy systems that shall not exceed the height of the zone in which it is located.*

MM4.3.1-3a *All proposed energy-generating structures shall be constructed utilizing non-reflective materials to the maximum extent feasible. If a reflective material is used, appropriate shielding shall be placed or the structure relocated to reduce the amount of visible glare. The City shall review all discretionary projects prior to issuance of building permits to ensure that appropriate shielding and placement of such structures are included in design plans.*

MM4.3.1-3b *All proposed energy-generating structures in open spaces areas shall not be lighted unless required by code or regulation.*

Cultural Resources (Historical Resources)

MM4.3.5-1 *Prior to activities that would physically affect any buildings or structures 50 years old or older or affect their historic setting, a cultural resource professional who meets the Secretary of the Interior's Professional Qualifications Standards for Architectural History shall be retained to determine if the project would cause a substantial adverse change in the significance of a historical resource as defined in CEQA Guidelines Section 15064.5. The investigation shall include, as determined appropriate by the cultural resource professional and the City of Chino, the appropriate archival research, including, if necessary, a records search of the Archaeological Information Center (AIC) of the California Historical Resources Information System (CHRIS) and a pedestrian survey of the proposed improvements area to determine if any significant historic-period resources would be adversely affected by the proposed Regional Reduction Plan activities. The results of the investigation shall be documented in a technical report or memorandum that identifies and evaluates any historical resources within the improvements area and includes recommendations and methods for eliminating or reducing impacts on historical resources. Methods could include, but are not limited to, written and photographic recordation of the resource in accordance with the level of Historic American Building Survey (HABS) documentation that is appropriate to the significance (local, state, national) of the resource.*

Table 4.3-5 Summary of Environmental Impacts of Implementing Local Reduction Measures in Chino

NI = no impact; LS = less than significant; LS/PR = less than significant with implementation of policies/regulations; LS/MM = less than significant with mitigation measures

Environmental Impacts	*Regional Reduction Plan Local Reduction Measure*											
	Energy-1	*Energy-4*	*Energy-5*	*Energy-7*	*Energy-8*	*Wastewater-2*	*Transportation-1*	*Transportation-2*	*Water-3*	*Water-4*	*Waste-2*	*PS-1*
Aesthetics												
Scenic vistas	LS	LS/PR	**LS/MM**	**LS/MM**	**LS/MM**	NI	**LS/MM**	NI	NI	NI	NI	NI
Scenic highways	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
Visual character or quality	LS	LS/PR	**LS/MM**	**LS/MM**	**LS/MM**	NI	**LS/MM**	NI	NI	NI	NI	NI
Light and glare	LS	LS/PR	**LS/MM**	**LS/MM**	**LS/MM**	NI	**LS/MM**	NI	NI	NI	NI	NI
Cumulative impacts	LS	LS/PR	LS/MM	LS/MM	LS/MM	NI	LS/MM	NI	NI	NI	NI	NI
Agriculture/Forestry Resources												
Convert farmland to nonagricultural use	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
Conflict with existing agricultural zoning or Williamson Act	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
Conflict with existing forest land or timberland zoning	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
Loss or conversion of forest land to nonforest land	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
Other changes causing conversion of farmland to nonfarmland use or forest land to nonforest land use	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
Cumulative impacts	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
Air Quality												
Conflict or obstruct air quality management plan	LS	LS	LS	LS	LS	LS	LS	LS	LS	NI	LS	NI
Violation of air quality standard	LS	NI	LS	LS	NI	LS	LS	NI	NI	NI	NI	NI
Exposure of sensitive receptors	NI	NI	NI	NI	NI	NI	LS	NI	NI	NI	NI	NI
Creation of objectionable odors	NI	NI	NI	NI	NI	NI	LS	NI	NI	NI	NI	NI
Cumulatively considerable net increase of any nonattainment criteria pollutant	LS	LS	LS	LS	LS	NI	LS	LS	LS	LS	LS	NI

Table 4.3-5 Summary of Environmental Impacts of Implementing Local Reduction Measures in Chino

NI = no impact; LS = less than significant; LS/PR = less than significant with implementation of policies/regulations; LS/MM = less than significant with mitigation measures

Environmental Impacts	*Regional Reduction Plan Local Reduction Measure*											
	Energy-1	*Energy-4*	*Energy-5*	*Energy-7*	*Energy-8*	*Wastewater-2*	*Transportation-1*	*Transportation-2*	*Water-3*	*Water-4*	*Waste-2*	*PS-1*
Biological Resources												
Special-status species	NI	NI	LS/PR	LS/PR	NI	NI	LS/PR	NI	NI	NI	NI	NI
Riparian habitat or other sensitive natural community	NI	NI	LS/PR	LS/PR	NI	NI	LS/PR	NI	NI	NI	NI	NI
Protected wetlands	NI	NI	LS/PR	LS/PR	NI	NI	LS/PR	NI	NI	NI	NI	NI
Wildlife movement	NI	NI	LS/PR	LS/PR	NI	NI	LS/PR	NI	NI	NI	NI	NI
Conflict with any local policies or ordinances protecting biological resources	NI	NI	LS/PR	LS/PR	NI	NI	LS/PR	NI	NI	NI	NI	NI
Conflict with habitat conservation plan	NI	NI	LS/PR	LS/PR	NI	NI	LS/PR	NI	NI	NI	NI	NI
Cumulative impacts	NI	NI	LS/PR	LS/PR	NI	NI	LS/PR	NI	NI	NI	NI	NI
Cultural Resources												
Substantial adverse change in significance of a historical resource	**LS/MM**	NI	**LS/MM**	**LS/MM**	NI	NI	**LS/MM**	NI	NI	NI	NI	NI
Substantial adverse change in significance of a archaeological resource	NI	NI	LS/PR	LS/PR	NI	NI	LS/PR	NI	NI	NI	NI	NI
Destruction of a unique paleontological resource or site or unique geologic feature	NI	NI	LS/PR	LS/PR	NI	NI	LS/PR	NI	NI	NI	NI	NI
Disturb any human remains	NI	NI	LS/PR	LS/PR	NI	NI	LS/PR	NI	NI	NI	NI	NI
Cumulative impacts	LS/MM	NI	LS/MM	LS/MM	NI	NI	LS/MM	NI	NI	NI	NI	NI
Geology/Soils												
Fault rupture, strong seismic groundshaking, seismic-related ground failure, including liquefaction, landslides	NI	LS/PR	LS/PR	LS/PR	LS/PR	LS	LS/PR	NI	NI	NI	NI	NI
Substantial soil erosion or loss of topsoil	NI	NI	LS/PR	LS/PR	NI	NI	LS/PR	NI	NI	NI	NI	NI
Located on a geologic unit or soil that is unstable, resulting in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse	NI	NI	LS/PR	LS/PR	NI	NI	LS/PR	NI	NI	NI	NI	NI
Located on expansive soil	NI	NI	LS/PR	LS/PR	NI	NI	LS/PR	NI	NI	NI	NI	NI

Table 4.3-5 Summary of Environmental Impacts of Implementing Local Reduction Measures in Chino

NI = no impact; LS = less than significant; LS/PR = less than significant with implementation of policies/regulations; LS/MM = less than significant with mitigation measures

Environmental Impacts	*Regional Reduction Plan Local Reduction Measure*											
	Energy-1	*Energy-4*	*Energy-5*	*Energy-7*	*Energy-8*	*Wastewater-2*	*Transportation-1*	*Transportation-2*	*Water-3*	*Water-4*	*Waste-2*	*PS-1*
Soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
Cumulative impacts	NI	NI	LS/PR	LS/PR	NI	LS	LS/PR	NI	NI	NI	NI	NI
Greenhouse Gas Emissions/Global Climate Change												
Generate greenhouse gas emissions	LS	LS	LS	LS	LS	LS	LS	LS	LS	LS	LS	LS
Conflict with an applicable plan, policy, or regulation to reduce greenhouse gas emissions	LS	LS	LS	LS	LS	LS	LS	LS	LS	LS	LS	LS
Hazards/Hazardous Materials												
Create significant hazard through the routine transport, use, or disposal of hazardous materials	LS/PR	NI	LS/PR	LS/PR	NI	NI	LS/PR	NI	NI	NI	NI	NI
Create significant hazard through release of hazardous materials	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
Emit hazardous emissions or handle acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
Located on a site that is included on a list of hazardous materials sites, creating significant hazard	NI	NI	LS/PR	LS/PR	NI	NI	LS	NI	NI	NI	NI	NI
Located within 2 miles of a public airport or public use airport	NI	NI	LS/PR	LS/PR	NI	NI	LS/PR	NI	NI	NI	NI	NI
Located within the vicinity of a private airstrip	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
Impair or interfere with an adopted emergency response plan or emergency evacuation plan	NI	NI	LS/PR	LS/PR	NI	NI	LS/PR	NI	NI	NI	NI	NI
Risk of loss, injury, or death involving wildland fires	NI	NI	LS/PR	LS/PR	NI	NI	LS/PR	NI	NI	NI	NI	NI
Cumulative impacts	LS/PR	NI	LS/PR	LS/PR	NI	NI	LS/PR	NI	NI	NI	NI	NI
Hydrology/Water Quality												
Violate any water quality standards or waste discharge requirements	NI	NI	LS/PR	LS/PR	NI	NI	LS/PR	NI	NI	NI	NI	NI
Deplete groundwater supplies or interfere with groundwater recharge	NI	NI	NI	NI	NI	NI	LS	NI	NI	NI	NI	NI
Alter the existing drainage pattern of the site or area, resulting in substantial erosion or siltation	NI	NI	LS/PR	LS/PR	NI	NI	LS/PR	NI	NI	NI	NI	NI

Table 4.3-5 Summary of Environmental Impacts of Implementing Local Reduction Measures in Chino

NI = no impact; LS = less than significant; LS/PR = less than significant with implementation of policies/regulations; LS/MM = less than significant with mitigation measures

Environmental Impacts	*Regional Reduction Plan Local Reduction Measure*											
	Energy-1	*Energy-4*	*Energy-5*	*Energy-7*	*Energy-8*	*Wastewater-2*	*Transportation-1*	*Transportation-2*	*Water-3*	*Water-4*	*Waste-2*	*PS-1*
Alter the existing drainage pattern of the site or area, resulting in on- or off-site flooding	NI	NI	NI	NI	NI	NI	LS/PR	NI	NI	NI	NI	NI
Exceed the capacity of existing or planned stormwater drainage systems or provide additional sources of polluted runoff	NI	NI	LS/PR	LS/PR	NI	NI	LS/PR	NI	NI	NI	NI	NI
Otherwise degrade water quality	NI	NI	LS	LS	NI	NI	NI	NI	NI	NI	NI	NI
Place housing within a 100-year flood hazard area	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
Place within a 100-year flood hazard area structures that would impede or redirect flood flows	NI	NI	LS/PR	LS/PR	NI	NI	LS/PR	NI	NI	NI	NI	NI
Risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam	NI	NI	LS/PR	LS/PR	NI	NI	LS/PR	NI	NI	NI	NI	NI
Inundation by seiche, tsunami, or mudflow	NI	NI	LS	LS	LS	NI	LS	NI	NI	NI	NI	NI
Cumulative impacts	NI	NI	LS/PR	LS/PR	NI	NI	LS/PR	NI	NI	NI	NI	NI
Land Use/Planning												
Physically divide an established community	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
Conflict with any applicable land use plan, policy, or regulation	LS	LS	LS	LS	LS	LS	LS	LS	LS	LS	LS	LS
Conflict with any applicable habitat conservation plan or natural community conservation plan	NI	NI	LS/PR	LS/PR	NI	NI	LS/PR	NI	NI	NI	NI	NI
Cumulative impacts	LS	LS	LS/PR	LS/PR	LS	LS	LS/PR	LS	LS	LS	LS	LS
Mineral Resources												
Loss of availability of a known mineral resource	NI	NI	NI	NI	NI	NI	LS/PR	NI	NI	NI	NI	NI
Loss of availability of a locally important mineral resource recovery site	NI	NI	NI	NI	NI	NI	LS/PR	NI	NI	NI	NI	NI
Cumulative impacts	NI	NI	NI	NI	NI	NI	LS/PR	NI	NI	NI	NI	NI
Noise												
Noise levels in excess of standards established in the local general plan or noise ordinance	NI	NI	LS/PR	LS/PR	NI	NI	LS/PR	NI	NI	NI	NI	NI

Table 4.3-5 Summary of Environmental Impacts of Implementing Local Reduction Measures in Chino

NI = no impact; LS = less than significant; LS/PR = less than significant with implementation of policies/regulations; LS/MM = less than significant with mitigation measures

Environmental Impacts	*Regional Reduction Plan Local Reduction Measure*											
	Energy-1	*Energy-4*	*Energy-5*	*Energy-7*	*Energy-8*	*Wastewater-2*	*Transportation-1*	*Transportation-2*	*Water-3*	*Water-4*	*Waste-2*	*PS-1*
Excessive groundborne vibration or groundborne noise levels	NI	NI	LS/PR	LS/PR	NI	NI	LS/PR	NI	NI	NI	NI	NI
Permanent increase in ambient noise levels	NI	NI	NI	NI	NI	NI	LS/PR	NI	NI	NI	NI	NI
Temporary or periodic increase in ambient noise levels	NI	NI	LS/PR	LS/PR	NI	NI	LS/PR	NI	NI	NI	NI	NI
Excessive noise levels within 2 miles of a public airport or public use airport	NI	NI	NI	NI	NI	NI	LS/PR	NI	NI	NI	NI	NI
Excessive noise levels within the vicinity of a private airstrip	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
Cumulative impacts	NI	NI	LS/PR	LS/PR	NI	NI	LS/PR	NI	NI	NI	NI	NI
Population/Housing												
Induce substantial population growth	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
Displace substantial numbers of existing housing	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
Displace substantial numbers of people	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
Cumulative impacts	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
Public Services												
Provision or need of new or physically altered governmental facilities to maintain acceptable service ratios, response times, or other performance objectives for public services	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
Cumulative impacts	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
Recreation												
Physical deterioration of recreational facilities	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
Construction or expansion of recreational facilities	NI	NI	NI	NI	NI	NI	LS/PR	NI	NI	NI	NI	NI
Cumulative impacts	NI	NI	NI	NI	NI	NI	LS/PR	NI	NI	NI	NI	NI

Table 4.3-5 Summary of Environmental Impacts of Implementing Local Reduction Measures in Chino

NI = no impact; LS = less than significant; LS/PR = less than significant with implementation of policies/regulations; LS/MM = less than significant with mitigation measures

Environmental Impacts	*Regional Reduction Plan Local Reduction Measure*											
	Energy-1	*Energy-4*	*Energy-5*	*Energy-7*	*Energy-8*	*Wastewater-2*	*Transportation-1*	*Transportation-2*	*Water-3*	*Water-4*	*Waste-2*	*PS-1*
Transportation/Traffic												
Conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system	NI	NI	NI	NI	NI	NI	LS	NI	NI	NI	NI	NI
Conflict with an applicable congestion management program	NI	NI	NI	NI	NI	NI	LS	NI	NI	NI	NI	NI
Change in air traffic patterns that results in substantial safety risks	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
Increase hazards due to a design feature or incompatible uses	NI	NI	LS/PR	LS/PR	NI	NI	LS/PR	NI	NI	NI	NI	NI
Inadequate emergency access	NI	NI	LS/PR	LS/PR	NI	NI	LS/PR	NI	NI	NI	NI	NI
Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities	NI	NI	NI	NI	NI	NI	LS	NI	NI	NI	NI	NI
Cumulative impacts	NI	NI	LS/PR	NI	NI	NI	LS/PR	NI	NI	NI	NI	NI
Utilities/Service Systems												
Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board	NI	NI	NI	NI	NI	LS	NI	NI	NI	NI	NI	NI
Construction or expansion of new or existing water or wastewater treatment facilities	NI	NI	NI	NI	NI	LS	NI	NI	LS	NI	NI	NI
Construction or expansion of new or existing stormwater drainage facilities	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
Insufficient water supplies from existing entitlements and resources, or need new or expanded entitlements	NI	NI	NI	NI	NI	NI	NI	NI	LS	NI	NI	NI
Inadequate wastewater treatment capacity	NI	NI	NI	NI	NI	LS	NI	NI	NI	LS	NI	NI
Insufficient permitted solid waste disposal capacity	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI	NI
Noncompliance with federal, state, or local statutes and regulations related to solid waste	NI	NI	NI	NI	NI	NI	NI	NI	LS	NI	NI	NI
Cumulative impacts	NI	NI	NI	NI	NI	LS	NI	NI	LS	LS	NI	NI

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4.3.1 Aesthetics

This section of the EIR analyzes the potential environmental effects on aesthetics in the City of Chino from implementation of the Regional Reduction Plan. Data for this section were taken from the Chino General Plan (July 2010a) and associated environmental impact report (January 2010b). Full reference-list entries for all cited materials are provided at the end of this section.

No comment letters addressing aesthetics were received in response to the notice of preparation (NOP) circulated for the Regional Reduction Plan.

Environmental Setting

As set forth in CEQA Guidelines Section 15125(a) this section describes the physical environmental conditions in the City at the time the environmental analysis commenced. It constitutes the baseline physical conditions by which the City of Chino will determine whether an Aesthetic impact is significant.

Urban Visual Character

The dominant visual characteristic in the City of Chino is the San Gabriel Mountain range to the north and Chino Hills to the southwest. From a regional perspective, Chino is located in a developed, urban/suburban area. Developed land uses (residential, mixed use, commercial, industrial, open space/recreation, agricultural, urban reserve, institutions, and public) are located throughout the City. The following is a brief description of the primary areas in Chino with a discussion of the visual character of each (Chino 2010a, pp. 4.1-2 to 4.1-4).

Chino's Civic Center

This area is the core of the City, located at Central Avenue and Chino Avenue, which features key civic components, such as the City Hall, Neighborhood Activities Center, Senior Center, a branch of the County Library, and the Chino Transit Center.

Downtown

A limited number of older, commercial buildings adjacent to the Civic Center constitute Chino's Downtown. These buildings survive from the early days of Chino and provide a connection to the City's past.

Central Neighborhoods

These are the oldest residential areas surrounding the Civic Center. They fit the pattern of traditional neighborhoods and contain one- and two-story bungalows, many of which predate the 1920s. Many of the streets have good tree cover that provides shade for streets, sidewalks and front yards. An alley system exists so that front sidewalks are not interrupted by driveways. The design of these homes has historically included front porches and other features that emphasize a pedestrian scale. Such details are not as evident in recent construction and remodels.

20th Century Suburban Neighborhoods

These neighborhoods were built in the decades following World War II up to the 1980s and later. They are primarily auto-oriented, with limited sidewalks and prominent garages. The street network is less regular than the central neighborhoods, including more cul-de-sacs that restrict connectivity within the neighborhoods.

East Chino

This area was primarily developed beginning in the late 1980s through the present, and is characterized by a loop road that connects single-family residence neighborhoods to a series of school sites and parks. The properties between Fern and Euclid Avenues form an "activity corridor" of higher-intensity uses, such as multi-family housing, shopping centers and business parks. Neighborhood entry monuments located on arterial streets are also a defining characteristic of this area.

Rural Neighborhoods

The rural neighborhoods predominate in the northwest part of Chino, as well as the unincorporated SOI. They are marked by parcels that are deeper than they are wide, and streets that lack curbs, gutters, sidewalks, and trees. The homes in these neighborhoods are more varied than in the 20th Century suburban neighborhoods, reflecting development in different time periods. Some of these areas focus on rural uses such as horse-raising or small-scale crops.

The Preserve and College Park

These two Specific Plan areas were designed in the early 2000s using New Urbanist principles. They incorporate mixed-use development, which brings community services close to where people live. Walkability is also a central theme of the design of these two areas. The homes are more varied in size and design than in other parts of the City.

Retail Corridors

Chino includes several retail corridors in close proximity to where people live and work. The main corridors are along Central Avenue and Riverside Drive. They were built as the City expanded over the past fifty years, but have never developed a cohesive look and feel. They include a wide range of development types, including small offices, mini-malls, some multi-family housing, and restaurants. Some buildings are close to the street, while others have extensive front parking lots.

Shopping Centers

Unlike retail corridors, which developed gradually, a shopping center in Chino was more likely developed, or redeveloped, all at one time. The primary shopping centers are the Chino Spectrum and those near the intersection of State Route 60 and Central Avenue. They include extensive parking areas and pedestrian connections between the stores, allowing patrons to stroll from one store to another.

Industrial Areas

Chino's industrial areas are primarily located in the southern part of the City, and consist of very large warehouse and manufacturing buildings. These buildings feature large loading docks and are separated

from the rest of the City by driveways and employee parking lots. Some small-scale industrial uses, including those just to the south of the Civic Center, are more integrated into the surrounding area, with smaller buildings, driveways, and loading areas.

Agricultural Areas

Agricultural uses remain throughout Chino. Most are dairy operations in the southern part of the City. These consist primarily of feeding areas and barns. Some open agricultural fields with accompanying windrows are found in the City. Although these areas are now limited in size, they provide a strong connection to Chino's agricultural past.

Open Space Areas

Open space areas in Chino consist primarily of open fields in the southern part of the City, below the 566-foot elevation line associated with the Prado Dam.

Institutions

By far the largest institution in Chino is the California Institution for Men, a large prison facility in the southern part of the City. Its main buildings are not visible from public roads, but the facility separates southern parts of Chino, including The Preserve and the Chino Airport, from the older, more established parts of the City.

Regulatory Framework

Federal

There are no federal regulations pertaining to visual quality.

State

State Scenic Highways Program

The State Scenic Highways program administered by the California Department of Transportation identifies scenic highways. As the City of Chino does not contain any highway segments designated a State Scenic highway and the Regional Reduction Plan would not have a significant impact on scenic highways, these regulations are not applicable.

The California legislature passed a bill in 2001 requiring the California Energy Commission (CEC) to adopt energy efficiency standards for outdoor lighting for both the public and private sectors. In response to the legislature in November 2003, the CEC adopted changes to the Title 24, Parts 1 and 6, Building Energy Efficiency Standards. These standards became effective on October 1, 2005, and included changes to the requirements for outdoor lighting for residential and nonresidential development. The new standards will likely improve the quality of outdoor lighting and help to reduce the impacts of light pollution, light trespass, and glare. The standards regulate lighting characteristics such as maximum power and brightness, shielding, and sensor controls to turn lighting on and off. Different lighting standards are set by classifying areas by lighting zone. The classification is based on population figures of the 2000 Census. These areas are designated as LZ1 (dark), LZ2 (rural), or LZ3 (urban).

Regional

County Ordinance

Chapter 83.07 regulates glare, outdoor lighting, and night sky protection. For instance, outdoor lighting of commercial or industrial land uses in the Valley Region must be fully shielded to preclude light pollution or light trespass. Lighting fixtures used to illuminate a new off-site sign and exterior illuminated on-site signs in the Mountain and Desert regions are required to be mounted on the top of the sign structure and must comply with the shielding requirements specified in detail in the County Code. The purpose of Chapter 83.07 is to encourage outdoor lighting practices and systems that will minimize light pollution, glare, and light trespass; conserve energy and resources while maintaining nighttime safety, visibility, utility, and productivity; and curtail the degradation of the nighttime visual environment.

Local

Chino General Plan

The Chino General Plan, updated in 2010, provides the framework for the City's physical, economic, social, and environmental development and addressing all geographic areas in the City, as well as those areas that surround the City that may be served by the City in the future. The Chino General Plan contains numerous policies aimed at preserving the visual character and quality of the City. The Chino General Plan policies and its SOI that are applicable to the proposed project[1] are as follows:

Policy CC-1.1 P1 New development projects shall be approved only if they meet the design principles set forth in this Community Character Element and in any detailed design guidelines that may be approved by the Planning Commission or City Council.

Policy CC-1.1 P2 All new development and redevelopment shall adhere to the basic principles of high-quality community design as described in this Element.

Policy CC-1.1 P5 Lighting on private and public property should be designed to provide safety, while minimizing light spillage to adjacent properties and the night sky.

Policy CC-1.1 P6 Signs should enhance and be compatible with the character of commercial areas within the City, and should not be designed to detract from the visual environment of the City. Billboards shall not be permitted.

Policy CC-2.1 P2 New development should preserve, restore, rehabilitate, reuse, and maintain existing buildings that have historic character or other community value.

Policy CC-2.1 P3 New multi-family housing shall be in scale with surrounding residential neighborhoods and shall feature similar setbacks, complementary building arrangements, and patterns that avoid overwhelming building scale and visual obstructions.

Policy CC-2.1 P4 New single-family housing shall be designed to be compatible with adjacent neighborhoods. Considerations such as building height, size, and setbacks shall be

[1] These policies are not a complete listing of all policies contained in the General Plan; those policies that would be most applicable to the proposed project are included here.

taken into consideration in order to minimize privacy impacts to adjacent homes. The scale of the new homes should not overwhelm adjacent homes.

Policy CC-2.1 P5 Additions to single-family homes shall be architecturally compatible with the existing structure, as well as the neighborhood. The height and size of the addition should be similar to the scale of other homes in the neighborhood, and the addition should respect the privacy of homes on adjacent lots.

Policy CC-2.3 P1 Ensure that private development adjacent to City entryways is compatible with entryways, and reflects a high-quality image of the City.

Policy CC-3.2 P1 New developments shall include a variety of architectural styles in each neighborhood and within each block.

Policy CC-3.2 P4 Multi-family housing design shall be in scale with or transition in scale from adjoining or adjacent single-family areas through the use of similar setbacks, complementary building arrangements and architecture, gradual changes to building heights, buffer yards and the avoidance of overwhelming building scale and visual obstructions.

Policy CC-3.2 P5 Multi-family housing shall generally front on a public street with varying setbacks to provide visual interest, opportunities for transitional landscaping, and varying shadow patterns.

Policy CC-3.2 P6 The exterior of residential buildings shall be varied and articulated to provide visual interest to the streetscape.

Policy CC-3.2 P7 The exterior of residential buildings shall be of the highest architectural design and construction quality, with attention to detail in both design and construction.

Policy CC-3.2 P8 Infill development, secondary residential units, and multifamily housing shall be consistent in scale and character with existing neighborhoods.

Policy CC-3.3 P4 Garages for new single-family houses, duplexes, and townhouses should be subordinate in visual importance to the house itself, especially the entry. This shall be achieved by locating garages toward the back of properties, constructing alleys, limiting the width of the garage to two car spaces, building garages as separate structures from the house, requiring garages to be set back from the front facade of the house, and encouraging the orientation of garage doors at 90 degrees to the street.

Policy CC-4.3 P1 Building setbacks along main streets shall be minimized to the extent that they reflect the desired character of the area.

Policy CC-4.3 P3 Buildings shall include human-scale details such as windows facing the street, awnings, and architectural features that create a visually interesting pedestrian environment.

Policy CC-4.3 P5 Loading facilities for uses requiring delivery from large trucks shall be screened from public view and located away from residential uses.

Policy CC-4.3 P6 Where possible, parking shall be located behind or on the side of buildings to reduce its visual impact.

Policy CC-4.3 P7 Parking lots shall be screened with landscaping or low walls.

Policy CC-4.3 P8 Parking lots shall be landscaped, including shade trees, to create an attractive pedestrian environment and reduce the impact of heat islands.

Policy CC-4.3 P9 Direct and safe pedestrian connections between parking lots and buildings shall be provided, through the use of decorative paving, bollards, landscaping, lighting, or other distinctive features.

Policy CC-4.4 P3 Whenever possible, the City shall require street trees to be planted in linear planting beds rather than tree wells in order to support long-living healthy trees.

Policy CC-4.4 P4 The City shall work with developers to make every effort to save existing large trees, even if they are within proposed rights-of-way.

Policy CC-4.4 P6 Landscaping for all development types shall be designed and maintained at a high quality.

Policy CC-5.1 P1 The City shall design new city-owned buildings in the Civic Center to enhance the existing urban pattern of development. A variety of styles are encouraged, so long as they fit within the overall set of themes associated with buildings in the Civic Center.

Policy CC-5.2 P1 The City shall design new public buildings to be architecturally distinctive and constructed with high-quality materials. Where the City is not the direct developer of the new building, the City shall work with the property owner to encourage these qualities.

Policy CC-6.1 P1 New development should not obstruct, detract from or negatively affect views of the San Gabriel Mountains to the north and the Chino Hills to the south. These views are an integral part of the City's geographic space and allow residents to develop a sense of place unique to Chino.

Policy CC-6.1 P2 New development should preserve views of the surrounding environment through building design and orientation.

City of Chino Municipal Code

In addition to the existing Chino General Plan, the City of Chino's Municipal Code regulates the form and character of development in the City through the Zoning and Subdivision Ordinances.

Zoning Ordinance

The purpose of the Zoning Ordinance (Chino Municipal Code Title 20) is to provide specific requirements for development in the City to achieve the general arrangement of land uses identified in the General Plan. Among the primary objectives of the Zoning Ordinance are the regulation of building form, placement, and density, and the provision of sufficient parking and open spaces in conjunction with development.

Subdivision Ordinance

The Subdivision Ordinance (Chino Municipal Code Title 19) ensures the orderly development of lands within the incorporated City. The ordinance also provides standards for surveying, design, and construction and installation of relevant infrastructure.

Project Impact Evaluation

Thresholds of Significance

The following thresholds of significance are based on the 2012 CEQA Guidelines Appendix G. For purposes of this EIR, implementation of the San Bernardino County Regional GHG Reduction Plan might have a significant adverse impact on aesthetics if it would do any of the following:

- Have a substantial adverse effect on a scenic vista
- Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway
- Substantially degrade the existing visual character or quality of the site and its surroundings
- Create a new source of substantial light or glare that would adversely affect day or nighttime views in the area

Analytic Method

The following analysis takes into account the attribute of aesthetics or visual character, which pertains to aspects of the visual character of existing development and of the City, such as architecture, color, design, décor, mass, and height. The inherent subjectivity of issues and values of visual character creates a challenge in arriving at a conclusive determination of what constitutes a "significant impact" for the purposes of CEQA. Impacts regarding visual character typically include changes to the style or ambiance of a community, the insertion of a prominent feature that changes the original visual character of an area, or the elimination of a significant natural feature (or open space).

Effects Not Found to Be Significant

Threshold	Would the project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

There are no scenic highways in Chino. The Regional Reduction Plan does not propose new structures or other features that would result in view obstructions or damage scenic resources. Further, the City requires that all projects be reviewed for consistency with the Chino General Plan policies prior to approval. Therefore, any facilities constructed under the Regional Reduction Plan would be evaluated for conformance to these policies to ensure that scenic resources are not adversely affected. The impact would be ***less than significant***. Further mitigation is not required.

Project Impacts and Mitigation Measures

Threshold	Would the project have a substantial adverse effect on a scenic vista?

Impact 4.3.1-1 **Implementation of the proposed project could adversely affect a scenic vista. Implementation of mitigation measures MM4.3.1-1a through MM4.3.1-1c would reduce this impact to *less than significant*.**

Significant scenic vistas within the City include: views of the San Gabriel Mountains to the north and the Chino Hills to the southwest. Chino General Plan Policies CC-6.1 P1 and P2 protect these scenic views.

Further, the City requires that all projects be reviewed for consistency with the Chino General Plan policies prior to approval.

However, one potential impact would be renewable energy generation facilities that could obstruct scenic views even if they conform to the scale and massing requirements in the development review standards and approval process as part of the Chino General Plan policies shown in Policies CC-6.1 P1 and P2. Renewable generation facilities could adversely affect the scenic view of the area by introducing numerous man-made structures into a visual vista setting, a potentially significant impact. To reduce this potential impact, the following mitigation measures shall be implemented:

MM4.3.1-1a *Renewable energy generating facilities shall be placed or constructed below any major ridgeline when viewed from any designated scenic corridor as identified in the Chino General Plan.*

MM4.3.1-1b *Renewable energy generating facilities shall not be:*

- *Located within a scenic corridor as identified in the Chino General Plan*
- *Located in an area that would substantially obstruct views of adjacent property owners*
- *Allowed in areas where prohibited by the Alquist-Priolo Earthquake Fault Zoning Act, the terms of any easement, or the listing of the proposed site in the National Register of Historic Places or the California Register of Historical Resources, or on the City's Historic Inventory*

MM4.3.1-1c *Renewable energy generating facilities shall be limited to a height of 80 feet on parcels between one and 5 acres, and limited to a height of 100 feet on parcels greater than 5 acres.*

Implementation of mitigation measures MM4.3.1-1a through MM4.3.1-1c would reduce potential adverse impacts from energy systems in open space areas on scenic views by limiting structure heights and restricting locations such that views would not be obstructed. In addition, any future facilities under the San Bernardino County Regional GHG Reduction Plan would be evaluated for conformance to these policies to ensure that scenic views are not adversely affected. The impact would be ***less than significant***.

Threshold	Would the project substantially degrade the existing visual character or quality of the site and its surroundings?

Impact 4.3.1-2 **Implementation of the proposed project could degrade the visual character or quality of the City. Implementation of mitigation measures MM4.3.1-2a through MM4.3.1-2f would reduce this impact to *less than significant*.**

The Regional Reduction Plan does not propose specific development. Rather, it encourages densification in the Downtown and along transit corridors, furthering the goals of the Chino General Plan. The Regional Reduction Plan establishes policies that encourage energy-saving retrofits to existing buildings and incorporation of energy-generating components in new construction, such as solar arrays. These structures would likely be visible to visitors, employees, and residents, and screening would inhibit energy production. In addition, renewable energy generating facilities could be developed in open space areas that would introduce man-made structures into a natural setting. Depending on the size and mass of these energy-generating components, future redevelopment or development could result in degradation of the visual character and quality of an individual site and its surroundings.

Future development that would incorporate renewable energy systems on the building, such as photovoltaic panels, would be required to comply with proposed policies that regulate the design of new buildings as well as protect the existing visual quality of the City.

Community Character Element Goal CC-1 calls for high standards of community design in Chino. Policy P1 under Objective CC-2.1 (written in this document as Policy CC-2.1 P1) requires high-quality infill development, and Policy CC-2.1 P3 calls for new multi-family development to be designed in scale with surrounding residential neighborhoods. Policy CC-3.2 P7 calls for the exterior of residential buildings to be of the highest architectural design and construction quality. Policy CC-3.2 P8 calls for infill development, secondary residential units and multifamily housing to be consistent in scale and character with existing neighborhoods. In addition, all development or redevelopment projects would undergo further environmental and design review on a project-by-project basis to ensure that the visual quality of the surrounding environment is not substantially compromised.

The City has also adopted design guidelines for industrial and residential development to guide developers, architects and other design professionals in understanding the City's objective of providing for well-designed, attractive, quality industrial and residential development. The guidelines complement the City's development regulations and identify key architecture and site design elements that are important to the City. They also provide examples of desirable design methods and features. The City requires that industrial project sites are designed so that areas used for loading, outdoor storage (where allowed), and other potentially unsightly areas are screened from public view. By applying design guidelines proposed for new architecture to the rehabilitation of existing architecture, the entire neighborhood, over time, will eventually be unified into a cohesive whole that accommodates diversity of forms, follows guidelines for the use of color and materials, and therefore, reinforces district identity while minimizing visual clutter. The combination of architectural diversity and environmental sensitivity is intended to provide the City with a comfortable environment for City residents.

It is also possible that photovoltaic or wind energy systems could be installed in existing residential neighborhoods as an accessory structure to an existing residence which could also result in an adverse change in the visual character and quality of the site. Land use designations under the Chino General Plan include open space and several residential categories ranging from Residential 1 (lowest density) to Residential 20 (highest density). As previously discussed regarding Impact 4.3.1-1 projects in scenic areas could have an impact on a scenic vista. However, the implementation of mitigation measures MM4.3.1-1a through MM4.3.1-1c would reduce those impacts to less than significant. That same mitigation would also be applied here to protect the visual character and quality of the area. To ensure that any proposed renewable energy generating facility in open space areas would not adversely affect visual character or quality, the following mitigation measures shall be implemented:

MM4.3.1-2a *The minimum setback from any nonresidential property line shall be equal to the renewable energy system height.*

MM4.3.1-2b *The minimum setback of a commercial-scale renewable energy system from any residential property line shall be at least 1,500 feet.*

MM4.3.1-2c *On open space, only one renewable energy system unit per 10 acres shall be allowed. Units shall be installed with at least 240 feet separation from each other. If the units are to 50 feet in height, a*

maximum of two units may be installed for every 5 acres. For every additional 5 acres, one additional unit may be added not to exceed a maximum of five units and the separation between the units may be reduced to twice the height of the systems.

To ensure that any proposed renewable energy generating facility in residential areas would not adversely affect visual character or quality, the following mitigation measures shall be implemented:

MM4.3.1-2d *Renewable energy generating facilities not incorporated into the building, or part of the parking structure, or considered an accessory structure to an existing residence shall be prohibited in urbanized residential neighborhoods.*

MM4.3.1-2e *Residential properties less than 5 acres shall be limited to one accessory wind energy system that shall not exceed the height of the zone in which it is located.*

MM4.3.1-2f *Residential properties that are 5 acres and more shall be limited to two accessory wind energy systems that shall not exceed the height of the zone in which it is located.*

With implementation of the identified mitigation, potential adverse impacts to visual character or quality of energy systems developed in open space areas and accessory wind energy systems in urbanized residential areas would be reduced to less than significant. Energy retrofits on existing structures and installation of solar arrays on rooftops of buildings would not substantially degrade the visual quality or character of the City, as future projects are required to comply with all City ordinances and relevant specific plans, including consistency with the Chino General Plan policies and city adopted design guidelines. On a program level, this impact would be ***less than significant***.

Threshold	Would the project create a new source of substantial light or glare that would adversely affect day or nighttime views in the area?

Impact 4.3.1-3 **Implementation of the proposed project could result in new sources of substantial light or glare that could adversely affect day or nighttime views in the area. Implementation of mitigation measures MM4.3.1-3a and MM4.3.1-3b would reduce this impact to *less than significant*.**

The City is primarily built out and a significant amount of ambient light and glare from urban uses already exists. The energy-generating structures that could be constructed under the Regional Reduction Plan would not generally include lighting and, therefore, there would be no increased sources of light as a result of implementation of the proposed project. However, it is possible that increased glare could result from energy-generating structures. Glare results from sharply reflected light caused by sunlight or artificial light reflecting from highly finished surfaces such as window glass or brightly colored surfaces. The types of land uses that are typically sensitive to excess glare include homes, hospitals, senior housing, and other types of uses where excessive glare may disrupt sleep. In addition, glare may interfere with the vision of drivers. Implementation of the Regional Reduction Plan could result in energy-efficient or energy-generating rooftop structures such as photovoltaic arrays that could introduce substantial new sources of glare. Rooftop solar panels, to be effective, must be oriented to maximize solar radiation absorption. If these structures were to be constructed adjacent to residential uses or sensitive receptors, the impact from increased glare would be potentially significant.

Solar panels are designed to maximize sunlight absorption and are generally constructed of dark, light-absorbing materials and are composed of a minimum of reflective surfaces. Therefore, it is not anticipated that solar arrays would result in an increased amount of glare even if they were oriented in such a way as to face sensitive receptors or drivers. Other energy-generating structures such as wind turbines could consist of reflective materials that could increase localized glare.

The Chino General Plan policies related to quality of design and maintenance of existing neighborhood character are contained in the Land Use Element. Although none of these policies specifically addresses light and glare effects, and it is unknown at this time where or how many such structures would be constructed under the Regional Reduction Plan, each discretionary project pursuant to the Regional Reduction Plan would be required to undergo individual design and environmental review to develop appropriate mitigation measures particular to each project site. In addition, the following mitigation measure shall be implemented for all discretionary projects under the Regional Reduction Plan to reduce glare impacts:

MM4.3.1-3a *All proposed energy-generating structures shall be constructed utilizing non-reflective materials to the maximum extent feasible. If a reflective material is used, appropriate shielding shall be placed or the structure relocated to reduce the amount of visible glare. The City shall review all discretionary projects prior to issuance of building permits to ensure that appropriate shielding and placement of such structures are included in design plans.*

MM4.3.1-3b *All proposed energy-generating structures in open spaces areas shall not be lighted unless required by code or regulation.*

With implementation of mitigation measures MM4.3.1-3a and MM4.3.1-3b, impacts of glare from implementation of the proposed project would be reduced to less than significant by ensuring that energy-generating structures do not pose a safety risk to drivers or adversely affect sensitive receptors.

Cumulative Impacts

Threshold	Would the project have a substantial adverse effect on a scenic vista?

The geographic context for an analysis of cumulative impacts on a scenic vista is the City and the view seen from beyond the City, as existing scenic views are confined to this geographic area. The Chino General Plan contains Policies CC-6.1 P1 and P2, which protect scenic views. Further, The City requires that all projects be reviewed for consistency with the Chino General Plan policies prior to approval. Therefore, future development in the City would not likely result in a significant adverse impact on scenic views. Implementation of project-level mitigation measures MM4.3.1-1a through MM4.3.1-1c would reduce this impact to less than significant by establishing maximum tower height, prohibiting development on major ridgelines viewable from any designated scenic corridor as defined in the Chino General Plan, and prohibiting location of facilities that would substantially obstruct scenic views of adjacent property owners. Therefore, the proposed project would not make a cumulatively considerable contribution to any significant cumulative impact on scenic views. The project's ***cumulative impact would be less than significant***.

Threshold	Would the project substantially degrade the existing visual character or quality of the site and its surroundings?

Due to the City's location where certain areas are bounded by mountains and hills, the geographic context for this cumulative analysis is the City and the view seen from beyond the City as the affected area would not be visible from surrounding areas nor would the Regional Reduction Plan have an influence on surrounding areas. Since the Regional Reduction Plan covers the entire City, cumulative impacts would be same as the impacts identified above for the proposed project, and would be potentially significant if substantial development occurs in open space areas. All future development would be required to comply with proposed policies that regulate the design of new buildings as well as protect the existing visual quality of the City. In addition, implementation of project-level mitigation measures MM4.3.1-2a through MM4.3.1-2f would ensure that the proposed project would not make a cumulatively considerable contribution to adverse impacts relating to visual character and quality. Therefore, on a cumulative level, implementation of the proposed project would not substantially degrade the visual quality or character of the City, and the ***cumulative impact would be less than significant***.

Threshold	Would the project create a new source of substantial light or glare that would adversely affect day or nighttime views in the area?

Impacts from light and glare are generally localized and site-specific; therefore, the context for an analysis of cumulative impacts from light and glare would be geographically limited to the City. Cumulative development in this geographic area has resulted in moderate to high levels of ambient light and glare typical of urban areas in the more developed areas, and lower levels of light and glare near City boundaries. Future development in this geographic context would further increase sources of light and glare, which could be potentially significant if future projects introduce light and glare into areas of the City that have lower levels of ambient lighting. The proposed project would not result in new sources of substantial light, since future energy-generating structures would generally not be lighted. Therefore, the proposed project would not make a cumulatively considerable contribution to any cumulative light impact. The proposed project could result in localized increases sources of glare. However, implementation of project-level mitigation measures MM4.3.1-3a and MM4.3.1-3b would reduce any localized glare impact to less than significant and the project would not make a cumulatively considerable contribution to any cumulative glare impact. The ***cumulative impact would be less than significant***.

References

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———. 2010b. *City of Chino General Plan Draft Environmental Impact Report*, January.

San Bernardino Associated Governments (SANBAG). 2012. *San Bernardino County Regional Greenhouse Gas Reduction Plan*. Draft. Prepared by ICF International, December.

4.3.2 Agriculture/Forestry Resources

This section of the EIR analyzes the potential environmental effects on agriculture/forestry resources in the City of Chino from implementation of the Regional Reduction Plan. Data for this section were taken from the Chino General Plan (July 2010a) and associated environmental impact report (January 2010b). Full reference-list entries for all cited materials are provided at the end of this section.

No comment letters addressing agriculture/forestry resources were received in response to the notice of preparation (NOP) circulated for the Regional Reduction Plan.

Environmental Setting

As set forth in CEQA Guidelines Section 15125(a) this section describes the physical environmental conditions in the City and SOI at the time the environmental analysis commenced. It constitutes the baseline physical conditions by which the City of Chino will determine whether an impact to agricultural resources is significant.

Designated Agricultural Lands

The State of California designates land into eight categories of land use designation based on soil quality and existing agriculture uses to produce maps and statistical data. These maps and data are used to help preserve productive farmland and to analyze impacts on farmland. Prime Farmland, Farmland of Statewide Importance, Unique Farmland, and Farmland of Local Importance are all Important Farmland and are collectively referred to as Important Farmland in this EIR. The highest rated Important Farmland is Prime Farmland. These maps are created and maintained by the California Department of Conservation Farmland Mapping and Monitoring Program (FMMP). Additional information on the FMMP is provided in this section under "Regulatory Framework," "State." The following summarizes the various lands mapped by the State.

- **Prime Farmland**—This has the best combination of physical and chemical features and is able to sustain long-term agricultural production. The land has the soil quality, growing season, and moisture supply needed to produce sustained high yields and it must have been used for irrigated agricultural production at some time during the 4 years prior to the mapping date.
- **Farmland of Statewide Importance**—This is similar to Prime Farmland but with minor shortcomings, such as greater slopes or less ability to store soil moisture. The land must have been used for irrigated agricultural production at some time during the 4 years prior to the mapping date.
- **Unique Farmland**—This has lesser-quality soils and is used for the production of the state's leading agricultural crops. The land is usually irrigated, but may include nonirrigated orchards or vineyards, as found in some climatic zones in California. The land must also have been cropped at some time during the 4 years prior to the mapping date.
- **Farmland of Local Importance**—This is of importance to the local agricultural economy, as determined by each county's board of supervisors and a local advisory committee.

- **Grazing Land**—This has existing vegetation that is suited to the grazing of livestock. This category was developed in cooperation with the California Cattlemen's Association, University of California Cooperative Extension, and other groups interested in the extent of grazing activities. The minimum mapping unit for Grazing Land is 40 acres.
- **Urban and Built-up Land**—This land is occupied by structures with a building density of at least one unit to 1.5 acres, or approximately six structures to a 10-acre parcel. This land is used for residential, industrial, commercial, construction, institutional, public administration, railroad, and other transportation yards, cemeteries, airports, golf courses, sanitary landfills, sewage treatment, water control structures, and other developed purposes.
- **Other Land**—This land is not included in any other mapping category. Common examples include low density rural developments; brush, timber, wetland, and riparian areas not suitable for livestock grazing; confined livestock, poultry, or aquaculture facilities; strip mines or borrow pits; and water bodies smaller than 40 acres. Vacant and nonagricultural land surrounded on all sides by urban development and greater than 40 acres is mapped as Other Land.
- **Water**—These are areas with perennial water bodies with an extent of at least 40 acres.

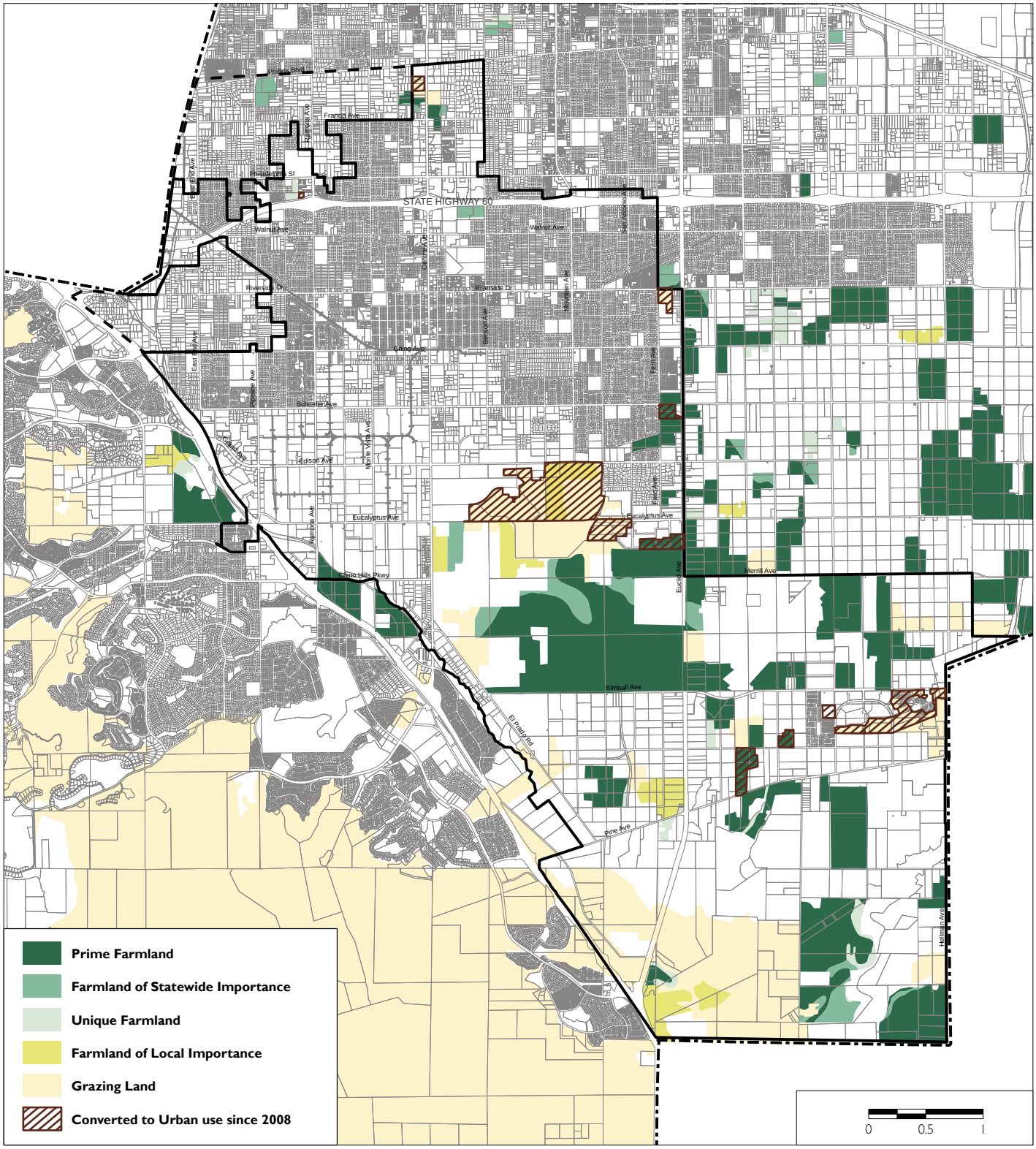
The California Department of Conservation (CDC) considers portions of Chino to be important agricultural resources. These areas are shown in Figure 4.3.2-1 (Important Farmland). According to the 2008 CDC farmland data, there are a total of 2,527 acres of Prime Farmland and Farmland of Statewide Importance. These two categories account for the majority of important farmland within the City limits. A summary of the acres by farmland classification is presented in Table 4.3.2-1 (Important Farmland in Chino).

Table 4.3.2-1 Important Farmland in Chino

Type	*Acres in Chino*	*Percent of City Area*
Farmland of Statewide Importance	275	1%
Prime Farmland	2,252	11%
Farmland of Local Importance	335	2%
Unique Farmland	89	0%
Grazing Lands	1,977	10%
Total	***4,928***	***24%***

SOURCE: California Department of Conservation, Farming Mapping and Monitoring Program (2008).

Most of the areas identified as Prime Farmland or Farmland of Statewide Importance are located in the southern and eastern parts of the City, where agriculture is most concentrated. A significant percentage of this land is located within the boundaries of the CIM and the Chino Airport where limited agricultural operations do remain as administered by the land owners. Since the CDC last classified the farmland in 2008, some of this farmland has been lost, as some areas have been converted to urban uses. A total of approximately 504 acres have been converted to urban uses: approximately 82 acres of Prime Farmland, 1 acre of Unique Farmland, 83 acres of Farmland of Local Importance and 338 acres of Grazing Land. These areas are located in The Preserve, East Chino and College Park and are indicated with hatching on Figure 4.3.2-1.



Source: City of Chino General Plan Draft Environmental Impact Report, January 2010.

NORTH
SCALE IN MILES

Figure 4.3.2-1
Important Farmland

ATKINS

Regulatory Framework

Federal

There are no federal regulations pertaining to agricultural resources.

State

Williamson Act

The California Land Conservation Act of 1965, or the Williamson Act, allows city or county governments to preserve agricultural land or open space through contracts with landowners. The NMC has areas that are currently agriculture preserves under contract with San Bernardino County through the Williamson Act of 1965. Contracts last 10 years and are automatically renewed unless a notice of nonrenewal is issued. The preservation of agricultural land through Williamson Act contracts today in Chino is meant to discourage premature and unnecessary conversion to urban uses. Landowners benefit from the contract by receiving property tax assessments that are much lower than the normal rates, based on farming and open space land values rather than urban full market values. To prevent local governments from losing tax revenue on these lands, the Open Space Subvention Act of 1971 gives local governments an annual subvention. Once the NMC annexed to the City, Chino became the administrating entity for the Williamson Act contracts. Under the Act, either the land owner or the planning jurisdiction (the City) has the ability to submit the property for nonrenewal. Property owners in this area with Williamson Act contracts have filed for nonrenewal because of the declining profits from agriculture in the area and the potential development of these lands with nonagricultural uses. Current nonrenewed contracts would expire between 2009 and 2017, as shown in Figure 4.3.2-2 (Williamson Act Contract Lands).

The California Department of Conservation Farmland Mapping and Monitoring Program (FMMP) was established in 1982 to track changes in agricultural land use and to help preserve areas of Important Farmland. It divides the state's land into eight categories of land use designation based on soil quality and existing agriculture uses to produce maps and statistical data. The maps and data are used to help preserve productive farmland and to analyze impacts on farmland.

Regional

Southern California Agricultural Land Foundation Preserves

The San Bernardino County Agricultural Land Preserves within the City were managed by the Southern California Agricultural Land Foundation (SoCALF) until 2006, when the County of San Bernardino took over management of these parcels. Hence these areas are still referred to as SoCALF Preserves in the City. The SoCALF Preserves were established and maintained with funds from the 1988 Park Bond Act regulations. The San Bernardino County Agriculture Land Preserve once covered about 15,000 acres, mainly in southern Ontario and Chino. However, much of this area is now being developed by both cities. An amount of $20 million was paid to the County of San Bernardino from the State of California to establish and fund these lands as long as they remained in agricultural use within the San Bernardino County Agriculture Land Preserve (California Public Resources Code Sections 5905–5907). When the SoCALF Preserves are no longer being used for agricultural purposes, these funds must be returned to

the state or used to purchase property of equal size and similar u se within the San Bernardino County Agriculture Land Preserve. Approximately 200 acres are designated as SoCALF Preserves in the NMC.

Local

Chino Right to Farm Ordinance

The Chino Right to Farm policy (Zoning Ordinance Policy 20.07.020) is intended to maintain the continued viability of agricultural operations in Chino. The Right to Farm Policy addresses the potential for conflicts between agricultural operations and adjacent nonagricultural land uses by limiting the circumstances in which such operations may be deemed to constitute a nuisance.

Project Impact Evaluation

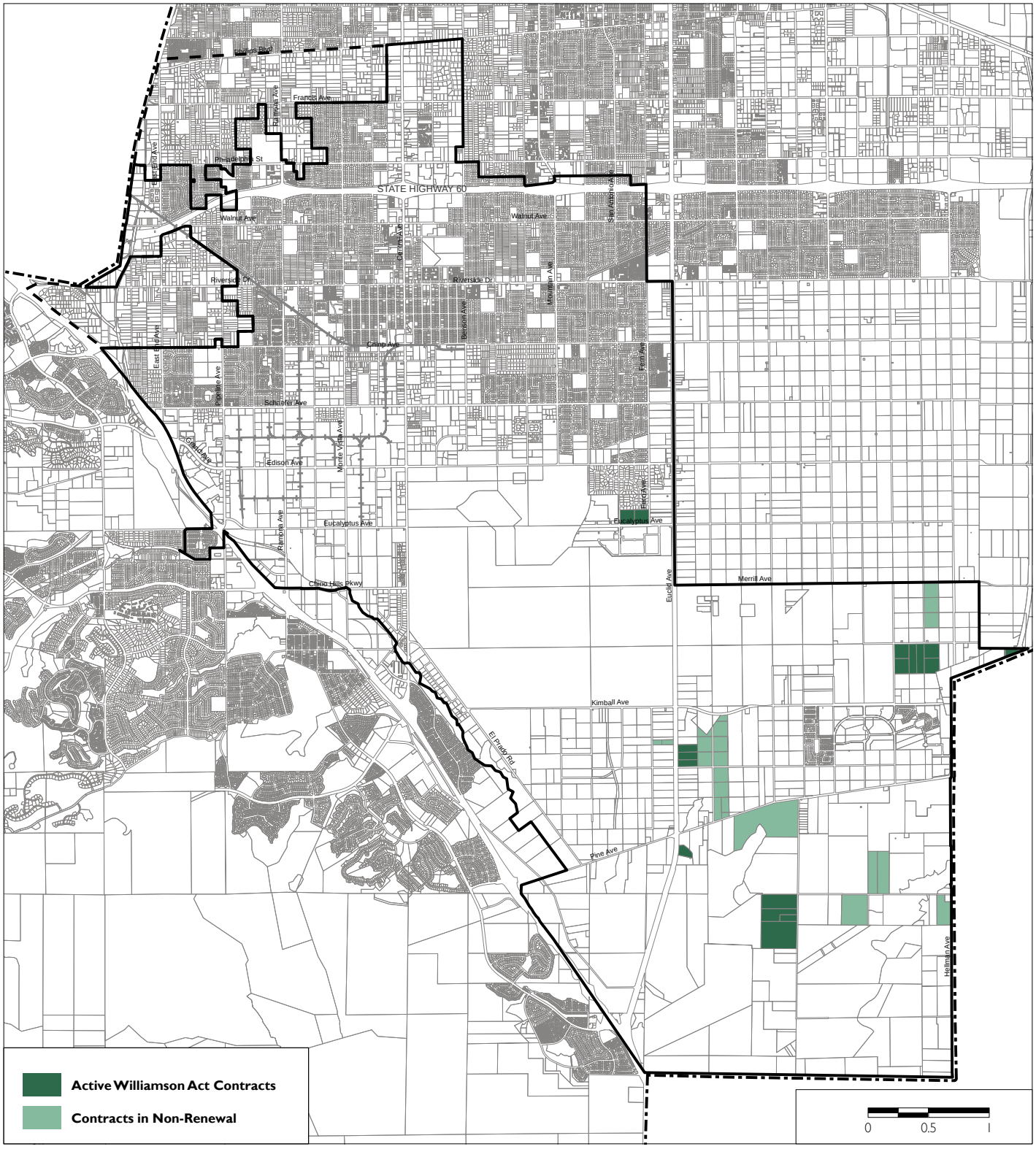
Thresholds of Significance

The following thresholds of significance are based on the 2012 CEQA Guidelines Appendix G. In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. For purposes of this EIR, implementation of the San Bernardino County Regional GHG Reduction Plan might have a significant adverse impact on agriculture/forestry resources if it would do any of the following:

- 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 nonagricultural use
- Conflict with existing zoning for agricultural use or with a Williamson Act contract
- 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))
- Result in the loss of forest land or conversion of forest land to nonforest use
- Involve other changes in the existing environment that, due to their location or nature, could result in conversion of Farmland to nonagricultural use or conversion of forest land to nonforest use

Analytic Method

The following analysis reviews potential impacts to agricultural resources within the City of Chino.



Source: City of Chino General Plan Draft Environmental Impact Report, January 2010.

NORTH
SCALE IN MILES

Figure 4.3.2-2
Williamson Act Contract Lands

ATKINS

Effects Not Found to Be Significant

Threshold	Would the project convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to nonagricultural use?

Implementation of the Regional Reduction Plan includes densification and development of transit oriented development near transit stations in developing the Regional Sustainable Communities Strategy (SCS) and commercial/residential mixed-use development within the urbanized portions of Chino, but these areas near transit or urbanized mixed-use development do not include changing any existing agricultural lands. In addition, the Regional Reduction Plan includes energy efficiency retrofits of existing buildings, but does not convert any agricultural use to a nonagricultural use. The Regional Reduction Plan includes agricultural-related reduction measures to capture and use methane emissions at large dairies, but implementation of these measures would not convert agricultural lands to nonagricultural uses. In addition, the Regional Reduction Plan includes renewable energy generation facilities. The renewable energy generation facilities on existing agricultural land would be complementary to the agricultural use and not be the primary use on agricultural land, such as a solar or wind farm. As an example, a large dairy might include photovoltaic (PV) solar panels on the rooftops and a methane capture system that collects methane as a renewable fuel. However PV solar and the methane capture system described in this example would not change or covert agricultural land to non-agricultural use or in any way degrade the dairy farm as an agricultural use. Therefore, implementation of the proposed Regional Reduction Plan would not convert any of the existing 2,616 acres of agricultural use to nonagricultural use, which includes all California Resource Agency designated Prime Farmland, Unique Farmland, and Farmland of Statewide Importance. Therefore, there would be ***no impact***. Further analysis is not required.

Threshold	Would the project conflict with existing zoning for agricultural use or with a Williamson Act contract?

Implementation of the Regional Reduction Plan includes densification and development near transit stations and within urbanized portions of Chino, but does not include conversion of agricultural land that would conflict with existing Williamson Act Contracts. The Regional Reduction Plan includes agricultural-related reduction measures to capture and use methane emissions at large dairies, but implementation of these measures would not conflict with existing Williamson Act Contracts. Therefore, there would be ***no impact***. Further analysis is not required.

Threshold	Would the project conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?

The City of Chino is urbanized and does not contain areas classified as timberland, zoned as timberland, or considered forested with timber. Therefore, there would be ***no impact***. Further analysis is not required.

Threshold	Would the project result in the loss of forest land or conversion of forest land to nonforest use?

The City of Chino is urbanized and does not contain forest land. Therefore, there would be ***no impact***. Further analysis is not required.

Threshold	Would the project involve other changes in the existing environment that, due to their location or nature, could result in conversion of Farmland to nonagricultural use or conversion of forest land to nonforest use?

Implementation of the Regional Reduction Plan includes densification and development near transit stations and within urbanized portions of Chino, increased sources of renewable energy sources, and energy efficiency retrofits of existing buildings within the City. The reduction measures within the Regional Reduction Plan related to renewable energy sources focus on including renewable energy sources within existing and future development. This allows for the implementation of renewable energy sources within agricultural uses, but within the context of the agricultural use. As an example, a large dairy may include methane capture and burn the methane to generate electricity. However, this increase in renewable energy fits within the context of the agricultural use and does not result in the conversion of any Important Farmland. Therefore, there would be ***no impact***. Further analysis is not required.

Cumulative Impacts

As discussed above, implementation of the Regional Reduction Plan would include reduction measures that encourage densification of transit oriented land uses near transit stations. In addition, renewable energy sources including renewable energy generation that complements the agricultural use may occur on agricultural lands. However, implementation of the Regional Reduction Plan will not convert agricultural land uses, timberlands, or forest lands to nonagricultural or nonforest land uses within the City of Chino. Because there are no agricultural or forest lands in neighboring communities and cities near the transit stations or urbanized areas in the City of Chino, and implementation of the Regional Reduction Plan will not convert agricultural uses, timberlands, or forest lands within the City to nonagricultural, timberlands or forest land uses that may be adjacent to agricultural uses timberlands, or forest lands in neighboring communities and cities, implementation of the Regional Reduction Plan will not impact adjacent agricultural land uses, timberlands, or forest lands in neighboring communities and cities. The project's ***cumulative impact would be less than significant***. No mitigation is required.

References

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San Bernardino, County of. 2009. *San Bernardino County Land Preserves (formerly managed by the Southern California Agricultural Land Foundation, SoCALF)*, July.

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4.3.3 Air Quality

This section of the EIR analyzes the potential environmental effects on air quality in the City of Chino from implementation of the Regional Reduction Plan. Data for this section were taken from various sources, including the South Coast Air Quality Management District's (SCAQMD) Air Quality Management Plan (2012 AQMP), SCAQMD's CEQA Air Quality Handbook and online updates (accessed 2012), SCAQMD air monitoring data, the Chino General Plan (July 2010a) and associated environmental impact report (January 2010b). Full reference-list entries for all cited materials are provided at the end of this section.

No comment letters addressing air quality were received in response to the notice of preparation (NOP) circulated for the Regional Reduction Plan.

Environmental Setting

The portion of the proposed project under jurisdiction of the City of Chino is located within the South Coast Air Basin (Basin). The regional climate within the Basin is considered semi-arid and is characterized by warm summers, mild winters, infrequent seasonal rainfall, moderate daytime onshore breezes, and moderate humidity. Climate change within the Basin is influenced by a wide range of emission sources, such as utility usage, heavy vehicular traffic, industry, and meteorology.

The annual average temperature varies little throughout the Basin, ranging from the low to middle 60s, measured in degrees Fahrenheit (°F). With a more pronounced oceanic influence, coastal areas show less variability in annual minimum and maximum temperatures than inland areas. The average low is reported at 48°F and the average high is 78°F (Chino 2010b). All areas in the Basin have recorded temperatures above 100°F in recent years. January is typically the coldest month in this area of the Basin, with minimum temperatures in the 30s.

In contrast to a very steady pattern of temperature, rainfall is seasonally and annually highly variable. Almost all rain falls from November through April. Summer rainfall is normally restricted to widely scattered thundershowers near the coast with slightly heavier shower activity in the east and over the mountains. Rainfall averages around 13 inches per year in the project area.

Wind patterns across the south coastal region are characterized by westerly and southwesterly onshore winds during the day and easterly or northeasterly breezes at night. Wind speed is somewhat greater during the dry summer months than during the rainy winter season.

Between periods of wind, periods of air stagnation may occur, both in the morning and evening hours. Air stagnation is one of the critical determinants of air quality conditions on any given day. During the winter and fall months, surface high-pressure systems over the Basin, combined with other meteorological conditions, can result in very strong, downslope Santa Ana winds. These winds normally continue a few days before predominant meteorological conditions are reestablished. The mountain ranges surrounding the Basin affect the transport and diffusion of pollutants by inhibiting the eastward transport of pollutants. Air quality in the Basin generally ranges from fair to poor and is similar to air

quality in most of coastal southern California. The entire region experiences heavy concentrations of air pollutants during prolonged periods of stable atmospheric conditions.

In conjunction with the two characteristic wind patterns that affect the rate and orientation of horizontal pollutant transport, there are two similarly distinct types of temperature inversions that control the vertical depth through which pollutants are mixed. These inversions are the marine/subsidence inversion and the radiation inversion. The height of the base of the inversion at any given time is known as the "mixing height." The combination of winds and inversions are critical determinants in leading to the highly degraded air quality in summer and the generally good air quality in the winter in the project area.

Air Pollutants of Concern

Criteria Air Pollutants

The pollutants emitted into the ambient air by stationary and mobile sources are regulated by federal and state law. These are known as criteria air pollutants and are categorized into primary and secondary pollutants. Primary air pollutants are those that are emitted directly from sources. Carbon monoxide (CO), volatile organic compounds (VOC), nitrogen oxides (NO_X), sulfur dioxide (SO_2), coarse inhalable particulate matter (PM_{10}), fine inhalable particulate matter ($PM_{2.5}$), and lead (Pb) are primary air pollutants. VOC and NO_X are criteria pollutant precursors and go on to form secondary criteria pollutants through chemical and photochemical reactions in the atmosphere. Ozone (O_3) and nitrogen dioxide (NO_2) are the principal secondary pollutants.

Presented below is a description of each of the primary and secondary criteria air pollutants and their known health effects. Other pollutants, such as carbon dioxide, a natural by-product of animal respiration that is also produced in the combustion process, have been linked to such phenomena as global warming (see Section 4.3.7 [Greenhouse Gas Emissions]).

Carbon monoxide (CO) is a colorless, odorless, toxic gas produced by incomplete combustion of carbon substances, such as gasoline or diesel fuel. The primary adverse health effect associated with CO is interference with normal oxygen transfer to the blood, which may result in tissue oxygen deprivation (SCAQMD 2005).

Volatile organic compounds (VOC) are compounds comprised primarily of atoms of hydrogen and carbon. Internal combustion associated with motor vehicle usage is the major source of hydrocarbons. VOCs are synonymous with reactive organic gases. Other sources of VOC include evaporative emissions associated with the use of paints and solvents, the application of asphalt paving, and the use of household consumer products such as aerosols. Adverse effects on human health are not caused directly by VOC, but rather by reactions of VOC to form secondary pollutants such as ozone (SCAQMD 2005).

Nitrogen oxides (NO_X) serve as integral participants in the process of photochemical smog production. The two major forms of NO_X are nitric oxide (NO) and nitrogen dioxide (NO_2). NO is a colorless, odorless gas formed from atmospheric nitrogen and oxygen when combustion takes place under high temperature and/or high pressure. NO_2 is a reddish-brown irritating gas formed by the combination of NO and oxygen. NO_X acts as an acute respiratory irritant and increases susceptibility to respiratory pathogens (SCAQMD 2005).

NO_2 is a by-product of fuel combustion. The principal form of NO_2 produced by combustion is NO, but NO reacts with oxygen to form NO_2, creating the mixture of NO and NO_2 commonly called NO_X. NO_2 acts as an acute irritant and, in equal concentrations, is more injurious than NO. At atmospheric concentrations, however, NO_2 is only potentially irritating. There is some indication of a relationship between NO_2 and chronic pulmonary fibrosis. Some increase in bronchitis in children (two and three years old) has also been observed at concentrations below 0.3 part per million (ppm). NO_2 absorbs blue light; the result is a brownish-red cast to the atmosphere and reduced visibility. NO_2 also contributes to the formation of PM_{10}, $PM_{2.5}$, and ozone (SCAQMD 2005).

Sulfur dioxide (SO_2) is a colorless, pungent, irritating gas formed by the combustion of sulfurous fossil fuels. Fuel combustion is the primary source of SO_2. At sufficiently high concentrations, SO_2 may irritate the upper respiratory tract. At lower concentrations and when combined with particulates, SO_2 may do greater harm by injuring lung tissue. A primary source of SO_2 emissions is high-sulfur-content coal. Gasoline and natural gas have very low sulfur content and hence do not release significant quantities of SO_2 (SCAQMD 2005).

Particulate matter (PM) consists of finely divided solids or liquids such as soot, dust, aerosols, fumes, and mists. Two forms of fine particulates are now recognized. Inhalable course particles, or PM_{10}, include the particulate matter with an aerodynamic diameter of 10 microns (i.e., 10 one-millionths of a meter or 0.0004 inch) or less. Inhalable fine particles, or $PM_{2.5}$, have an aerodynamic diameter of 2.5 microns (i.e., 2.5 one-millionths of a meter or 0.0001 inch) or less. Particulate discharge into the atmosphere results primarily from industrial, agricultural, construction, and transportation activities. However, wind action on arid landscapes also contributes substantially to local particulate loading. Both PM_{10} and $PM_{2.5}$ may adversely affect the human respiratory system, especially in those people who are naturally sensitive or susceptible to breathing problems (SCAQMD 2005). Diesel particulates are classified by the California Air Resources Board (ARB) as a carcinogen.

Fugitive dust primarily poses two public health and safety concerns. The first concern is that of respiratory problems attributable to the particulates suspended in the air. The second concern is that of motor vehicle accidents caused by reduced visibility during severe wind conditions. Fugitive dust may also cause significant property damage during strong windstorms by acting as an abrasive (much like sandblasting). Finally, fugitive dust can result in a nuisance factor due to the soiling of proximate structures and vehicles (SCAQMD 2005).

Ozone (O_3), or smog, is one of a number of substances called photochemical oxidants that are formed when VOC and NO_X (both by-products of the internal combustion engine) react with sunlight. O_3 is present in relatively high concentrations in the South Coast Air Basin (SCAB), and the damaging effects of photochemical smog are generally related to the concentrations of O_3. O_3 poses a health threat to those who already suffer from respiratory diseases as well as to healthy people. Additionally, O_3 has been tied to crop damage, typically in the form of stunted growth and premature death. O_3 can also be a corrosive, resulting in property damage such as the degradation of rubber products (SCAQMD 2005).

Toxic Air Contaminants

The public's exposure to toxic air contaminants (TACs) is a significant environmental health issue in California. In 1983, the California Legislature enacted a program to identify the health effects of TACs

and to reduce exposure to these contaminants to protect the public health. The Health and Safety Code defines a TAC as "an air pollutant which may cause or contribute to an increase in mortality or in serious illness, or which may pose a present or potential hazard to human health." A substance that is listed as a hazardous air pollutant pursuant to subsection (b) of Section 112 of the federal Clean Air Act (42 United Sates code Section 7412[b]) is a toxic air contaminant. Under state law, the California Environmental Protection Agency (CalEPA), acting through the California ARB, is authorized to identify a substance as a TAC if it determines the substance is an air pollutant that may cause or contribute to an increase in mortality or to an increase in serious illness, or may pose a present or potential hazard to human health.

California regulates TACs primarily through Assembly Bill (AB) 1807 (Tanner Air Toxics Act) and AB 2588 (Air Toxics "Hot Spot" Information and Assessment Act of 1987). The Tanner Air Toxics Act sets forth a formal procedure for California ARB to designate substances as TACs. Once a TAC is identified, California ARB adopts an "airborne toxics control measure" for sources that emit designated TACs. If there is a safe threshold for a substance (a point below which there is no toxic effect), the control measure must reduce exposure to below that threshold. If there is no safe threshold, the measure must incorporate toxics best available control technology to minimize emissions. California ARB has, to date, established formal control measures for 11 TACs, all of which are identified as having no safe threshold.

Air toxics from stationary sources are also regulated in California under the Air Toxics "Hot Spot" Information and Assessment Act of 1987. Under AB 2588, toxic air contaminant emissions from individual facilities are quantified and prioritized by the air quality management district or air pollution control district. High priority facilities are required to perform a health risk assessment and, if specific thresholds are exceeded, are required to communicate the results to the public in the form of notices and public meetings.

Since the last update to the TAC list in December 1999, California ARB has designated 244 compounds as TACs (California ARB 1999). Additionally, the California ARB has implemented control measures for a number of compounds that pose high risks and show potential for effective control. The majority of the estimated health risks from TACs can be attributed to relatively few compounds, the most important being particulate matter from diesel-fueled engines.

In 1998, the California ARB identified particulate emissions from diesel-fueled engines (diesel PM) as a TAC. Previously, the individual chemical compounds in the diesel exhaust were considered as TACs. Almost all diesel exhaust particle mass is 10 microns or less in diameter. Because of their extremely small size, these particles can be inhaled and eventually trapped in the bronchial and alveolar regions of the lung.

In 2000, SCAQMD conducted a study on ambient concentrations of TACs and estimated the potential health risks from air toxics. The results showed that the overall risk for excess cancer from a lifetime exposure to ambient levels of air toxics was about 1,400 in a million. The largest contributor to this risk was diesel exhaust, accounting for 71 percent of the air toxics risk. In 2008, the SCAQMD conducted its third update to their study on ambient concentrations of TACs and estimated the potential health risks from air toxics. The results showed that the overall risk for excess cancer from a lifetime exposure to ambient levels of air toxics was about 1,200 in a million. The largest contributor to this risk was diesel exhaust, accounting for approximately 84 percent of the air toxics risk (SCAQMD 2008).

Existing Ambient Air Quality

Existing levels of ambient air quality and historical trends and projections in the vicinity of the project site and the City of Chino are best documented by measurements made by the SCAQMD. The City is in the central portion of Source Receptor Area (SRA) 33 (San Bernardino Valley [Southwest San Bernardino Valley]). The SCAQMD air quality monitoring station in the SRA 33 that is closest to the City is the Ontario Monitoring Station. However, this station only monitors PM_{10} and $PM_{2.5}$. Consequently, data was supplemented from the Upland Monitoring Station for, NO_2, O_3 and CO, and the Fontana-Arrow Highway Monitoring Station for SO_2. Data from these stations are summarized in Table 4.3.3-1 (Ambient Air Quality Monitoring in the City of Chino). The data show recurring violations of both the state and federal O_3 standards. The data also indicate that the area regularly exceeds the state PM_{10} and federal $PM_{2.5}$ standards. The CO, SO_2, and NO_2 standards have not been violated in the last 5 years at the stations.

Regulatory Framework

Federal

U.S. Environmental Protection Agency and the Federal Clean Air Act

The federal Clean Air Act (CAA) of 1970 and the CAA Amendments of 1971 required the U.S. Environmental Protection Agency (USEPA) to establish National Ambient Air Quality Standards (NAAQS), with States retaining the option to adopt more stringent standards or to include other specific pollutants. These NAAQS standards are the levels of air quality considered safe, along with an adequate margin of safety to protect the public health and welfare. They are designed to protect those sensitive receptors most susceptible to further respiratory distress such as asthmatics, the elderly, very young children, people already weakened by other disease or illness and persons engaged in strenuous work or exercise. Healthy adults can tolerate occasional exposure to air pollutant concentrations considerably above these minimum standards before adverse effects are observed.

The CAA (and its subsequent amendments) requires each state to prepare an air quality control plan referred to as a State Implementation Plan (SIP). The CAA Amendments dictate that states containing areas violating the NAAQS must revise their SIPs to include extra control measures to reduce air pollution. California's SIP includes strategies and control measures to attain the NAAQS by deadlines established by the CAA. The SIP is periodically modified to reflect the latest emissions inventories, plans and rules and regulations of the various agencies with jurisdiction over the State's air basins. The USEPA has the responsibility to review all SIPs to determine if they conform to the requirements of the CAA.

Table 4.3.3-1 Ambient Air Quality Monitoring in the City of Chino

Pollutant/Standard	*Number of Days Air Quality Standards Were Exceeded per Year and Maximum Level of Concentrations in Each Year*				
	2007	*2008*	*2009*	*2010*	*2011*
Ozone (0_3)[a]					
State 1-Hour ≥ 0.09 ppm	32	51	51	31	36
State 8-Hour ≥ 0.07 ppm	55	65	70	54	45
Federal 8-Hour ≥ 0.075 ppm[b]	35	50	48	39	36
Maximum 1-Hour Average Concentration (ppm)	0.145	0.155	0.146	0.131	0.145
Maximum 8-Hour Average Concentration (ppm)	0.115	0.122	0.121	0.097	0.122
Carbon Monoxide (CO)[a]					
State/Federal 8-Hour > 9.0 ppm	0	0	0	0	0
Maximum 8-Hour Average Concentration (ppm)	1.65	1.59	1.46	1.80	1.27
Nitrogen Dioxide (NO_2)[a]					
State 1-Hour ≥ 0.18 ppm[d]	0	0	0	0	0
Maximum 1-Hour Average Concentration (ppm)	0.095	0.094	0.096	0.079	0.069
Sulfur Dioxide (SO_2)[c]					
State 24-Hour ≥ 0.04 ppm	0	0	0	0	0
Federal-24 Hour ≥ 0.14 ppm	0	0	0	0	0
Maximum 24-Hour Average Concentration (ppm)	0.004	0.003	0.002	0.002	0.003
Suspended Particulates (PM_{10})[e]					
State 24-Hour > 50 µg/m^3	14	15	13	3	3
Federal-24 Hour > 150 µg/m^3	0	0	0	0	0
Maximum 24-Hour Average Concentration (µg/m^3)	149	90	70	87	70
Fine Particulates ($PM_{2.5}$)[e]					
Federal-24 Hour ≥ 35 µg/m^3[f]	6	6	3	1	2
Maximum 24-Hour Average Concentration (µg/m^3)	72.8	54.2	46.4	46.1	52.9

SOURCE: SCAQMD, Ambient Air Quality Monitoring Data (obtained February 2013).
ppm = parts per million; µg/m^3 = micrograms per meter cubed
a. Data obtained from the Upland Monitoring Station.
b. USEPA recently updated the 8-hour ozone standard from 0.8 ppm to 0.075 ppm.
c. Data obtained from the Fontana-Arrow Highway Monitoring Station.
d. California ARB updated the state nitrogen dioxide standard in 2007 from 0.25 ppm to 0.18 ppm.
e. Data obtained from the Ontario Monitoring Station.
f. USEPA recently updated the 24-hour $PM_{2.5}$ standard from 65 µg/m^3 to 35 µg/m^3.

State

California Air Resources Board

The California ARB, a part of CalEPA, is responsible for the coordination and administration of both federal and state air pollution control programs within California. In this capacity, ARB conducts

research, sets State ambient air quality standards (California Ambient Air Quality Standards), compiles emission inventories, develops suggested control measures and provides oversight of local programs. ARB also establishes emissions standards for motor vehicles sold in California, consumer products (such as hairspray, aerosol paints and barbecue lighter fluid) and various types of commercial equipment. It also sets fuel specifications to further reduce vehicular emissions. ARB has primary responsibility for the development of California's SIP and works closely with the federal government and the local air districts.

Table 4.3.3-2 (State and Federal Ambient Air Quality Standards) shows the California Ambient Air Quality Standards and NAAQS for each of the criteria pollutants.

Table 4.3.3-2 State and Federal Ambient Air Quality Standards

Pollutant	*Averaging Time*	*California Standard*	*Federal Primary Standard*	*Major Sources*
Ozone (O_3)[a]	1 hour	0.09 ppm	—	Internal combustion engines, coatings, and solvents
	8 hours	0.070 ppm	0.075 ppm	
Carbon Monoxide (CO)	1 hour	20 ppm	35 ppm	Internal combustion engines
	8 hours	9 ppm	9 ppm	
Nitrogen Dioxide (NO_2)[b]	Annual Average	0.030 ppm	0.053 ppm	Internal combustion engines and industrial processes
	1 hour	0.18 ppm	—	
Sulfur Dioxide	Annual Average	—	0.03 ppm	Internal combustion engines, chemical plants, sulfur recovery, and metal processing
	1 hour	0.25 ppm	—	
	24-hours	0.04 ppm	0.14 ppm	
Suspended Particulates (PM_{10})	Annual Arithmetic Mean	20 µg/m^3	—	Dust from agricultural and construction, combustion, natural activities
	24 hours	50 µg/m^3	150 µg/m^3	
Fine Particulates ($PM_{2.5}$)[c]	Annual Arithmetic Mean	12 µg/m^3	15 µg/m^3	Primarily from Internal combustion engines
	24 hours	—	35 µg/m^3	
Lead (Pb)	Monthly	1.5 µg/m^3	—	Lead smelters and lead battery manufacturing & recycling.
	Quarterly	—	1.5 µg/m^3	
Sulfates (SO_4)	24 hours	25 µg/m^3		Industrial processes

SOURCE: California ARB (2012).
ppm = parts per million; µg/m^3 = micrograms per meter cubed
a. USEPA recently updated the 8-hour ozone standard from 0.8 ppm to 0.075 ppm
b. California ARB updated the state nitrogen dioxide standard in 2007 from 0.25 ppm to 0.18 ppm
c. USEPA recently updated the 24-hour $PM_{2.5}$ standard from 65 µg/m^3 to 35 µg/m^3

Regional

Southern California Association of Governments (SCAG)

The Southern California Association of Governments (SCAG) is a council of governments for Imperial, Los Angeles, Orange, Riverside, San Bernardino and Ventura counties. It is a regional planning agency and serves as a forum for regional issues relating to transportation, the economy, community development and the environment. Although SCAG is not an air quality management agency, it is

responsible for developing transportation, land use and energy conservation measures that affect air quality. SCAG's Regional Comprehensive Plan and Guide (RCPG) provide growth forecasts that are used in the development of air quality related land use and transportation control strategies by SCAQMD.

Regional Comprehensive Plan

The Regional Comprehensive Plan (RCP) is a problem-solving guidance document that responds to SCAG's Regional Council directive in the 2002 Strategic Plan to develop a holistic, strategic plan for defining and solving the region's interrelated housing, traffic, water, air quality, and other regional challenges. The RCP is a voluntary framework that links broad principles to an action plan that moves the region towards balanced goals. The RCP's guiding principles include:

- Improve mobility for all residents. Improve the efficiency of the transportation system by strategically adding new travel choices to enhance system connectivity in concert with land use decisions and environmental objectives.
- Foster livability in all communities.
- Foster safe, healthy, walkable communities with diverse services, strong civic participation, affordable housing, and equal distribution of environmental benefits.
- Enable prosperity for all people. Promote economic vitality and new economies by providing housing, education, and job training opportunities for all people.
- Promote sustainability for future generations.
- Promote a region where quality of life and economic prosperity for future generations are supported by the sustainable use of natural resources.

Further, the RCP seeks to successfully integrate land and transportation planning and achieve land use and housing sustainability by implementing Compass Blueprint and 2 percent Strategy:

- Focusing growth in existing and emerging centers and along major transportation corridors
- Creating significant areas of mixed-use development and walkable, "people-scaled" communities
- Providing new housing opportunities, with building types and locations that respond to the region's changing demographics
- Targeting growth in housing, employment and commercial development within walking distance of existing and planned transit stations
- Injecting new life into under-used areas by creating vibrant new business districts, redeveloping old buildings and building new businesses and housing on vacant lots
- Preserving existing, stable, single-family neighborhoods
- Protecting important open space, environmentally sensitive areas and agricultural lands from development
- Reduce emissions of criteria pollutants to attain federal air quality standards by prescribed dates and state ambient air quality standards as soon as practicable

- Reverse current trends in greenhouse gas emissions to support sustainability goals for energy, water supply, agriculture, and other resource areas
- Minimize land uses that increase the risk of adverse air pollution-related health impacts from exposure to toxic air contaminants, particulates (PM_{10}, $PM_{2.5}$, ultrafine), and carbon monoxide

SCAG Compass Growth Visioning

The Compass Blueprint Growth Vision effort by SCAG is a response, supported by a regional consensus, to the land use and transportation challenges facing Southern California now and in the coming years. The Growth Vision is driven by four key principles:

- **Mobility**—Getting where we want to go
- **Livability**—Creating positive communities
- **Prosperity**—Long-term health for the region
- **Sustainability**—Preserving natural surroundings

The fundamental goal of the Compass Growth Visioning effort is to make the SCAG region a better place to live, work, and play for all residents regardless of race, ethnicity, or income class. Thus, decisions regarding growth, transportation, land use and economic development should be made to promote and sustain for future generations the region's mobility, livability and prosperity.

South Coast Air Quality Management District

SCAQMD is the agency principally responsible for comprehensive air pollution control in the South Coast Air Basin, which includes the counties of Los Angeles, Riverside, San Bernardino, and Orange. In order to provide GHG emission guidance to the local jurisdictions within the Basin, the SCAQMD has organized a Working Group to develop GHG emissions analysis guidance and thresholds.

SCAQMD released a draft guidance document regarding interim CEQA GHG significance thresholds in October 2008. On December 5, 2008, the SCAQMD Governing Board adopted the staff proposal for an interim GHG significance threshold for projects where the SCAQMD is the lead agency. SCAQMD proposed a tiered approach, whereby the level of detail and refinement needed to determine significance increases with a project's total GHG emissions. The tiered approach defines projects that are exempt under CEQA and projects that are within the jurisdiction of and subject to the policies of a GHG Reduction Plan as less than significant.

Air Quality Management Plan

The SCAQMD and the SCAG are the agencies responsible for preparing the Air Quality Management Plan (AQMP) for the Basin. Once adopted, the AQMP becomes a portion of California's SIP describing the plan to bring the Basin into attainment with the NAAQS and California Ambient Air Quality Standards. The most recent plan is the 2012 AQMP adopted on December 7, 2012. The 2012 AQMP is designed to meet the state and federal Clean Air Act planning requirements and focuses on new federal ozone and $PM_{2.5}$standards. The 2012 AQMP incorporates significant new emissions inventories, ambient measurements, scientific data, control strategies, and air quality modeling including transportation

conformity budgets that show vehicle miles travelled (VMT) emissions offsets following the recent changes in USEPA requirements.

Table 4.3.3-3 (Attainment Status of Basin) shows the attainment status for criteria air pollutants in the Basin.

Table 4.3.3-3 Attainment Status of Basin

Pollutant	*State*	*Federal*
Ozone: 1-hour	Extreme Nonattainment	Extreme Nonattainment
Ozone: 8-hour	Extreme Nonattainment	Severe-1 Nonattainment
Carbon Dioxide (CO)	Attainment	Attainment
Nitrogen Dioxide (NO_2)	Attainment	Attainment/Maintenance
Sulfur Dioxide (SO_2)	Attainment	Attainment
Suspended Particulates (PM_{10})	Serious Nonattainment	Serious Nonattainment
Fine Particulates ($PM_{2.5}$)	Nonattainment	Nonattainment
Lead	Attainment	Attainment
Sulfates (SO_4)	Unclassified	Unclassified

SOURCE: California ARB (2012).

Local

Healthy Chino Coalition

The California Healthy Cities and Communities (CHCC) network began in 1988 to promote clean, safe, and healthy places to live. In December 2004, the Chino City Council passed a resolution endorsing the Healthy Cities concept and formal participation in CHCC. Focus areas include creating safe, walkable neighborhoods, encouraging fitness by securing corporate sponsors and developing a Youth Fun Club, providing health and human services by reducing barriers to the City's mental health services, supporting a healthcare center for low-income families, promoting nutrition with healthier alternatives in the school lunch program, and developing public education programs and organizations. The Healthy Chino Coalition also focuses on "fostering supportive environments, policies, and programs to promote physical activity, wellness and increased knowledge of healthy lifestyles (Chino 2010b).

Chino General Plan

The Air Quality Element of the Chino General Plan contains policies and actions that support preservation and improvement of air quality and a reduction in GHG emissions. Applicable policies to air quality and air pollutant emissions[2] are listed below:

[2] These policies are not a complete listing of all policies contained in the General Plan; those policies that would be most applicable to the proposed project are included here.

Objective AQ-1.1 (Improve air quality through land use and transportation planning decisions)

Policy P1 The City shall promote land use patterns that reduce the number and length of motor vehicle trips.

Policy P2 Where development opportunities near shopping areas and transit corridors exist, the City shall prioritize higher-density residential development.

Policy P3 The City shall encourage employment areas to include a mix of retail support services.

Policy P4 Design new intersections to function in a manner that reduces air pollutant emissions from stop and start and idling traffic conditions.

Policy P5 The City shall, to the extent practicable, separate sensitive land uses (schools, senior centers, medical facilities, and residences) from significant sources of air pollutants, toxic air contaminants, or odor emissions.

Policy P6 The City shall require developers of projects that include sensitive land uses (schools, senior centers, medical facilities, and residences) in proximity to State Route 71 and State Route 60 to prepare a health impact assessment (HIA) to determine the significance of the impact, and to incorporate project-specific mitigation measures to avoid this risk.

Policy P7 The City shall promote expansion of employment opportunities within Chino to reduce commuting to areas outside of the City.

Policy P8 The City shall continue to enforce the vehicle idling restrictions established by the State.

Objective AQ-1.2 (Support local and regional air quality improvement efforts)

Policy P1 The City shall coordinate its air quality planning efforts with other local, regional and State agencies, and encourage community participation in air quality planning.

Policy P2 The City shall work with the South Coast Air Quality Management District (SCAQMD) to ensure the earliest practicable attainment of federal and State ambient air quality standards.

Policy P3 The City shall utilize the CEQA process to identify and avoid or mitigate potentially significant air quality impacts associated with new development.

Objective AQ-1.3 (Reduce air pollution during construction and operations of a project)

Policy P1 The City shall assess the air quality impacts of project construction and operations using the latest version of the CEQA Guidelines and the guidelines prepared by the South Coast AQMD.

Policy P2 The City shall require best management practices to reduce air pollution associated with construction of development projects.

Policy P3 The City shall review construction plans associated with development projects to determine if all feasible mitigation measures are included.

Objective AQ-1.4 (Promote healthy indoor air quality)

Policy P1 The City shall disseminate information about methods for reducing mold growth.

Policy P2 The City shall promote green building practices that support "healthy homes."

Policy P3 The City shall continue to support lead-abatement programs.

Project Impact Evaluation

Thresholds of Significance

The following thresholds of significance are based on the 2012 CEQA Guidelines Appendix G. Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. For purposes of this EIR, implementation of the San Bernardino County Regional GHG Reduction Plan might have a significant adverse impact on air quality if it would do any of the following:

- Conflict with or obstruct implementation of the applicable air quality plan
- Violate any air quality standard or contribute substantially to an existing or projected air quality violation
- Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or state ambient air quality standard (including releasing emissions that exceed quantitative thresholds for ozone precursors)
- Expose sensitive receptors to substantial pollutant concentrations
- Create objectionable odors affecting a substantial number of people

The SCAQMD has developed CEQA air pollutant thresholds for projects within the Basin. The SCAQMD thresholds of significance for air quality are shown in Table 4.3.3-4 (SCAQMD Thresholds of Significance).

Table 4.3.3-4 SCAQMD Thresholds of Significance

Pollutant	*Construction Phase*	*Operational Phase*
Volatile Organic Compounds (VOC; an ozone precursor)	75 lb/day	55 lb/day
Nitrogen Oxides (both NO_2 and NOx as an ozone precursor)	100 lb/day	55 lb/day
Sulfur Oxides (SO_X, both SO_2 and SO_4)	150 lb/day	150 lb/day
Carbon Monoxide (CO)	550 lb/day	550 lb/day
Suspended Particulates (PM_{10})	150 lb/day	150 lb/day
Fine Particulates ($PM_{2.5}$)	55 lb/day	55 lb/day

SOURCE: SCAQMD (2012).

In addition, SCAQMD's health related thresholds associated with toxic air contaminants are as follows:

- Emission of (or exposure to) carcinogenic toxic air contaminants that increase maximum cancer risk by 10 in one million
- Emission of (or exposure to) toxic air contaminants that increase the maximum hazard quotient by 1

Analytic Method

The impact analysis for the Regional Reduction Plan is based on the air quality emissions analysis in the General Plan EIR, and predicted air pollutant reductions that would be expected from implementation of the Regional Reduction Plan.

Effects Not Found to Be Significant

Threshold	Would the project conflict with or obstruct implementation of the applicable air quality plan?

The 2012 AQMP is the applicable air quality management plan for the region and is designed to meet the state and federal Clean Air Act planning requirements with a focus on new federal ozone and $PM_{2.5}$ standards. The 2012 AQMP incorporates significant new control strategies, including transportation conformity budgets that show VMT emissions offsets following the recent changes in USEPA requirements.

The proposed project (the Regional Reduction Plan) would implement measures within Chino designed to increase energy efficiency and reduce VMT. While these reduction strategies were formulated to reduce greenhouse gases, they also act to improve overall air quality by reducing emissions of criteria pollutants.

The City will implement transportation measures to improve air quality. These include VMT reduction strategies such as Regional Reduction Plan reduction Transportation-2 (Smart Bus Technologies). Transporation-2 would lead to more fuel-efficient bus operations for Omnitrans and could potentially attract more transit riders who may switch modes from automobile use.

The Regional Reduction Plan includes pedestrian and bicycle infrastructure planning for bikeways and pedestrian paths to be build that connect various land uses. A key benefit to the implementation of pedestrian and bicycle infrastructure within the City will be a reduction in traffic and improved air quality. Implementation of these measures through the Regional Reduction Plan would improve air quality by reducing vehicle-related air pollutant emissions through the reduction of VMT. In addition, energy efficiency measures to reduce electricity use and renewable energy generation will reduce both GHG emissions and air pollutants at power plants generating electricity in the region. Energy efficiency measures in the Regional Reduction Plan will also reduce natural gas combustion at residential, commercial, and industrial land uses within the City, which will reduce criteria air pollution locally. The implementation of the Regional Reduction Plan will further the goals of the Air Quality Management Plan for the Basin. Therefore, this impact would be ***less than significant***. No mitigation is required

Threshold	Would the project violate any air quality standard or contribute substantially to an existing or projected air quality violation?

Construction activities, such as building energy retrofits and grading or excavation activities, if required, for installation of energy-generating structures or bicycle/pedestrian paths and transit infrastructure, would result in temporary, short-term emissions of air pollutants. The primary source of NO_X, CO, and SO_X emissions is the operation of construction equipment. The primary sources of particulate matter

(PM_{10} and $PM_{2.5}$) emissions include activities that disturb the soil, such as grading and excavation, road construction, and building demolition and construction. The primary source of VOC emissions is the application of architectural coating and off-gas emissions associated with asphalt paving. Because information regarding specific facilities and building details required to implement the Regional Reduction Plan reduction measures is not available, short-term construction emissions from these activities cannot be quantified. However, these temporary, short-term emissions would not be substantial, and would be offset by the operation of energy-efficiency retrofits, renewable energy project, pedestrian and bicycle paths and transit infrastructure that are part of the reduction measures in the Regional Reduction Plan that would result in an overall reduction in both GHG and criteria air pollutant emissions.

While short-term construction emissions are not quantifiable, long-term emissions of criteria pollutants from operation of the energy efficiency measures, renewable energy generation, water conservation measures, solid waste diversion programs, and the various transportation measures are better understood at a regional level. This is because of the level of commitment that the City of Chino has chosen in implementing the reduction measures in the Regional Reduction Plan. Table 4.3.3-5 (City of Chino Regional Emissions) compares the criteria pollutant emissions predicted in the Chino General Plan with the predicted reductions in those emissions through implementation of the Regional Reduction Plan.

The proposed project (the Regional Reduction Plan) will reduce anticipated criteria air pollutant emissions resulting from buildout of the Chino General Plan. However, this environmental benefit does not reduce air pollutants enough to cause buildout of the General Plan to be less than cumulatively considerable. Therefore, the net emissions resulting from the General Plan with implementation of the Regional Reduction Plan reductions is still a cumulatively considerable contribution to criteria air pollutants for which the Basin is in non-attainment. This significant impact of General Plan was identified in the General Plan EIR.

However, because implementation of the Regional Reduction Plan has a net reduction in air pollution, this impact would be ***less than significant***. No mitigation is required

Threshold	Would the project expose sensitive receptors to substantial pollutant concentrations?

As shown in Table 4.3.3-5, the Regional Reduction Plan will reduce criteria pollutant emissions within the City of Chino. On-Road Transportation-1 (Sustainable Communities Strategy [SCS]) in the Regional Reduction Plan supports transit-oriented development and increased public transportation availability. Within the City of Chino, public transportation service consists of buses that are operated by Omnitrans, Foothill Transit, and Orange County Transportation Authority. There are no commuter rail services within the City. The closest Metrolink line serving Chino is the Riverside line located north of Chino and stops in East Ontario and in Downtown Pomona. Majority of bus fleet in Chino runs on compressed natural gas (CNG), which reduces particulate matter emissions by more than 80%. Additionally, the number of electric engine buses is increasing the region. Therefore, the project would not expose sensitive receptors in the City to substantial pollutant concentrations. Therefore, this impact would be ***less than significant***. No mitigation is required.

Threshold	Would the project create objectionable odors affecting a substantial number of people?

Implementation of the Regional Reduction Plan will not create objectionable odors. None of reduction measures in the Regional Reduction Plan selected by the City of Chino include components that typically generate odors. Therefore, this impact would be ***less than significant***. No mitigation is required.

Table 4.3.3-5 City of Chino Regional Emissions (lb/day)

Emission Sources	*VOC*	*NO_X*	*CO*	*SO_X*	*PM_{10}*	*$PM_{2.5}$*
Existing Land Use Emissions[a]						
Transportation	8,287	14,281	101,739	84	16,615	3,203
Area Sources[b]	6,002	771	10,246	28	1,552	1,494
Total Existing Land Use Emissions	***14,716***	***15,052***	***111,985***	***112***	***18,167***	***4,697***
Chino General Plan Build-Out Emissions[a]						
Transportation	5,916	7,397	62,774	143	27,926	5,337
Area Sources[b]	9,347	1,242	17,244	47	2,617	2,520
Total General Plan Build-Out Emissions	***15,263***	***8,640***	***80,018***	***190***	***30,543***	***7,857***
Changes in Emissions with the Regional Reduction Plan[c]						
Transportation	-1,517	-1,897	-16,103	-37	-7,163	-1,369
Area Sources[b]	-720	-96	-1,328	-4	-202	-194
Total GHG Performance Standard[d]	-1,750	-991	-9,174	-22	-3,502	-901
Total Changes to Emissions	***-3,987***	***-2,984***	***-26,605***	***-63***	***-10,867***	***-2,464***
Emission Comparison						
Net General Plan Emissions with implementation of the Regional Reduction Plan	11,276	5,656	53,413	125	19,676	5,393
Estimated Regional Reduction Plan Percent Reduction in Air Pollution	26.1%	34.5%	33.2%	33.2%	35.6%	31.4%
SCAQMD Threshold	**55**	**55**	**550**	**150**	**150**	**55**
Is the General Plan Significant with Regional Reduction Plan Reductions?	**Yes**	**Yes**	**Yes**	No	**Yes**	**Yes**
Is the Regional Reduction Plan Significant?	No	No	No	No	No	No

SOURCE:
lb/day = pounds per day

a. The General Plan provides maximum daily emissions during summer and winter. The values in this table represent the maximum of the two scenarios for each pollutant.
b. Area Sources category consists of emissions from natural gas, hearth, landscaping, consumer products, and architectural coating.
c. Regional Reduction Plan reductions based on percentage reductions by sector (energy sector = natural gas, etc.).
d. GHG Performance Standard is not sector specific. Estimated reductions based upon expected reductions of totals for new development.

Cumulative Impacts

Threshold	Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or state ambient air quality standard (including releasing emissions that exceed quantitative thresholds for ozone precursors)?

Because the Regional Reduction Plan does not increase emission levels at a project level, implementation of the Regional Reduction Plan will not create impacts that are cumulatively considerable. Therefore, ***cumulative impacts are less than significant***.

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4.3.4 Biological Resources

This section of the EIR analyzes the potential environmental effects on biological resources in the City of Chino from implementation of the Regional Reduction Plan. Data for this section were taken from the Chino General Plan (July 2010a) and associated environmental impact report (January 2010b). Full reference-list entries for all cited materials are provided at the end of this section.

No comment letters addressing biological resources were received in response to the notice of preparation (NOP) circulated for the Regional Reduction Plan.

Environmental Setting

As set forth in CEQA Guidelines Section 15125(a) this section describes the physical environmental conditions in the City at the time the environmental analysis commenced. It constitutes the baseline physical conditions by which the Lead Agency and the City of Chino will determine whether Biological Resources impact is significant.

Biological resources in Chino are influenced by its location within the Santa Ana River drainage area. The Santa Ana River originates in the slopes of the San Bernardino Mountains to the northeast of the City and drains through the narrow Santa Ana Canyon between Chino Hills and the Santa Ana Mountains, emptying into the Pacific Ocean approximately 30 miles to the southwest. The Prado Basin, a major feature of the Santa Ana River watershed, is located in the Chino area as well. The Prado Basin terminates at the Prado Dam, which has a maximum reservoir water surface of 556 feet. The USACE and Orange County Flood Control District (OCFD) are in the process of raising the maximum reservoir water surface to 566 feet above sea level in order to accommodate additional flood control capacity for the region. The extent of land within Chino that is within that 566-foot elevation area is shown in Figure 4.3.9-2 (Prado Dam Inundation Area) in Section 4.3.9 (Hydrology/Water Quality) of this EIR. When the raising of the dam is completed, areas below the 566-foot flood inundation line will be subject to flooding. These areas are restricted to recreation, open space and resource management uses. Land at and below that elevation is subject to flooding and has high biological resource value, including riparian and scrub habitat. The Edgewater Communities project area will occupy some of the area currently below 566 feet of elevation, but will raise certain land areas above this elevation for development.

In general, the northern portion of the City of Chino is urbanized and has limited biological resources. Biologically diverse areas are concentrated in the southeastern portion of the City and include Prado Regional Park, Prado Lake, Subarea 1 and The Preserve.

Aquatic Resources

The value of aquatic resources in Chino has been degraded as a result of urbanization and the effects of urban runoff. Aquatic resources in Chino consist of detention basins, marshes, open water, and drainages. Detention basins and drainages are typically dominated by weedy, non-native vegetation. Farmers created the majority of the detention basins to control dairy run-off, and they are located in the agricultural areas in the southern portion of the City. These basins accumulate surface flows containing manure and other waste after heavy rains. Open water areas contain little or no vegetation and either

have a nearly constant flow of water or are too deep to support rooted vegetation. These areas are used as foraging and resting points for migrating and resident waterfowl, shorebirds, and raptors, along with many other species. Open water bodies include Prado Lake and the upper portion of Mill Creek, a few large dairy ponds, and some smaller areas within Chino Creek.

Seven riparian corridors run through the City:

- The concrete-lined San Antonio Channel runs along Chino's western boundary and ultimately meets with Chino Creek, and is the responsibility of San Bernardino County Flood Control (SBCFC).
- Chino Creek, entering Chino south of State Route 60 (SR-60), joins the San Antonio Channel, and follows the western side of the City southward. It is concrete lined upstream of Central Avenue, and a straightened earthen channel from Central Avenue to Pine Avenue. Downstream of Pine Avenue it is more natural and meanders until it flows into the Prado Flood Control Basin, and is the responsibility of the Corps.
- The West State Street Storm Drain begins in Ontario and flows through the City of Montclair and discharges into the San Antonio Channel. It serves as the northern-most portion of the 100-year flood system for the drainage area that includes Chino. It is a concrete-lined channel, and is the responsibility of SBCFC.
- The Chino Storm Drain, constructed alongside SR-60, joins the San Antonio Channel on the western side of the City. It provides drainage for approximately 5.5 square miles between State Street and the Pomona Freeway. It is a concrete-lined channel, and is the responsibility of SBCFC.
- The concrete-lined Cypress Channel begins south of SR-60, flows through California Institution for Men (CIM), and drains into the Corps' Prado Flood Control Basin. It is concrete lined with the exception of a small unimproved earthen section located in the CIM property. It provides storm drainage to the eastern side of the City of Chino, and is the responsibility of SBCFC.
- The Magnolia Channel extends from Edison Avenue through the southern part of the City and ultimately joins with Chino Creek. It is an unimproved earthen channel and provides some potential wildlife habitat as it passes through agricultural lands, particularly through the CIM property and is the responsibility of the City of Chino.
- Cucamonga Creek enters the City from the north after running through Rancho Cucamonga and Ontario in a channel. Referred to as Mill Creek in Chino, it is not channelized. It flows through the area to the south of The Preserve. Although agricultural uses have affected the creek, primarily through erosion, it is largely a natural creek. The channelized portion north of Chino-Corona Road is the responsibility of SBCFC, while the unchannelized portion south of Chino-Corona Road is the responsibility of the Corps

Agricultural and Dairy Lands

Agricultural areas are located in the central and southeastern portion of the City, mostly south of Edison Avenue and east of Central Avenue. Agricultural lands in Chino, including dairy land, active fields, fallow fields, pastures, and cultivated agriculture cropland, provide habitat and foraging opportunities for certain species.

Dairy fields and their associated paddocks for stock are covered by manure. Very little vegetation, especially native vegetation, occurs in these areas and they generally do not provide valuable wildlife habitat. Active fields are largely covered with crops and provide limited value to a few rodent species adapted to disturbance and urbanization. Raptors and insectivores such as swallows, swifts, and bats may also forage over these fields. In particular, fields are important foraging habitat for raptors, particularly burrowing owls. Fallow fields and pasture lands support mostly non-native ruderal vegetation but provide habitat for rodent species and foraging habitat for raptors. Fallow fields are removed from intensive agricultural operations and can develop a greater small mammal population and provide higher habitat value for raptors, as well as a variety of insectivorous and seed eating birds. The dominant vegetation within the cultivated agricultural fields is planted ornamental landscaping, cultivated crops, and fields of non-native grass and opportunistic weedy species. Bird activity is relatively high within these areas, but bird diversity is low. Remnants of native vegetation are typically minimal or absent in Chino's agricultural lands. Windrows are typically a result of historic agricultural activities. Windrows in Chino are comprised of ornamental species. However, windrows provide nesting and foraging opportunities for raptors and passerine bird species.

Developed Areas

Developed areas constitute the majority of the City. Developed areas in Chino are characterized by ornamental vegetation, landscaped parkways, barren ground, structures, asphalt, and concrete. These areas include commercial buildings, infrastructure, residential homes, industrial areas, city parks, and institutions. These developed areas support a very limited amount of vegetation, which, if present, typically comprises non-native ornamental species planted for their aesthetic and utilitarian values.

Prado Regional Park is in the southwestern portion of the City and is mainly composed of ornamental non-native vegetation. The Prado Regional Park provides a substantial amount of foraging and roosting habitat for raptors, songbirds, mammals, reptiles, and some amphibian species.

Natural Communities

Following a widely used, broad classification, five natural plant communities occur in Chino. Two additional vegetation types are also categorized below for consistency as areas of open space relevant to wildlife.

Annual Grassland

Annual grassland consists of a dense to sparse cover of annual grasses. While most annual grasses in the region are non-native, this community is also often associated with numerous species of native wildflowers, especially in years of heavy rainfall. Annual grassland typically supports relatively high small mammal populations and is considered one of the most valuable habitat types for raptor species.10 In Chino, non-native grasslands have historically been used for grazing and support very little diversity in species and structure. At least 11 of the special-status plants known from the City area and listed in Table 4.3.4-1 (Special-Status Plants Known to Occur in or near the City of Chino), below, are found, in part, in grasslands. In addition to raptors, many of the special-status wildlife known from the City area and listed in Table 4.3.4-2 (Special-Status Wildlife Known to Occur in or near the City of Chino), below, utilize grasslands for all or part of their life cycles. For example, Tricolored Blackbirds (*Agelaius tricolor*)

nest mostly in marshes, but forage extensively in grasslands. Grasshopper Sparrow (*Ammodramus savannarum*) is rarely found outside grasslands, but is migratory and largely absent in winter.

Southern Cottonwood Willow Riparian Forest

This community contains dense, broad-leaved, winter-deciduous riparian trees dominated by several willow species and is associated with seasonally flooded or saturated stream and river corridors. The willow tree species typically form thickets (early stages) or forests (mature stages) in riparian zones along creek channels, adjacent sandy or gravel floodplains, and low stream terraces. Where broken or open, understory development can be substantial and diverse. In shaded, closed-canopy situations, sometimes called gallery forest, understory development may be minimal. This community occurs primarily below the 566-foot elevation line along Chino and Mill Creeks. Several species of special-status plants in the City area are known from within, or at the margins of, riparian forests. These include southern tarplant (*Centromadia parryi australis*), smooth tarplant (*Centromadia pungens laevis*), and Gambel's watercress (*Rorippa gambellii*). This community provides key habitat for a wide variety of special-status and non-special-status wildlife, including least Bell's vireo, southwestern willow flycatcher, and yellow-billed cuckoo

Southern Willow Scrub

This dense, broadleafed, winter-deciduous community of low, riparian thickets is dominated by several willow species, with scattered emergent cottonwoods and sycamores. Most stands are too dense to allow much understory development. Southern willow scrub is typically found in loose, sandy or fine gravel alluvium deposited near stream channels. Special-status species occurring in this natural community include many of the species that may be found in southern cottonwood willow forest, except for those requiring substantial forest structure, such as the yellow-billed cuckoo.

Coastal and Valley Freshwater Marsh

This community is dominated by perennial, emergent monocots and often forms completely closed canopies. These marshes are found in areas with still or slow-moving water, often where permanently flooded by fresh water. Prolonged saturation over time permits accumulation of deep, peaty soils. This community can be found in parts of Chino Creek, Mill Creek, and in the Santa Ana River. This plant community does not include deep water areas where plants are absent. At least ten of the special-status plants known in the City area are often or always associated with freshwater marshes, including some that are typically found along undisturbed marsh margins. Special-status wildlife in the City area that are associated with marshy communities include tricolored blackbird, arroyo toad (*Bufo californicus*), northern harrier (*Circus cyaneus*), least bittern (*Ixobrychus exilis*), California red-legged frog (*Rana aurora draytonii*), coast range newt (*Taricha torosa torosa*), and two-striped garter snake (*Thamnophis hammondii*).

Mule Fat Scrub

This community is comprised of tall scrub dominated by mule fat. It is often an early successional stage of other riparian forest or woodland communities and is maintained by frequent flooding. It frequently occurs as patchy understory within and at the margins of other vegetation communities. It is a relatively common community and can be found in a variety of locations throughout Chino. While few, if any, special-status species in the City area are restricted to this natural community, plant and animal species associated with other riparian and marsh communities, and even adjacent upland communities, will

frequently occur there when Mule Fat Scrub is adjacent to those communities. Mule fat scrub also frequently acts as a buffer to other natural communities, attenuating a variety of human disturbances.

Ornamental Woodland

Ornamental woodlands are created by disturbance and passive introduction of ornamental vegetation. They are grouped separately here because their large size potentially provides similar wildlife values as natural areas. There are several areas of ornamental woodlands, mainly concentrated within the parks and various scattered windrows in Chino. As its non-native components suggest, there are no native plants or animals found only in these woodlands. However, depending on position in the larger landscape, vegetation structure, hydrology, and levels of ongoing disturbance, many special-status species will occur in ornamental woodlands. In particular, raptors and some other special-status birds will nest in such areas. Typically, birds nesting in such areas are primarily native species.

Arundo Scrub

Arundo scrub is completely dominated by the non-native giant reed (*Arundo donax*). This hearty perennial grass can form impenetrable forests 30 feet high in areas periodically inundated with water. Large stands of Arundo scrub can be found within Mill Creek, Chino Creek, and parts of the Santa Ana River. Plant diversity typically reflects few or no species other than giant reed, though remnants of prior communities and occasional other plants will appear, especially at margins or temporary openings. Giant reed has very limited wildlife value, though native mammals will often use it for refuge or dens, and small numbers of many native bird species will occasionally forage or nest in it. Notably, there are a few records of least Bell's vireo nesting in giant reed in California, though it is certainly not a usual substrate.

Wildlife

The diversity of wildlife within the northwestern portion of the City is relatively low as a result of development. Species expected to occur commonly in these urbanized areas include small mammals such as desert cottontail, California ground squirrel, Botta's pocket gopher, striped skunk, Virginia opossum, Pacific chorus frog, western toad, western fence lizard, side-blotched lizard, various urban-adapted, non-migratory birds, and modest numbers of migratory birds (especially fall through spring). Some raptor species are expected to occur within developed areas, such as Cooper's hawk and red-tailed hawk. A somewhat greater diversity of wildlife is expected to occur along the flood control channels, within unimproved areas, and in the southern portion of Chino. Burrowing owls and other raptors forage in agricultural fields, searching for small rodents and birds. Wet fields attract wading birds hunting small animals that concentrate in wet areas.

The southern portion of the City is both flatter and wetter than the remainder of the City. These conditions attract migratory birds. In general, the limited development in this area has allowed a greater diversity of native and non-native wildlife to remain than in the more-developed northern portion of the City.

Special-Status Species

The City is home to a wide variety of native, naturalized and invasive plant and wildlife species. Due to the broad area of study and the variety of habitats contained within, a complete listing of plants and

wildlife occurring or potentially occurring within the planning area is not feasible. Instead, biological resources analysis centers on special-status species, as discussed below. The City of Chino lies within the USGS 7.5-minute Ontario, California quadrangle. This quadrangle and the surrounding eight USGS 7.5-minutes quadrangles (Corona North, Prado Dam, San Dimas, Glendora, Yorba Linda, Guasti, Cucamonga Peak, and Mount Baldy) were queried using the California Native Plant Society's (CNPS) Inventory of Rare and Endangered Plants and the CNDDB for records of special-status biological resources in that area, totaling approximately 510,000 acres (800 square miles). This data was used to compile a list of species to evaluate for potential impacts. The additional area beyond the City boundaries was included because many species that potentially occur in the City may currently be documented in those databases only in adjacent areas. As a refinement, species were excluded in the larger area, or study region, if they occur only in irrelevant situations such as on carbonate soils at high elevations in the San Bernardino Mountains. Additionally, a List of Special Status Animals by the USFWS for any additional species was included.

In this discussion, plants and animals are considered special-status species if they fall into any of the following categories:

- Listed by the USFWS as endangered, threatened, candidate, proposed as endangered or threatened, or species of concern
- Listed by the CDFW as endangered, threatened, fully protected, or species of special concern
- Listed by CNPS as rare and endangered in California and throughout its range (List 1B), or rare and endangered in California but more common elsewhere (List 2)

Table 4.3.4-1 (Special-Status Plants Known to Occur in or near the City of Chino) lists plant species that are known to occur, or have occurred, in the study region for the City of Chino. Table 4.3.4-2 (Special-Status Wildlife Known to Occur in or near the City of Chino) lists wildlife species that are known to occur, or have occurred, in the study region for the City of Chino.

Table 4.3.4-1 Special-Status Plants Known to Occur in or near the City of Chino

Scientific Name/ Common Name	*Status (CNPS/Federal/State)*	*Habitat Affinities/Potential of Occurrence*
Abronia villosa var. *aurita*/ Chaparral sand-verbena	1B	Sandy areas in chaparral and coastal sage scrub.
Arenaria paludicola/ Marsh sandwort	FE	Marshes and swamps, sandy areas. Believed to be extirpated from southern California.
Astragalus brauntonii/ Braunton's milk vetch	1B	Carbonate soils in coniferous forest, chaparral, coastal sage scrub, and valley and foothill grassland.
Atriplex coulteri/ Coulter's saltbush	1B	Coastal dunes, coastal bluff scrub.
Atriplex serenana var. *davidsonii*/ Davidson's saltscale	1B	Coastal sage scrub and alkaline soils.
Berberis nevinii/ Nevin's barberry	1B, FE, CE	Chaparral, cismontane woodland, coastal sage scrub, riparian scrub, steep facing slopes.
Brodiaea filifolia/ Thread-leaved brodiaea	1B, FT, CE	Cismontane woodland, coastal sage scrub, vernal pools, valley and foothill grassland.

Table 4.3.4-1 Special-Status Plants Known to Occur in or near the City of Chino

Scientific Name/ Common Name	*Status (CNPS/Federal/State)*	*Habitat Affinities/Potential of Occurrence*
California macrophyllum/ Round-leaved filaree	1B	Cismontane woodland, valley and foothill grassland.
Calochortus clavatus var. *gracilis*/ Slender mariposa lily	1B	Chaparral, coastal shrub, shaded foothill canyons, often on grassy slopes within other habitats.
Calochortus palmeri var. *palmeri*/ Palmer's mariposa lily	1B	Meadows and seeps, chaparral, lower montane coniferous forest.
Calochortus plummerae/ Plummer's mariposa lily	1B	Coastal sage scrub, chaparral, valley and foothill grassland, cismontane woodland, rocky and sandy sites.
Calochortus weedii var. *intermedius*/ Intermediate mariposa lily	1B	Rocky areas in chaparral, coastal sage scrub, and foothill grasslands.
Centromadia parryi ssp. *australis*/ Southern tarplant	1B	Marshes and swamp margins, valley and foothill grassland, vernal pools, often in disturbed sites.
Centromadia pungens ssp. *laevis*/ Smooth tarplant	1B	Grassland, ruderal and alkali meadows.
Chorizanthe parryi var. *fernandina*/ San Fernando Valley spineflower	CE, C	Coastal scrub, valley and foothill grasslands.
Chorizanthe parryi var. *parryi*/ Parry's spineflower	1B	Cismontane woodland, valley and foothill grassland.
Cladium californicum/ California sawgrass	2	Meadows, seeps, marshes and swamps, alkaline or fresh water.
Dodecahema (*Centrostegia*) *leptoceras*/ Slender-horned spineflower	1B, FE, CE	Chaparral, coastal sage scrub, cismontane woodland, sandy alluvial fan soils.
Dudleya densiflora/ San Gabriel mountains dudleya	1B	Cismontane woodland, chaparral, lower montane coniferous forest, riparian woodland, cliffs and canyon walls.
Dudleya multicaulis/ Many-stemmed dudleya	1B	Coastal sage scrub, chaparral and grasslands, and rock outcrops.
Eriastrum densifolium ssp. *sanctorum*/ Santa Ana woollystar	1B, FE, CE	Sandy soils of river floodplains and terraced alluvial deposits.
Horkelia cuneata ssp. *puberula*/ Mesa horkelia	1B	Chaparral, cismontane woodland, coastal sage scrub, sandy or gravelly soils.
Imperata brevifolia/ California satintail	2	Chaparral, coastal sage scrub, Mojavean desert scrub, meadows and seeps, riparian scrub, and mesic soils.
Lepidium virginicum var. *robinsonii*/ Robinson's pepper-grass	1B	Chaparral and coastal sage scrub.
Navarretia prostrate/ Prostrate vernal pool navarretia	1B	Coastal sage scrub, meadows and seeps, valley and foothill grassland, vernal pools, mesic soils.
Nolina cismontane/ Peninsular nolina	1B	Chaparral, coastal scrub, primarily on sandstone and shale substrates.
Pseudognaphalium leucocephalum/ White-rabbit-tobacco	2	Chaparral, cismontane woodland, coastal sage scrub, riparian woodland, sandy or gravel areas.
Rorippa gambelii/ Gambel's watercress	1B, FE, CE	Marshes and swamps. Nearly extinct in U.S.; known in CA from only four occurrences.

Table 4.3.4-1 Special-Status Plants Known to Occur in or near the City of Chino

Scientific Name/ Common Name	*Status (CNPS/Federal/State)*	*Habitat Affinities/Potential of Occurrence*
Senecio aphanactis/ Chaparral ragwort	2	Chaparral, cismontane woodland, coastal sage scrub, sometimes alkaline soils.
Sidalcea neomexicana/ Salt spring checkerbloom	2	Chaparral, coastal sage scrub, lower montane coniferous forest, Mojavean desert scrub, playas, alkaline and mesic soils.
Symphyotrichum defoliatum/ San Bernardino aster	1B	Cismontane woodland, coastal sage scrub, lower montane coniferous forest, meadows and seeps, marshes and swamps, valley and foothill grassland, streams, and springs.
Symphyotrichum greatae/ Greata's aster	1B	Broadleafed upland forest, chaparral, cismontane woodland, lower montane coniferous forest, riparian woodland, and mesic soils.

SOURCE: City of Chino, *Chino General Plan Draft EIR* (January 2010).

STATUS DEFINITIONS:

USFWS

FE = Species designated as endangered under the federal Endangered Species Act. Endangered = "any species in danger of extinction throughout all or a significant portion of its range."

FT = Species designated as threatened under the federal Endangered Species Act. Threatened = "species likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range."

C = Candidate species are plants and animals for which the USFWS has sufficient information on their biological status and threats to propose them as endangered or threatened under the federal Endangered Species Act, but for which development of a listing regulation is precluded by other higher priority listing activities.

PR = Proposed revised listing.

CDFW

ST = Threatened = "A species 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 Act" (California Endangered Species Act).

SE = Endangered = "A species is endangered when its prospects of survival and reproduction are in immediate jeopardy from one or more causes."

SC = Species of Special Concern.

CNPS

1B = Plants Rare, Threatened, or Endangered in California and elsewhere.

2 = Plants Rare, Threatened, or Endangered in California but more common elsewhere.

Table 4.3.4-2 Special-Status Wildlife Known to Occur in or near the City of Chino

Scientific Name/ Common Name	*Status(Federal/State)*	*Habitat Affinities/Potential of Occurrence*
Agelaius tricolor/ Tricolored blackbird	SC	Marshes, agricultural fields, sewage treatment plants, or stockyards and grasslands.
Actinemys marmorata pallida/ Southwestern pond turtle	SC	Permanent or nearly permanent bodies of water in many habitat types.
Ammodramus savannarum/ Grasshopper sparrow	SC	Dense grassland on rolling hills with scattered shrubs.
Anniella pulchra/ Silvery legless lizard	SC	Sandy soils with shade or leaf litter and springtime moisture (but not wetlands).
Antrozous pallidus/ Pallid bat	SC	Deserts, grassland, shrublands, woodlands and forests, dry habitats. Most common in dry rocky areas.
Athene cunicularia/ Burrowing owl	SC	Open, dry annual or perennial grasslands, scrublands, and undisturbed edge lands characterized by low-growing vegetation.

Table 4.3.4-2 Special-Status Wildlife Known to Occur in or near the City of Chino

Scientific Name/ Common Name	*Status(Federal/State)*	*Habitat Affinities/Potential of Occurrence*
Asio otus/ Long-eared owl	SC	Riparian and oak forests. Hunts small mammals at night in adjacent open habitats.
Aspidoscelis hyperythra/ Orange-throated whiptail	SC	Inhabits low-elevation coastal scrub and chaparral. Occurs on or adjacent to floodplains or the terraces of streams, in or by open sage scrub and chaparral communities.
Bufo californicus/ Arroyo toad	FE, D	Washes and arroyos with open water; sand or gravel beds; for breeding, pools, with sparse overstory vegetation.
Catostomus santaanae/ Santa Ana sucker	SC, FT, D	No potential to occur. Endemic to Los Angeles Basin south coastal streams, habitat generalist but prefers sandrubble boulder bottoms, cool, clear water, and algae.
Campylorhynchus brunneicapillus sandiegensis/ Coastal cactus wren	SC	Obligate resident within a subset of coastal sage scrub habitats. Cactus wrens additionally require the presence of, but are not entirely restricted within, relatively arborescent (over 1 meter tall) stands of several species of cactus (Opuntia spp.).
Chaetodipus fallax fallax/ Northwestern San Diego pocket mouse	SC	Sandy herbaceous areas, usually in association with rocks or coarse gravel.
Circus cyaneus/ Northern harrier	SC	Open areas with limited disturbance and abundant suitable prey; frequently, marshes and productive grasslands.
Coccyzus americanus occidentalis/ Western yellow-billed cuckoo	FC, CE	Requires extensive riparian forest along broad, lower flood bottoms of large river systems.
Corynorhinus townsediil/ Townsend's big-eared bat	SC	Widespread yet uncommon at middle to lower elevations; may be limited by the need for undisturbed roosts.
Crotalus ruber ruber/ Northern red-diamond rattlesnake	SC	Areas of heavy brush, such as chamise chaparral, boulders and rocky outcrops.
Dendroica petechia brewsteri/ Yellow warbler	SC	Upper story riparian habitats especially alder woodland and forest.
Dipodomys merriami parvus/ San Bernardino kangaroo rat	SC, FE, PR	Soils of sandy loam, occasionally to sandy gravel, in open to moderately shrubby habitats, especially intermediate serial stages of alluvial fan sage scrub.
Dipodomys stephensi/ Stephens' kangaroo rat	FE, CT	Arid areas, coastal sage scrub, friable soils.
Elanus leucurus/ White-tailed kite	SC, FP	Savannahs, open woodlands, and productive grasslands with limited disturbance.
Empidonax traillii extimus/ Southwestern willow flycatcher	FE, CE	Riparian woodlands along rivers, streams, or other wetlands, dense growths of willows.
Eumpps perotis californicus/ Western mastiff bat	SC	Semi-arid to arid habitats including conifer and deciduous woodlands, coastal sage scrub, grasslands, chaparral.
Euphydryas editha quino/ Quino checkerspot butterfly	FE	Open areas in grasslands, forb-lands, coastal sage scrub, and chaparral, usually with low disturbance and a well-developed biological soil crust. Primary larval host plant is Plantago erecta.

Table 4.3.4-2 Special-Status Wildlife Known to Occur in or near the City of Chino

Scientific Name/ Common Name	*Status(Federal/State)*	*Habitat Affinities/Potential of Occurrence*
Falco peregrinus/ Peregrine falcon	SE, FP	Primarily restricted to open areas with concentrations of water birds; a few nest in tall, urban buildings (e.g. Los Angeles, San Diego), preys on pigeons.
Gila orcuttii/ Arroyo chub	SC	Los Angeles basin coastal streams; slow water stream sections with mud or sand bottoms, feeds heavily on aquatic vegetation and associated invertebrates.
Haliaeetus leucocephalus/ Bald eagle	SE, FP	Largely restricted to extensive lakes with limited disturbance.
Icteria virens/ Yellow-breasted chat	SC	Riparian habitat with narrow border of streams and creeks, with a well developed shrub layer and overstory.
Ixobrychus exilis/ Least bittern	SC	Extensive tule or cattail marshes near open water.
Lanius ludovicianus/ Loggerhead shrike	SC	Open, dry areas, usually with some bare ground, limited disturbance, and abundant prey (large insects, lizards, etc.).
Lepus californicus bennettii/ San Diego black-tailed jackrabbit	SC	Extensive open spaces, such as grasslands or open sage scrub, usually in fairly level situations.
Neotoma lepida intermedia/ San Diego desert woodrat	SC	Shrub habitats, frequently in rocky and/or steep terrain and upper drainages.
Nyctinomops femorosaccus/ Pocketed free-tailed bat	SC	Arid habitat, roost in high rock crevices and cliffs.
Nyctinomops macrotis/ Big free-tailed bat	SC	Arid habitat, roost in high rock crevices and cliffs.
Onychomys torridus Ramona/ Ramona southern grasshopper mouse	SC	Dry grasslands and open shrublands with abundant prey (large insects and occasionally even small vertebrates).
Pelecanus occidentalis/ Brown pelican	FE	Forages and rests in project area. Abundant resting locations are adjacent to the project area.
Perognathus longimembris brevinasus/ Los Angeles little pocket mouse	SC	Open ground, prefers fine sandy soils (for burrowing), gravel washes and on stony soils, within brush and woodland habitats.
Phrynosoma blainvillii/ Coast horned lizard	SC	Variety of vegetation communities, from grasslands and shrublands to woodlands, including coniferous forests.
Polioptila californica californica/ Coastal California gnatcatcher	SC, FT	Habitat conditions on site are not conducive to support this species.
Rana aurora draytonii/ California red-legged frog	FT, PR	Streams with slow moving water and deep pools; dense shrubby riparian vegetation at pool edges.
Rana muscosa/ Mountain yellow-legged frog	SC, FE	Federal listing refers to populations in the San Gabriel mountains; always encountered within a few feet of water.
Rhaphiomidas terminates abdominalis/ Delhi sands giant flower-loving fly	FE	Found only in areas of Delhi sands soils within the area formerly known as the Colton Dunes.
Salvadora hexalepis virgultea/ Coast patch-nosed snake	SC	Extensive shrublands, generally with minimal degradation.

Table 4.3.4-2 Special-Status Wildlife Known to Occur in or near the City of Chino

Scientific Name/ Common Name	*Status(Federal/State)*	*Habitat Affinities/Potential of Occurrence*
Scaphiopus hammondii/ Western spadefoot	SC	Vernal pools, swales and even man-made pools with needed hydrology, warm water temperatures, nearby upland estivation sites, and limited predators.
Taricha torosa torosa/ Coast range newt	SC	Coastal drainages from Mendocino to San Diego County.
Taxidea taxus/ American badger	SC	Most abundant in drier open stages of most shrub and forest, herbaceous habitats with friable soils.
Thamnophis hammondii/ Two-striped garter snake	SC	Commonly inhabits perennial and intermittent streams having rocky beds bordered by willow thickets or other dense vegetation.
Vireo bellii pusillus/ Least Bell's vireo	FE, SE	Requires dense understory in riparian woodland. Second-largest population in U.S. occurs at Prado Dam flood control basin and along Chino Creek.

SOURCE: City of Chino, *Chino General Plan Draft EIR* (January 2010).

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C = Candidate species are plants and animals for which the USFWS has sufficient information on their biological status and threats to propose them as endangered or threatened under the federal Endangered Species Act, but for which development of a listing regulation is precluded by other higher priority listing activities.

PR = Proposed revised listing.

CDFW

ST = Threatened = "A species 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 Act" (California Endangered Species Act).

SE = Endangered = "A species is endangered when its prospects of survival and reproduction are in immediate jeopardy from one or more causes."

SC = Species of Special Concern

Regulatory Framework

Federal

Endangered Species Act

The Federal Endangered Species Act of 1973 (FESA), as amended, was promulgated to protect and conserve any species of plant or animal that is endangered or threatened with extinction and the habitats in which these species are found. "Take" of endangered species is prohibited under FESA Section 9. Take, as defined under the FESA, means to "harass, harm, pursue, hunt, wound, kill, trap, capture, collect, or attempt to engage in any such conduct." FESA Section 7 requires federal agencies to consult with the US Fish and Wildlife Service (USFWS) on proposed federal actions that may affect any endangered, threatened, or proposed (for listing) species or critical habitat that may support the species. FESA Section 4(a) requires that critical habitat be designated by the USFWS "to the maximum extent prudent and determinable, at the time a species is determined to be endangered or threatened."

Critical habitat consists of specific areas, both occupied and unoccupied by a federally protected species, that are essential to the conservation of a listed species and that may require special management considerations or protection. The location of a proposed project within critical habitat typically warrants a habitat assessment and, if suitable habitat is present, focused (protocol) surveys to determine presence or absence of the listed species. Any project involving a federal agency, federal monies, or a federal permit that falls within an area designated as critical habitat requires the project proponent to consult with the USFWS regarding potential impacts to the listed species and conservation measures to offset identified impacts.

Critical habitat is formally designated by USFWS to provide guidance for planners/managers and biologists with an indication of where suitable habitat may occur and where high priority of preservation for a particular species should be given. Critical habitat receives protection under Section 7 of the act through the prohibition against destruction or adverse modification of critical habitat with regard to actions carried out, funded, or authorized by a federal agency. Federal agencies and proponents of other projects involving federal funding or permits that are proposing projects within critical habitat are required to consult with USFWS as to the impacts such projects may have on protected species, and mitigation for any such impacts. FESA Section 10 provides the regulatory mechanism that allows the incidental take of a listed species by private interests and nonfederal government agencies during lawful activities. Habitat conservation plans (HCPs) for the impacted species must be developed in support of incidental take permits for nonfederal projects to minimize impacts to the species and develop viable mitigation measures to offset the unavoidable impacts.

Migratory Bird Treaty Act

The Migratory Bird Treaty Act of 1918 (MBTA) is the domestic law that affirms and implements the United States' commitment to four international conventions with Canada, Japan, Mexico, and Russia for the protection of shared migratory bird resources. The MBTA governs the taking, killing, possession, transportation, and importation of migratory birds, and their eggs, parts, and nests. It prohibits the take, possession, import, export, transport, sale, purchase, barter, or offering of these activities, except under a valid permit or as permitted in the implementing regulations. USFWS administers permits to take migratory birds in accordance with the regulations promulgated by the MBTA.

Clean Water Act, Sections 401 and 402

Federal Clean Water Act (CWA) Section 401(a)(1) specifies that any applicant for a federal license or permit to conduct any activity that may result in any discharge into navigable waters shall provide the federal permitting agency a certification, issued by the state in which the discharge originates, that any such discharge will comply with the applicable provisions of the CWA. In California, the applicable Regional Water Quality Control Board (RWQCB) must certify that the project will comply with water quality standards. Permits requiring Section 401 certification include USACE Section 404 permits and National Pollutant Discharge Elimination System (NPDES) permits issued by the U.S. Environmental Protection Agency (USEPA) under CWA Section 402. NPDES permits are issued by the applicable RWQCB. The City of Chino is within the jurisdiction of the Santa Ana RWQCB (Region 8).

Clean Water Act, Section 404

The United States Army Corps of Engineers (USACE) regulates discharges of dredged or fill material into waters of the United States1 including wetlands and non-wetland bodies of water that meet specific criteria. Pursuant to CWA Section 404, a permit is required for any filling or dredging in waters of the US. The permit review process entails an assessment of potential adverse impacts to USACE wetlands and jurisdictional waters, wherein the USACE may require mitigation measures. Where a federally listed species may be affected, a Section 7 consultation with USFWS may be required. If there is potential for cultural resources to be present, Section 106 review may be required. Also, where a Section 404 permit is required, a Section 401 Water Quality Certification would also be required from the RWQCB.

State

California Endangered Species Act

The California Endangered Species Act (CESA) generally parallels the main provisions of the FESA and is administered by the California Department of Fish and Wildlife (CDFW). Its intent is to prohibit take and protect state-listed endangered and threatened species of fish, wildlife, and plants. Unlike its federal counterpart, CESA also applies the take prohibitions to species petitioned for listing (state candidates). Candidate species may be afforded temporary protection as though they were already listed as threatened or endangered at the discretion of the Fish and Wildlife Commission. Unlike the FESA, CESA does not include listing provisions for invertebrate species. Under certain conditions, CESA has provisions for take through a 2081 permit or memorandum of understanding. In addition, some sensitive mammals and birds are protected by the state as Fully Protected Species. California Species of Special Concern are species designated as vulnerable to extinction due to declining population levels, limited ranges, and/or continuing threats. Known and recorded occurrences of sensitive species are listed on the CDFW's California Natural Diversity Data Base (CNDDB) project. Informally listed taxa are not protected per se, but warrant consideration in the preparation of biological resources assessments.

California Fish and Wildlife Code, Section 1600

California Fish and Wildlife Code Section 1600 requires that a project proponent notify the CDFW of any proposed alteration of streambeds, rivers, and lakes. The intent is to protect habitats that are important to fish and wildlife. CDFW may review a project and place conditions on the project as part of a Streambed Alteration Agreement. The conditions are intended to address potentially significant adverse impacts within CDFW's jurisdictional limits.

Regional

There are no regional regulations that pertain to biological resources.

Local

Chino General Plan

The Chino General Plan policies that are applicable to biological resources[3] are as follows:

Policy OSC-1.1 **P1.** The City shall ensure that new development meets all federal, State, and regional regulations for habitat and species protection.

P2. The City shall protect and enhance riparian habitats along Chino and Cucamonga/Mill Creeks, and the Cypress and Magnolia Channels, as well as their relationship to adjacent water bodies, such as the Santa Ana River.

P3. The City shall encourage private agricultural landowners to maintain or establish areas that provide natural habitat through wildlife-compatible farm management practices.

P4. The City shall require new developments to incorporate native vegetation into landscape plans and discourage the use of non-native species. Species known to be invasive according to the California Invasive Plant Inventory may not be used.

P5. The City shall promote conservation and preservation easements that protect habitat areas, habitat corridors, and sensitive biological resources.

P6. The City shall support the efforts of a land conservancy, selected pursuant to the requirements of the Resource Management Plan, in the conservation of open space via the establishment of ecological reserves.

P7. The Resource Management Plan for The Preserve shall continue to be implemented and expanded as necessary to achieve its stated purpose of fulfilling the mitigation measures included in The Preserve Specific Plan EIR.

Policy OSC-1.2 **P1.** The City shall require detailed biological assessments, including mitigation plans if necessary, prior to approval of all new development projects in areas with a potential to accommodate special status species and/or sensitive habitat.

P2. The City shall continue to support and uphold the policies in the Resource Management Plan for The Preserve that describe areas to be left as open space, serving as buffers to other adjacent areas described for conservation.

P3. In places where sensitive species have been identified, the City shall require cluster development and conservation subdivision design to minimize the impacts of urban development.

Resource Management Plan

A Resource Management Plan for The Preserve was prepared by the City of Chino to mitigate impacts on biological resources associated with implementation of The Preserve Specific Plan. The Resource Management Plan provides the framework for coordinating the City's actions with other agencies, including the County of San Bernardino, the CDFW, the USFWS, the USACE, and associated water districts. It is intended to protect biological resources identified in The Preserve Specific Plan, including

[3] These policies are not a complete listing of all policies contained in General Plan; those policies that would be most applicable to the proposed project are included here.

burrowing owl habitat, raptor foraging habitat, migratory bird and waterfowl habitat, federally- and State-listed species, waters of the U.S., waters of California and other water resources available to wildlife.

Project Impact Evaluation

Thresholds of Significance

The following thresholds of significance are based on the 2012 CEQA Guidelines Appendix G. For purposes of this EIR, implementation of the San Bernardino County Regional GHG Reduction Plan might have a significant adverse impact on biological resources if it would do any of the following:

- 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 Wildlife or U.S. Fish and Wildlife Service
- 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 Wildlife or U.S. Fish and Wildlife Service
- Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means
- 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
- Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance
- Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan

Analytic Method

The following analysis reviews potential impacts to biological resources within the City of Chino.

Effects Not Found to Be Significant

Threshold	Would the project 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 Wildlife or U.S. Fish and Wildlife Service?

Implementation of the Regional Reduction Plan would not directly result in removal of vegetation or wildlife in the City because the Regional Reduction Plan does not confer entitlements for development. The Regional Reduction Plan does include an increase in renewable energy sources within the City. Renewable energy generation facilities could potentially be built on vacant land that might contain habitat.

The various plant and wildlife species residing within the City, including special-status species are listed above in Table 4.3.4-1 and Table 4.3.4-2. Impacts to specific special-status species most likely to be affected by renewable power generation facilities are discussed below.

Least Bell's Vireo and Southwestern Willow Flycatcher

Currently, all areas within the 100-year floodplain below the 566-foot elevation line where areas of riparian trees and shrubs occur or may become established as a result of natural floodplain processes are designated as least Bell's vireo and southwestern willow flycatcher critical habitat by the USFWS.

Areas within The Preserve Chino Sphere of Influence—Subarea 2 Final EIR—March 25, 2003, hereafter referred to as The Preserve EIR have also been identified as least Bell's vireo and southwestern willow flycatcher critical habitat. The Preserve Master Plan EIR states that areas that support potential habitat are designated as open space and do not allow urban development. Therefore, no significant impacts are expected in The Preserve.

Areas in the Edgewater Communities project have been identified as containing, or having the potential to contain, least Bell's vireo habitat. The Edgewater Communities EIR finds that impacts to the least Bell's vireo that occupy habitat associated with Mill Creek are potentially significant, but finds these impacts to be ***less than significant after mitigation***. In addition, the Edgewater Communities EIR states that the project site plan contains measures to avoid and buffer least Bell's vireo critical habitat. However, renewable energy projects would have less-than-significant impacts on these species due to independent CEQA review and compliance with the requirements in The Preserve and Edgewater Communities EIRs.

Delhi Sands Giant Flower-Loving Fly

The Recovery Plan for the Delhi sands giant flower-loving fly (DSF), prepared by the USFWS, indicates that areas where Delhi sands are present may provide suitable restorable habitat conditions. A remnant of the Delhi sands series soils is found within the extreme northeasterly section of The Preserve, east of the Chino Airport. There are no reports that indicate DSF occupy this area. The majority of DSF habitat that once occupied this section of the City has been eliminated by long-standing agricultural land uses, development and invasive exotic vegetation. The long-term goal of the recovery plan is to protect and restore existing and potentially suitable habitat within each of the three Recovery Units (Colton, Jurupa, and Ontario) and to provide links to suitable potentially restorable habitat outside of these Recovery Units. While most of the City is not located within any of the Recovery Units, The Preserve Specific Plan is located within the Ontario Recovery Unit. The Delhi sands remnant within The Preserve is not located adjacent to the existing habitat conservation area in Ontario, nor is this remnant area close enough to be considered part of a movement and dispersal corridor. If restored, this area would be isolated and therefore would not contribute to the recovery of DSF. Additionally, per the Recovery Plan for this species, restoration of unoccupied habitat depends entirely on the voluntary participation of landowners.

Under the thresholds of significance, if DSF is found to occupy the remnant Delhi sands within The Preserve area, impacts to the DSF would be considered significant. Although protocol surveys have not been conducted within this area of The Preserve, it appears that there is no reasonable potential for the area to be occupied by DSF due to extensive long-standing agricultural land uses. This area is likely to

remain uninhabitable without costly and long-term restoration measures. Numerous protocol level inventories for DSF in the adjacent cities and communities have been negative. These inventories have included the cities of Rancho Cucamonga, Ontario, and Fontana as well as the unincorporated Mira Loma area of Riverside County. Due to the existing conditions stated above, renewable power generation facilities would have a ***less-than-significant*** impact on the DSF.

Raptors and Migratory Birds

Much of the agricultural lands and other open space within the southern part of the City provide roosting and foraging habitat for populations of burrowing owls, foraging raptors and migratory birds, and waterfowl. The loss of portions of this agricultural open space would involve a loss of 2.2 percent of suitable raptor habitat in the region, which would not have a significant adverse effect on regional raptor populations, except for burrowing owls. The loss of agricultural open space would have an adverse effect on the local burrowing owl population. The Resource Management Plan for The Preserve includes extensive mitigation measures to lessen the impacts of development in The Preserve area on burrowing owls. These mitigations measures include:

- **Conservation Area**—A 300-acre conservation area will be established to provide burrowing owl habitat. A weed removal program will be established for this area to create high-quality raptor foraging habitat. Twenty artificial burrowing owl nesting sites will be constructed on the site. Stands of trees will be planted to provide burrowing owl habitat.
- **Relocation**—If burrowing owls are found on any development site, the developer will be required to follow CDFW burrowing owl relocation protocols, including the creation of artificial burrows.
- **Existing Windrows**—Existing windrows that provide raptor habitat will be incorporated into the design of future development wherever practical. If incorporated windrows are not practical, the developer will provide replacement windrow trees as specified by an ornithologist specializing in raptor biology.

The mitigation measures listed above would potentially reduce the effects of development on raptors, including burrowing owls. However, The Preserve EIR finds that this impact would remain significant after mitigation.

The Edgewater Communities EIR also finds that burrowing owls would be affected by future development in the Edgewater Communities project. However, the following mitigation measures contained in the Edgewater Communities EIR are expected to reduce impacts to burrowing owls to a less-than-significant level:

- Establish 30 acres of restored native grassland habitat as a conservation easement and deed it to a land stewardship organization.
- Provide a planting plan to establish and manage vegetation for three detention basins and perimeter slopes.
- Avoid burrowing owls by 75 meters during the nesting season and by 50 meters outside of the nesting season. Do not disturb occupied burrows during the nesting season.
- Use passive relocation techniques if burrowing owls must be moved away from disturbance areas.

- Conduct a 30-day preconstruction survey for burrowing owls to map all occupied burrows and develop a strategy to avoid harm resulting from project construction.
- Submit a burrowing owl relocation and habitat management plan prior to passive relocation.

Implementation of the proposed Regional Reduction Plan has the potential to adversely affect burrowing owls. However, these impacts are disclosed and evaluated in The Preserve EIR and Edgewater Communities EIR. The Regional Reduction Plan would not result in impacts beyond those analyzed in The Preserve and Edgewater Communities EIR. Therefore, impacts to raptors and migratory birds would be ***less than significant***, and no further mitigation is required.

Loggerhead Shrike

The Edgewater Communities EIR finds that the permanent loss of nesting and foraging habitat for loggerhead shrike, a California Species of Special Concern, would be potentially significant. The Edgewater Communities EIR contains a mitigation measure to compensate for this loss of habitat by enhancing open space areas with native shrubs that are suitable as nest sites. The Edgewater Communities EIR finds that this mitigation measure would reduce this impact to a less-than-significant level. Implementation of the proposed Regional Reduction Plan has the potential to adversely affect loggerhead shrike. However, these impacts are disclosed and mitigated in the Edgewater Communities EIR. The Regional Reduction Plan would not result in impacts beyond those analyzed in the Edgewater Communities EIR. Therefore, impacts to loggerhead shrike would be less than significant.

Western Yellow-Billed Cuckoo

The western yellow-billed cuckoo is designated as endangered by the State of California and is a candidate for listing at the federal level. Data for the 2009 CNDDB indicates there is a 1931 record for the western yellow-billed cuckoo in an area with a 1-mile radius in the northern portion of the City. This area is centered near the intersection of Central Avenue and Riverside Drive, and is largely built out, with the exception of a small number of scattered vacant parcels and three parcels that are currently in agricultural use. Development has already been proposed and approved for the agricultural parcels in this area, and future development on these agricultural lands has already undergone separate, project-level environmental review. The vacant parcels in this area, due to their small size relative to other parcels and their location adjacent to built out parcels, are not potentially suitable habitat for this species, which consists of extensive, mature, native riparian forests. Due to the existing conditions stated above, renewable power generation facilities would have a less-than-significant impact on western yellow-billed cuckoo.

For all other potential special-status and sensitive species in the City, renewable energy projects considered for approval on vacant land under the Regional Reduction Plan, would be required to provide independent CEQA and need to determine whether there is potential habitat on-site for sensitive species. If potential habitat were found on-site, focused surveys for those sensitive species potentially present would be required. If sensitive species were found, the project proponent would be required to consult with the CDFW regarding impacts to sensitive species and ensuing mitigation. Mitigation for impacts to sensitive species is often in the form of acquisition or restoration of habitat, on-site or off-site, at a ratio to the area of impacted land that would be determined by the CDFW or USFWS. For projects proposed

by federal agencies, or projects that would involve federal permits or funding, and that are sited within critical habitat for a listed species, the project proponent would be required under the FESA to consult with the USFWS regarding impacts and mitigation respecting listed species. Projects in The Preserve or Edgewater area would be required to comply with the plan's mitigation measures.

After compliance with requirements of the California and federal endangered species acts, including requirements of the USFWS regarding critical habitat, as well as mitigation fees that will be paid by projects in Chino, and acquisition and management of habitat using those fees, implementation of the proposed Regional Reduction Plan would not have substantial adverse impacts on sensitive animal species. Therefore, this impact would be ***less than significant***. No mitigation is required.

Threshold	Would the project 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 Wildlife or U.S. Fish and Wildlife Service?

Implementation of the Regional Reduction Plan would not directly result in removal of vegetation or wildlife in the City because the Regional Reduction Plan does not confer entitlements for development. The Regional Reduction Plan does include an increase in renewable energy sources within the City. Renewable energy generation facilities could potentially be built on vacant land that might contain riparian habitat.

As stated previously, individual projects undergoing environmental review under CEQA would be required to determine whether there is potential habitat onsite for sensitive species. If sensitive species were found onsite, the project proponent would be required to consult with the CDFW regarding impacts to sensitive species and ensuing mitigation. In conclusion, projects affecting riparian habitat in the City would be required through the existing permitting process to mitigate potential impacts to riparian areas. Consequently, impacts would be ***less than significant***. No mitigation is required.

Threshold	Would the project have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

Existing wetlands are concentrated in the southern portions of the City, especially within The Preserve Specific Plan area. However, moderate-sized to very small wetlands can be present or develop nearly anywhere there is sufficient water at or just below the ground surface. Though wetlands in open spaces typically provide higher functions and values, they are not restricted to such areas.

Implementation of the Regional Reduction Plan includes energy efficiency standards for new development, energy efficiency retrofits for existing buildings, water conservation measures, transportation measures to reduce trips and vehicle miles traveled, waste diversion programs. Implementation of these types of reduction measures will not affect bodies of water or wetlands.

Increased renewable energy generation and methane capture systems will also develop during implementation of the proposed Regional Reduction Plan. However, these types of projects are not likely to affect bodies of water or wetlands. In the unlikely event that a methane capture system or renewable

energy project results in impacts to waters of the state, that project would be subject to approval by the CDFW through Streambed Alteration Agreements and would require mitigation as determined by the CDFW for any consequent impacts. Consequently, impacts would be ***less than significant***. No mitigation is required.

Threshold	Would the project 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?

Wildlife movement in Chino is generally constrained by traffic on major roadways such as Highway 71, Highway 60, Euclid Avenue, and Central Avenue. Traffic and limited habitat make wildlife movement from the south to the north of the City unlikely. However, wildlife species travel between the Prado Basin, the open spaces in Chino Hills, the Santa Ana River watershed and the interior regions of Riverside and San Bernardino counties. Wildlife species use the open spaces in the southernmost portion of The Preserve to move between these areas. This southernmost portion of the City also provides year-round water supplies and foraging areas. In addition, the Resource Management Plan for The Preserve would require development to maintain an urban buffer or transition area in the southern most portions of the development in The Preserve area. This buffer area would protect the open spaces to the south for use as wildlife habitat and for the movement of wildlife species.

There are trees and shrubs scattered throughout the City that may be used for nesting or roosting by migrating birds. The Regional Reduction Plan would not grant specific entitlements for development; therefore, implementation of the Regional Reduction Plan would not directly impact vegetation that could be used by migrating birds. Development of renewable energy generation projects under the Regional Reduction Plan would be required to comply with the federal MBTA. Therefore, the Regional Reduction Plan is not anticipated to have substantial adverse impacts to migratory birds and impacts would be ***less than significant***. No mitigation is required.

Threshold	Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

Implementation of the Regional Reduction Plan would be required to comply with The Chino General Plan policies and Chino Municipal Code Chapter 12.16. The Chino General Plan Policies OSC-1.1 P1 through P7 and OSC-1.2 P1 through P3 support the protection of biological resources. Projects that implement the Regional Reduction Plan would be required to comply with Municipal Code Chapter 12.16 protects important trees in Chino. Consequently, impacts would be ***less than significant***. No mitigation is required.

Threshold	Would the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

The Western Riverside County Multiple Species Habitat Conservation Plan includes habitat restoration goals for western Riverside County. Chino lies outside of the MSHCP plan area; therefore, the proposed Regional Reduction Plan would not conflict with the plan. Second, the County of San Bernardino Riparian Plant Conservation Ordinance protects riparian habitat on private land within the

unincorporated areas of San Bernardino County, including the Chino SOI. This ordinance prohibits the removal of any vegetation within 200 feet of the bank of a stream or in an area indicated as a protected riparian area. Future development in the Chino's SOI must comply with these regulations. Third, The Preserve Resource Management Plan describes areas to be left as open space serving as buffers to other adjacent areas described for conservation. Renewable energy generation facilities proposed within The Preserve area must comply with the plan's requirements.

As stated previously, individual projects implementing the Regional Reduction Plan such as renewable energy generation facilities would need to undergo environmental review under CEQA and would be required to determine whether there is potential habitat onsite for sensitive species. If sensitive species were found onsite, the project proponent would be required to consult with the CDFW regarding impacts to sensitive species and ensuing mitigation. Projects in The Preserve or Edgewater area would be required to comply with the plan's mitigation measures. Therefore, impacts would be ***less than significant***. No mitigation is required.

Cumulative Impacts

Threshold	Would the project 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 Wildlife or U.S. Fish and Wildlife Service?

As discussed at a project-level analysis, the Regional Reduction Plan does not directly result in removal of vegetation or wildlife in the City because the Regional Reduction Plan does not confer entitlements for development. The Regional Reduction Plan does include an increase in renewable energy sources within the City. Renewable energy generation facilities could potentially be built on vacant land that might contain habitat. After compliance with requirements of the California and federal endangered species acts, including requirements of the USFWS regarding critical habitat, renewable energy facilities built during implementation of the proposed Regional Reduction Plan would not have substantial adverse impacts on sensitive animal species at a project-level. Because the acquisition and management of critical habitat units are accomplished on a regional level and individual projects implementing the Regional Reduction Plan would be in compliance with these regional level habitat units, the project's ***cumulative impact would also be less than significant***.

Threshold	Would the project 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 Wildlife or U.S. Fish and Wildlife Service?

Increased renewable energy generation and methane capture systems could be proposed during implementation of the proposed Regional Reduction Plan. As stated previously, individual projects undergoing environmental review under CEQA would be required to determine whether there is potential habitat onsite for sensitive species. If sensitive species were found onsite, the project proponent would be required to consult with the CDFW regarding impacts to sensitive species and ensuing mitigation. Projects in The Preserve or Edgewater area would be required to comply with the plan's

mitigation measures. In conclusion, projects affecting riparian habitat in the City would be required through the existing permitting process to mitigate potential impacts to riparian areas. This existing permitting process substantially limits degradation of habitat on a regional level. Therefore, on a cumulative level, implementation of the proposed project would not substantially degrade the riparian habitat on a regional basis, and the ***cumulative impact would be less than significant***.

Threshold	Would the project have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

Increased renewable energy generation and methane capture systems could be proposed during implementation of the proposed Regional Reduction Plan. However, these types of projects are not likely to affect bodies of water or wetlands. In the unlikely event that a methane capture system or renewable energy project results in impacts to waters of the state, that project would be subject to approval by the CDFW through Streambed Alteration Agreements and would require mitigation as determined by the CDFW for any consequent impacts. With Streambed Alteration Agreements, impacts to water bodies would be minimal and not result in cumulative impacts. The ***cumulative impact would be less than significant***.

Threshold	Would the project 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?

Wildlife species travel between the Prado Basin, the open spaces in Chino Hills, the Santa Ana River watershed and the interior regions of Riverside and San Bernardino counties. However, implementation of the Regional Reduction Plan will not impair these areas in the City as wildlife movement corridors. Development of renewable energy generation projects under the Regional Reduction Plan would be required to comply with the federal Migratory Bird Treaty Act (MBTA). Therefore, the Regional Reduction Plan is not anticipated to have substantial adverse impacts to migratory birds. Because the Regional Reduction Plan does has no impact on wildlife corridors at a project-level, the Regional Reduction Plan will not participate in a cumulative impact. Furthermore, compliance with the MBTA reduces both potential project-level and cumulative impacts to migratory birds to less than significant. Consequently, the ***cumulative impact would be less than significant***.

Threshold	Would the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

Increased renewable energy generation and methane capture systems could be proposed during implementation of the proposed Regional Reduction Plan and are the only types of implementing projects within the Regional Reduction Plan that have the potential to be built in and conflict with adopted habitat conservation plans. There are two regional habitat conservation plans that have areas within the City SOI: The County of San Bernardino Riparian Plant Conservation Ordinance and The Resource Management Plan. Those types of projects that are proposed within these plan areas must comply with the plan's requirements. Therefore, the Regional Reduction Plan will conform to these

habitat conservation plans at a project-level. Because these are regional habitat conservation plans, compliance at a project-level also reduces cumulative impacts to less than significant. Therefore, the ***cumulative impact would be less than significant***.

References

Chino, City of. 2010a. *City of Chino General Plan*, July.

———. 2010b. *City of Chino General Plan Draft Environmental Impact Report*, January.

San Bernardino Associated Governments (SANBAG). 2012. *San Bernardino County Regional Greenhouse Gas Reduction Plan*. Draft. Prepared by ICF International, December.

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4.3.5 Cultural Resources

This section of the EIR analyzes the potential environmental effects on cultural resources in the City of Chino from implementation of the Regional Reduction Plan. Data for this section were taken from the Chino General Plan (July 2010a) and associated environmental impact report (January 2010b). Full reference-list entries for all cited materials are provided at the end of this section.

No comment letters addressing cultural resources were received in response to the notice of preparation (NOP) circulated for the Regional Reduction Plan.

Environmental Setting

Cultural resources are frequently defined in terms of tangible materials attributed to a culture. These include districts, sites, structures, artifacts, and other evidence of human use considered important to a culture or community for scientific, traditional, religious, or other reasons. Resources may be historical, archaeological, architectural, or archival in nature. Cultural resources may also consist of less tangible attributes, such as landscapes considered sacred to particular groups.

Prehistoric Setting

The City of Chino lies within an area known to contain prehistoric archaeological materials, which include the material culture reflective of groups that preceded Euro-American contact and settlement. The prehistoric setting for this area includes several thousand years of land use and resource adaptation evidenced by artifacts and features throughout the City, but particularly near Chino Creek. Archaeological resources and oral histories originating with early settlers in Chino indicate that Chino was a stopping-point between inland areas and the ocean. In addition, the area was the site of a temescal or hot bath for a thriving community in the Chino Valley (Chino 2010b).

Ethnohistoric Setting

The Chino area includes artifacts associated with the Native American occupation of the region, and is located in and near the ethnographically mapped boundaries of several groups, including the Luiseño, Gabrieliño, Serrano and Cahuilla. This area is located near the northwestern-most portion of documented Cahuilla territory, mapped as extending just beyond the City of Riverside. The Luiseño traditional use area is mapped as extending from the Pacific Ocean inland to Lake Elsinore and Palomar Mountain in the east, and extending from Agua Hedionda in the south to Aliso Creek in the north. The Gabrieliño tribal territory is mapped as extending north from Aliso Creek to just beyond Topanga Canyon along the Pacific Coast, and inland to the City of San Bernardino. The Serrano traditional use area is then mapped to the northeast and east of Gabrieliño lands, encompassing much of the San Bernardino Mountains from the Cajon Pass in the west, past modern Twentynine Palms in the east (Heizer 1978).

Historic Setting

The history of the modern City of Chino relates to the Mission San Gabriel, established in 1771 in the Los Angeles area. In the early decades of the nineteenth century, the Missions began establishing ranchos

for the purpose of expanding their agricultural holdings. The Chino area and vicinity was affiliated with the Rancho Santa Ana del Chino, which was established by the Mission San Gabriel. Portions of modern Chino were used for grazing of the Mission's cattle (Chino 2010b).

Mexico achieved independence from Spain in 1821, and the former mission lands were secularized and subdivided into land grants under a law adopted by the Mexican congress in 1833. The Rancho Santa Ana del Chino was comprised of 47,000 acres, and was awarded in a grant in 1841 by Governor Alvarado to Don Antonio Maria Lugo.

California was ceded to the U.S. under the Treaty of Guadalupe Hidalgo at the end of the Mexican-American War, and thereafter, Mexican ranchos were subdivided or sold. In 1887, Richard Gird set out to transform the Rancho into a farming and industrial community. Gird subdivided the Rancho into residential and business lots, and renamed the town Chino. The remaining Native Americans in the area were moved by Gird to a central location along Chino Creek. In the latter portion of the nineteenth century, Chino was connected to the Southern Pacific railroad and the town's agricultural production of beets began to flourish (Chino 2010b).

By 1899, Chino came under the ownership of the Chino Land and Water Company. The Water Company ran a large sales promotion, and spurred the development of homes and water lines. In addition, they also influenced the development of more agricultural uses and dairy farms. In this manner, since the modern City's inception, dairy farming, crop production and animal grazing have been the dominant agricultural activities (Chino 2010b).

Historical Resources in Chino

Designation Process

Significant cultural resources can include archaeological resources, historical structures, historical districts, traditional cultural properties, and landscapes. Designation can occur at the federal level in the National Register of Historic Places (NRHP), at the state level in the California Register of Historical Resources (CRHR), and can be considered historic structures pursuant to the definitions included in City of Chino Municipal Code Title 8 (Health and Safety), Section 8.60.050. The criteria for consideration as an NRHP or CRHR resource, as well as the definition for a historic structure in the City are further discussed below, in the Regulatory Framework.

Historic Resources Listed on the National Register of Historic Places

The NRHP is the nation's official list of buildings, structures, objects, sites, and districts worthy of preservation, and the NRHP recognizes resources of local, state, and national significance. Two resources in the City of Chino are listed on the NRHP:

- Yorba-Slaughter Adobe
- Moyse Building

Historic Resources Listed on the California Register of Historical Resources

The State Historic Resources Commission has designed the CRHR for use by state and local agencies, private groups, and citizens to identify, evaluate, register, and protect California's historical resources.

The CRHR is the authoritative guide to the state's significant historical and archaeological resources. The CRHR program encourages public recognition and protection of resources of architectural, historical, archaeological, and cultural significance; identifies historical resources for state and local planning purposes; determines eligibility for state historic preservation grant funding; and affords certain protections under the CEQA. Properties listed in the NRHP are automatically listed in the CRHR and certain CHLs and PHIs are also listed or considered eligible for the CRHR. Two properties in the City of Chino (also listed on NRHP above) are also on the CRHR.

California Historical Landmarks and Points of Historical Interest

CHLs are sites, buildings, features, or events that are of statewide significance and have anthropological, cultural, military, political, architectural, economic, scientific or technical, religious, experimental, or other value. In order to be considered a CHL, the landmark must meet at least one of the following criteria: (1) associated with events that have made a significant contribution to the broad patterns of local or regional history or the cultural heritage of California or the United States; (2) associated with the lives of persons important to local, California, or national history; (3) embodies the distinctive characteristics of a type, period, region, or method of construction; represents the work of a master; or possesses high artistic values; and (4) has yielded, or has the potential to yield, information important to the prehistory or history of the local area, California, or the nation.

If a site is primarily of local or countywide interest, it may meet the criteria for the California PHI Program. PHIs are sites, buildings, features, or events that are of local (city or county) significance and have anthropological, cultural, military, political, architectural, economic, scientific or technical, religious, experimental, or other value. To be eligible for designation as a PHI, a resource must meet at least one of the following criteria: (1) the first, last, only, or most significant of its type in the local geographic region (city or county); (2) be associated with an individual or group having a profound influence on the history of the local area; (3) a prototype of, or an outstanding example of, a period, style, architectural movement or construction; or (4) is one of the more notable works or the best surviving work in the local region of a pioneer architect, designer, or master builder. PHIs designated after December 1997 and recommended by the State Historical Resources Commission are also listed in the CRHR. No historical resource may be designated as both a CHL and a PHI. If a PHI is subsequently granted status as a CHL, the PHI designation will be retired.

The CHLs in Chino are:

- Site of the Rancho Chino Adobe of Isaac Williams
- Yorba-Slaughter Adobe

The PHIs in Chino are:

- Battle of Chino
- Chino Opera House Site

Locally Important Resources in Chino

The City has identified a list of buildings and markers that are considered locally important, but notes that additional important historic era resources and neighborhoods may be present that have not been

formally identified. The following list contains important resources compiled by the Chino Valley Historical Society. The list includes buildings and markers that are considered historically noteworthy.

- **Chino School House Museum**—This building was constructed in 1888 as Chino's first school house. It was originally located near 5th and D Streets, and is now located at 11th and B Streets. It is owned by the Chino Valley Historical Society.
- **Chino Community Building**—The Chino Community Building was constructed by the Work Projects Administration in 1937. It is located at 10th and B Streets.
- **O.J. Newman Residence**—This house was used as a livery stable during the early days of Chino. Located at the southwest corner of 7th and B Streets, the house can be identified by a horse tether ring on a post at the curb.
- **The Gray Building**—This building housed Chino's first school classes and is now used by the Chino Valley Chamber of Commerce. It is located at 13150 7th Street.
- **Constable Tebo Residence**—This was the residence of Constable Tebo, whose son was the first child born in Chino. The home was built in 1910 and it is located at the southwest corner of 6th and B Streets.
- **First National Bank**—This building was originally the First National Bank and is now the Chino Youth Museum. It is located at 13191 6th Street.
- **American Beet Sugar Refinery**—The refinery began operations in 1891 and was used for refining sugar sold throughout the State of California. Only a portion of the building still exists, and it is located at 13613 Central Avenue.
- **Walnut Packing House**—This building was considered the second largest walnut packing house in California, and was in operation from 1920 through 1945. The building is located on the north side of Chino Avenue, just west of Monte Vista Avenue.
- **W. Jacob Schaefer House**—The home, barn, and smoke house of Mr. Schaefer were built in 1889. They are located on the west side of Oaks Avenue, one block south of Schaefer Avenue.
- **Victory Baptist Church**—Located on the southwest corner of San Antonio and Edison Avenues, the structure was built in 1895 and was the site of the original East Side School.
- **Westside School**—Built in 1885, the Westside School was a two-room school house. It is located at 12279 Pipeline Avenue.
- **Gonzales Residence**—The Gonzales residence was built in 1923 and is currently occupied by the Guasti Homestyle Cafe. It is located at 13526 Central Avenue.
- **Yorba-Slaughter Adobe**—Located at 17127 Pomona-Rincon Road, this building and marker is a San Bernardino County-owned facility that operates as a museum. It is a CHL, and is also on the NRHP.
- **Opera House**—Located on the north side of the City Hall building, the former site of Chino's opera house is indicated by a marker. This resource is a PHI.
- **Chino Valley Champion**—Located at 13220 Central Avenue, this site is indicated by a marker.
- **Cornerstone to Chino's First Reservoir**—Located at 17127 Pomona- Rincon Road, the site of Chino's first reservoir is indicated by a marker.

Archaeological Resources in Chino

Archaeological resources are the physical remains of past human activities and can be either prehistoric or historic. Archaeological sites contain significant evidence of human activity. Generally a site is defined by a significant accumulation or presence of: food remains, waste from the manufacturing of tools, tools, concentrations or alignments of stones, modification of rock surfaces, unusual discoloration or accumulation of soil, and/or human skeletal remains. Numerous prehistoric archaeological resources have been identified within the City of Chino, and include villages and/or campsites, food-processing sites, middens, and metates (Chino 2010b).

Paleontological Resources in Chino

Paleontological resources are the fossilized remains of organisms from prehistoric environments found in geologic strata. These are valued for the information they yield about the history of the earth and its past ecological settings. There are two types of resources; vertebrate and invertebrate. These resources are found in geologic strata conducive to their preservation, typically sedimentary formations. Paleontological sites are those areas that show evidence of prehuman activity. Often they are simply small outcroppings visible on the surface or sites encountered during grading. While the sites are important indications, it is the geologic formations that are the most important, since they may contain important, fossils. Potentially sensitive areas for the presence of paleontological resources are based on the underlying geologic formation.

The City of Chino is located in a region comprised of alluvial valley floors, fans and terraces and the basic soil types are young alluvial deposits. Pleistocene alluvium and Holocene alluvium deposits underlying surficial soils in several areas of the City have been identified as having varying potential to yield fossils of importance. Vertebrate land mammal fossils have been discovered in the City, and recovered specimens include fossils of a mammoth, ground sloth, camel, bison, horse and deer (Chino 2010b).

Regulatory Framework

Federal

Federal regulations for cultural resources are primarily governed by National Historic Preservation Act of 1966 (NHPA) Section 106, which applies to actions taken by federal agencies. The goal of the Section 106 review process is to offer a measure of protection to sites that are listed or determined eligible for listing on the NRHP. The criteria for determining NRHP eligibility are found in 36 Code of Federal Regulations (CFR) Part 60. NHPA Section 106 requires federal agencies to take into account the effects of their undertakings on Historic Properties and affords the federal Advisory Council on Historic Preservation a reasonable opportunity to comment on such undertakings. The Council's implementing regulations, "Protection of Historic Properties," are found in 36 CFR Part 800. The NRHP criteria (36 CFR 60.4) are used to evaluate resources when complying with NHPA Section 106. Those criteria state that eligible resources comprise districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association, and any of the following:

(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 possess high artistic values, or that represent a significant distinguishable entity whose components may lack individual distinction
(d) Have yielded or may be likely to yield, information important to history or prehistory

Eligible properties must meet at least one of the criteria and exhibit integrity. Historical integrity is measured by the degree to which the resource retains its historical attributes and conveys its historical character, the degree to which the original fabric has been retained, and the reversibility of changes to the property.

Historic Districts derive their importance from being considered a unified entity, even though they are often composed of a variety of resources. The identity of a district results from the interrelationship of its resources, which can be an arrangement of historically or functionally related properties. A district is defined as a geographically definable area of land containing a significant concentration of buildings, sites, structures, or objects united by past events or aesthetically by plan or physical development. A district's significance and integrity should help determine the boundaries.

Within historic districts, resources are identified as contributing and noncontributing. A contributing building, site, structure, or object adds to the historic associations, historic architectural qualities, or archaeological values for which a district is significant because it was either present during the period of significance, relates to the significance of the district, and retains its physical integrity; or it independently meets the criteria for listing in the NRHP.

Archaeological site evaluation assesses the potential of each site to meet one or more of the criteria for NRHP eligibility based upon visual surface and subsurface evidence (if available) at each site location, information gathered during the literature and records searches, and the researcher's knowledge of and familiarity with the historic or prehistoric context associated with each site.

Paleontological resources are considered under NHPA Section 106 primarily when found in a culturally related context (i.e., fossil shells included as mortuary offerings in a burial or a rock formation containing petrified wood used as a chipped stone quarry). In such instances, the material is considered a cultural resource and is treated in the manner prescribed for the site by Section 106.

The Antiquities Act of 1906 (Title 16, United States Code, Sections 431-433) protects any historic or prehistoric ruin or monument, or any object of antiquity, situated on lands owned or controlled by the Government of the United States from appropriation, excavation, injure or destruction without the permission of the Secretary of the Department of the Government having jurisdiction over the lands on which the antiquities are situated. The California Department of Transportation, the National Park Service, Bureau of Land Management, U.S. Forest Service, and other federal agencies have interpreted objects of antiquity to include fossils. The Antiquities Act provides for the issuance of permits to collect fossils on lands administered by federal agencies and requires projects involving federal lands to obtain permits for both paleontological resource evaluation and mitigation efforts.

The federal Paleontological Resources Preservation Act of 2002 was enacted to codify the generally accepted practice of limiting the collection of vertebrate fossils and other rare and scientifically significant fossils to qualified researchers; these researchers must obtain a permit from the appropriate state or federal agency and agree to donate any materials recovered to recognized public institutions, where they will remain accessible to the public and to other researchers.

State

California Public Resources Code

Under CEQA, public agencies must consider the impacts of their actions on both historical resources and unique archaeological resources. Pursuant to Public Resources Code (PRC) 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." Section 21083.2 requires agencies to determine whether proposed projects would have effects on unique archaeological resources.

Historical resource is a term with a defined statutory meaning (refer to PRC Section 21084.1 and CEQA Guidelines Section 15064.5(a) and (b)). The term applies to any resource listed in or determined to be eligible for listing in the CRHR. The CRHR includes California resources listed in or formally determined eligible for listing in the NRHP, as well as certain California Historic Landmark (CHLs) and Points of Historical Interest (PHIs).

Properties of local significance that have been designated under a local preservation ordinance (local landmarks or landmark districts) or that have been identified in a local historical resources inventory may be eligible for listing in the CRHR and are presumed to be historical resources for purposes of CEQA unless a preponderance of evidence indicates otherwise (PRC Section 5024.1 and CFR Title 14, Section 4850). Unless a resource listed in a survey has been demolished, lost substantial integrity, or there is a preponderance of evidence indicating that it is otherwise not eligible for listing, a lead agency should consider the resource to be potentially eligible for the CRHR.

In addition to assessing whether historical resources potentially impacted by a proposed project are listed or have been identified in a survey process, lead agencies have a responsibility to evaluate them against the CRHR criteria prior to making a finding as to a proposed project's impacts to historical resources (PRC Section 21084.1 and CEQA Guidelines Section 15064.5(a)(3)). In general, a historical resource, under this approach, is defined as any object, building, structure, site, area, place, record, or manuscript that:

(a) Is historically or archeologically significant, or is significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political or cultural annals of California; and

(b) Meets any of the following criteria:

1) Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;

2) Is associated with the lives of persons important in our past;

3) Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or

4) Has yielded, or may be likely to yield, information important in prehistory or history.

(CEQA Guidelines, Section 15064.5(a)(3))

Archaeological resources can sometimes qualify as historical resources (CEQA Guidelines Section 15064.5(c)(1)). In addition, PRC Section 5024 requires consultation with the Office of Historic Preservation when a project may impact historical resources located on state-owned land.

For historic structures, CEQA Guidelines Section 15064.5(b)(3) indicate that a project that follows the Secretary of the Interior (SOI) Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Buildings, or the SOI Standards for Rehabilitation and Guidelines for Rehabilitating Historic Buildings, shall mitigate impacts to a level of less than significant. Potential eligibility also rests upon the integrity of the resource. Integrity is defined as the retention of the resource's physical identity that existed during its period of significance. Integrity is determined through considering the setting, design, workmanship, materials, location, feeling, and association of the resource.

As noted above, CEQA also requires lead agencies to consider whether projects will impact unique archaeological resources. PRC Section 21083.2(g) states that 'unique archaeological resource means 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 that there is a demonstrable public interest in that information.
- Has a special and particular quality such as being the oldest of its type or the best available example of its type.
- Is directly associated with a scientifically recognized important prehistoric or historic event or person.

(PRC Section 21083.2(g))

Treatment options under Section 21083.2 include activities that preserve such resources in place and in an undisturbed state. Other acceptable methods of mitigation under Section 21083.2 include excavation and curation, or study in place without excavation and curation (if the study finds that the artifacts would not meet one or more of the criteria for defining a unique archaeological resource).

Advice on procedures to identify cultural resources, evaluate their importance, and estimate potential effects is given in several agency publications such as the series produced by the Governor's Office of Planning and Research (OPR). The technical advice series produced by OPR strongly recommends that Native American concerns and the concerns of other interested persons and corporate entities, including, but not limited to, museums, historical commissions, associations, and societies, be solicited as part of the process of cultural resources inventory. In addition, California law protects Native American burials, skeletal remains, and associated grave goods regardless of their antiquity and provides for the sensitive treatment and disposition of those remains.

CEQA affords protection to paleontological resources, as CEQA Guidelines indicate that a project would have a significant environmental impact if it would disturb or destroy a unique paleontological resource or site or unique geologic feature. Although CEQA does not specifically define a unique

paleontological resource or site, the definition of a unique archaeological resource (Section 21083.2) can be applied to a unique paleontological resource or site and a paleontological resource could be considered a historical resource if it has yielded, or may be likely to yield, information important in prehistory or history under Section 15064.5 (a)(3)(D).

California Public Resources Code 5097.5

California PRC Section 5097.5 provides protection for cultural and paleontological resources, where PRC 5097.5(a)) states, in part, that:

> No person shall knowingly and willfully excavate upon, or remove, destroy, injure, or deface, any historic or prehistoric ruins, burial grounds, archaeological or vertebrate paleontological site, including fossilized footprints, inscriptions made by human agency, rock art, or any other archaeological, paleontological or historical feature, situated on public lands, except with the express permission of the public agency having jurisdiction over the lands.

California Health and Safety Code Sections 7050.5, 7051, and 7054

California Health and Safety Code Section 7050.5(b) specifies protocol when human remains are discovered. The code states:

> In the event of discovery or recognition of any human remains in any location other than a dedicated cemetery, there shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains until the coroner of the county in which the human remains are discovered has determined, in accordance with Chapter 10 (commencing with section 27460) of Part 3 of Division 2 of Title 3 of the Government Code, that the remains are not subject to the provisions of section 27492 of the Government Code or any other related provisions of law concerning investigation of the circumstances, manner and cause of death, and the recommendations concerning treatment and disposition of the human remains have been made to the person responsible for the excavation, or to his or her authorized representative, in the manner provided in section 5097.98 of the Public Resources Code.

California Public Resources Code Section 5097.98

Section 5097.98 requires the NAHC to notify the most likely descendants regarding the discovery of Native American human remains upon notification by a county coroner. This enables the descendants to inspect the site of the discovery of Native American human remains within 48 hours of notification by the NAHC, and to recommend to the landowner or the person responsible for the excavation work means for treating or disposition, with appropriate dignity, the human remains and any associated grave goods. Further, this section requires the owner of the land upon which Native American human remains were discovered, in the event that no descendant is identified, or the descendant fails to make a recommendation for disposition, or the land owner rejects the recommendation of the descendant, to reinter the remains and burial items with appropriate dignity on the property in a location not subject to further disturbance.

Senate Bill 18

As of March 1, 2005, Senate Bill 18 (Government Code Sections 65352.3 and 65352.4) requires that, prior to the adoption or amendment of a general plan proposed on or after March 1, 2005, a city or county must consult with Native American tribes with respect to the possible preservation of, or the

mitigation of impacts to, specified Native American places, features, and objects located within that jurisdiction.

Regional

San Bernardino County Development Code

The San Bernardino County Development Code defines Cultural Resources Preservation (CP) Overlays. The CP Overlay is established by Development Code Sections 82.01.020 and 82.01.030 and is intended to provide for the identification and preservation of important archaeological resources. The County requires that a proposed project within the CP Overlay includes a report prepared by a qualified professional archaeologist that determines the presence or absence of archaeological and/or historical resources on the project site, as well as appropriate data recovery or protection measures. The CP Overlay may be applied to areas where archaeological and historic sites that warrant preservation are known or are likely to be present, as determined by cultural resources research and/or inventory. In highly sensitive CP Overlay Districts, the local Native American tribe would be notified in the event of uncovering evidence of Native American cultural resources. If requested by the tribe, a Native American Monitor shall be required during such grading or excavation to ensure all artifacts are properly protected and/or recovered (Section 82.12.050).

A Paleontologic Resources (PR) Overlay is also defined by the County under Sections 82.01.020 (Land Use Plan and Land Use Zoning Districts) and 82.01.030 (Overlays) of the Development Code. The PR Overlay may be applied to those areas where paleontological resources are known to occur or are likely to be present (determined through a paleontological records search). Detailed criteria for evaluation of paleontological resources and paleontologist qualifications are described in Development Code Sections 82.20.030 and 82.20.40.

The CP and PR Overlays are applicable to County lands, and no County CP Overlays are located within the City's Sphere of Influence (Chino 2010b).

Local

City of Chino Municipal Code

Title 8 (Health and Safety), Section 60.050 (Definitions), defines historic structures as buildings that are:

1. Listed individually in the NRHP (a listing maintained by the Department of Interior) or preliminarily determined by the Secretary of the Interior as meeting the requirements for individual listing on the NRHP;
2. Certified or preliminarily determined by the Secretary of the Interior as contributing to the historical significance of a registered historic district or a district preliminarily determined by the Secretary to qualify as a registered historic district;
3. Individually listed on a state inventory of historic places in states with historic preservation programs which have been approved by the Secretary of Interior; or
4. Individually listed on a local inventory of historic places in communities with historic preservation programs that have been certified either by an approved state program as determined by the Secretary of the Interior or directly by the Secretary of the Interior in states with approved programs.

Variances may be issued for the repair or rehabilitation of historic structures under Section 8.60.270 (Conditions for Variances).

Chino General Plan

The General Plan goal, objective, policies, and actions that are applicable to cultural resources[4] are as follows:

Goal OSC-7 Preserve Chino's connection to its history.

Objective OSC-7.1 Preserve and enhance historical, paleontological and archaeological resources.

Policy P1 The City shall ensure that identified cultural and historic landmarks and buildings are preserved, unless the City finds that such preservation is economically infeasible.

Policy P2 The City shall require the architectural details and design elements of historic structures to be preserved during renovations and remodels.

Policy P3 In the event that unknown archaeological or paleontological resources are discovered during construction, the Planning Division shall be notified immediately. All construction shall stop and an archaeologist meeting the Secretary of the Interior's Professional Qualifications Standards in prehistoric or historical archaeology should be retained to evaluate the discovered resources and recommend appropriate action.

Policy P4 If Native American artifacts are discovered on a site, the City shall consult representatives of the Native American community to ensure the respectful treatment of Native American sacred places.

Policy P5 Where applicable, any human remains discovered during implementation of public and private projects within the Planning Area should be treated with respect and dignity and should fully comply with the California Native American Graves Protection and Repatriation Act and other appropriate laws.

Policy P6 Where applicable, the City shall support access to and ceremonial use by Native American religious practitioners of Native American sacred sites located in Chino.

Policy P7 The City shall continue to consult with tribes as required by Senate Bill 18. In so doing, the City shall use appropriate procedures to accommodate tribal concerns when a tribe has a religious prohibition against revealing precise information about the location or practice at a particular sacred site.

[4] These policies are not a complete listing of all policies contained in the General Plan; those policies that would be most applicable to the proposed project are included here.

Action A1 Work with the Chino Valley Historical Society to develop a historical resources survey, including identifying key historic buildings to be prioritized for public use and preservation.

Action A2 Study neighborhoods with a significant number of buildings over 50 years old to determine whether historic districts should be established.

Action A3 Work with the Chino Valley Historical Society and the Chino Valley Unified School District to find opportunities through community events to educate children about the City's history.

Project Impact Evaluation

Thresholds of Significance

The following thresholds of significance are based on the 2012 CEQA Guidelines Appendix G. For purposes of this EIR, implementation of the San Bernardino County Regional GHG Reduction Plan might have a significant adverse impact on cultural resources if it would do any of the following:

- Cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5
- Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5
- Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature
- Disturb any human remains, including those interred outside of formal cemeteries

Analytic Method

The following analysis considers the presence and absence of historical, archaeological, or paleontological resources within the City. Historical resources include any resource listed in or determined to be eligible for listing in the NRHP, CRHR, certain CHLs and PHIs, as well as resources of regional or local significance that have been identified in a local historical resources inventory. Such regional or locally designated resources are presumed to be historical resources for purposes of CEQA unless a preponderance of evidence indicates otherwise. The presence of historical, archaeological, or paleontological resources is then considered against the potential impacts on such resources from implementation of the Regional Reduction Plan. To gather information on known historical resources within Chino, various City planning documents were reviewed, and searches were conducted on-line for resources listed in the NRHP and CRHR (Chino 2010a; Chino 2010b; and OHP 2013).

Effects Not Found to Be Significant

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

The City is known to have been home to Native American groups prior to settlement by Euro-Americans. Archaeological materials associated with occupation of the planning area are known to exist

and have the potential to provide important scientific information regarding history and prehistory. Ground-disturbing activities, particularly in areas that have not previously been developed with urban uses ("native soils," which include agricultural lands), have the potential to damage or destroy historic age or prehistoric archaeological resources that may be present on or below the ground surface. Such resources may be considered as historical resources, as defined in Section 15064.5(a)(3)(D) ("[h]as yielded, or may be likely to yield, information important in history or prehistory"). In addition to the status of archaeological resources as historical resources, a resource may also be a "unique archaeological resource," as defined in CEQA Section 21083.2(g)(1)–(3). Further, archaeological resources are often of cultural or religious importance to Native American groups, particularly if the resource includes human and/or animal burials. The potential for impacts on archaeological resources as a result of the Regional Reduction Plan is considered low, as project implementation would not result in extensive ground disturbance in previously undisturbed soils.

Policies in the Chino General Plan incorporate specific measures to protect and preserve cultural resources into the City planning and environmental review processes. The General Plan policies relevant to this impact are as follows:

Policy OSC-7.1 **P3.** In the event that unknown archaeological or paleontological resources are discovered during construction, the Planning Division shall be notified immediately. All construction shall stop and an archaeologist meeting the Secretary of the Interior's Professional Qualifications Standards in prehistoric or historical archaeology should be retained to evaluate the discovered resources and recommend appropriate action.

Policy OSC-7.1 **P4.** If Native American artifacts are discovered on a site, the City shall consult representatives of the Native American community to ensure the respectful treatment of Native American sacred places.

All projects within the City of Chino are required to follow these policies which include the cessation of ground disturbing activities in the event of an unanticipated discovery and their subsequent evaluation by a qualified cultural resources specialist. Further, if Native American artifacts are encountered, then the City shall consult with the local Native American community to ensure respectful treatment of their sacred places. Adherence to General Plan policies reduce impacts to archaeological and Native American cultural resources to a less-than-significant level by requiring the evaluation of any archaeological resources encountered, which would ensure that important scientific information that could be provided by these resources regarding history or prehistory is not lost. Consequently, potential impacts to archaeological and Native American cultural resources as a result of implementation of the Regional Reduction Plan would be ***less than significant***.

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

Vertebrate fossils are known to occur within the City of Chino, and the soils present have a varying potential to yield such resources. The potential for impacts on paleontological resources as a result of the Regional Reduction Plan is considered low, as project implementation would not result in extensive ground disturbance in previously undisturbed soils. General Plan Policy OSC-7.1 P3 addresses potential impacts on paleontological resources for all projects within the City of Chino. This policy includes the

cessation of ground disturbing activities in the event of an unanticipated discovery of paleontological resources, and their subsequent evaluation. Adherence to this General Plan policy reduces impacts to paleontological resources to a less-than-significant level by protecting paleontological resources through evaluation and the development of an appropriate action. Therefore, the impact would be ***less than significant***.

Threshold	Would the project disturb any human remains, including those interred outside of formal cemeteries?

The Regional Reduction Plan does not include activities that would directly result in ground disturbing activities, which renders it unlikely that human burials would be disturbed as a result of project implementation. In addition, and in the event human remains are encountered, the discovery is required to comply with State of California Public Resources Health and Safety Code Sections 7050.5–7055. Specifically, Health and Safety Code Section 7050.5 describes the requirements if any human remains are discovered during excavation of a site. As required by state law, the requirements and procedures set forth in California PRC Section 5097.98 would be implemented, including notification of the County Coroner, notification of the Native American Heritage Commission, and consultation with the individual identified by the Native American Heritage Commission to be the Most Likely Descendant. If human remains are found during excavation, excavation must stop in the vicinity of the find and any area that is reasonably suspected to overlie adjacent remains until the County Coroner has been contacted, the remains investigated, and appropriate recommendations made for the treatment and disposition of the remains. Given required compliance with state regulations that detail the appropriate actions necessary in the event human remains are encountered, potential impacts associated with the implementation of the Regional Reduction Plan would be reduced to ***less than significant***.

Project Impacts and Mitigation Measures

Threshold	Would the project cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5?

Impact 4.3.5-1 **The proposed project could cause a substantial adverse change in the significance of a historical resource. Implementation of mitigation measure MM4.3.5-1 would reduce this impact to *less than significant*.**

Implementation of the Regional Reduction Plan will include energy-efficiency retrofit activities and the installation of solar on existing housing and existing commercial/industrial properties. These activities could be proposed at the site of an historical resource or at the site of a resource considered to be a potential historical resource. Future energy-efficiency retrofit activities and the installation of solar have the potential to result in significant impacts on historical resources within the City, including resources listed in or eligible for listing in the NRHP and/or CRHR. Significant impacts could include the delisting or loss of eligibility of such resources. In addition, the completion of energy-efficiency retrofit activities and the installation of solar have the potential to result in significant impacts on buildings or structures of historic age (50 years old or older), or buildings or structures which may eventually be of historic age, and which may qualify as historical resources pursuant to CEQA upon evaluation.

CEQA Guidelines Section 15064.5(b) states that "a project with an effect 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 Regional Reduction Plan may allow for energy-efficiency retrofit activities and solar installation on existing housing and existing commercial/industrial buildings, and these activities have the potential to cause a substantial adverse change in the significance of an historical resource through alteration of a historical resource's physical characteristics that conveys its historical significance. This is considered a potentially significant impact. Goals and policies in the Chino General Plan address the preservation of cultural and historical landmarks, as well as historic structures (as defined by Title 8 [Health and Safety], Section 60.050).

Policy OSC-7.1 **P1.** The City shall ensure that identified cultural and historic landmarks and buildings are preserved, unless the City finds that such preservation is economically infeasible.

Policy OSC-7.1 **P2.** The City shall require the architectural details and design elements of historic structures to be preserved during renovations and remodels.

With the application of the General Plan policies for identified historical resources, as well as mitigation measure MM4.3.5-1 to address unidentified, potential historical resources (buildings or structures 50 years and older), impacts would be reduced to ***less than significant***.

MM4.3.5-1 *Prior to activities that would physically affect any buildings or structures 50 years old or older or affect their historic setting, a cultural resource professional who meets the Secretary of the Interior's Professional Qualifications Standards for Architectural History shall be retained to determine if the project would cause a substantial adverse change in the significance of a historical resource as defined in CEQA Guidelines Section 15064.5. The investigation shall include, as determined appropriate by the cultural resource professional and the City of Chino, the appropriate archival research, including, if necessary, a records search of the Archaeological Information Center (AIC) of the California Historical Resources Information System (CHRIS) and a pedestrian survey of the proposed improvements area to determine if any significant historic-period resources would be adversely affected by the proposed Regional Reduction Plan activities. The results of the investigation shall be documented in a technical report or memorandum that identifies and evaluates any historical resources within the improvements area and includes recommendations and methods for eliminating or reducing impacts on historical resources. Methods could include, but are not limited to, written and photographic recordation of the resource in accordance with the level of Historic American Building Survey (HABS) documentation that is appropriate to the significance (local, state, national) of the resource.*

Cumulative Impacts

The cumulative analysis for impacts on cultural resources considers a broad regional system of which the resources are a part. The cumulative context for the cultural resources analysis is the Santa Ana River Valley and Prado Basin within San Bernardino and Riverside Counties. In these areas, common patterns of prehistoric and historic development have occurred. The analysis accounts for anticipated cumulative growth within the region.

Past development has disturbed human remains, including those interred outside of formal cemeteries. This has led to the implementation of specific requirements to preserve such remains, as codified in

CEQA Guidelines Section 15064.5(e) and PRC Section 5097.98. There is always the possibility that ground-disturbing activities during future construction may uncover previously unknown and buried human remains. Treatment of human remains is covered under these standard regulatory requirements. Therefore, there is no significant cumulative impact with respect to disturbance of human remains. The proposed Regional Reduction Plan would be subject to the same regulations, and the Regional Reduction Plan's cumulative impact on human remains is ***less than significant***.

Based upon existing studies outlining intense resource use in this region, and the documented, observable material culture (i.e., artifacts) recovered from the prehistoric era to the present, the Santa Ana River Valley and Prado Basin are known to have high archaeological sensitivity, and past development has resulted in substantial adverse changes in the significance of various archaeological resources prior to the implementation of regulations enacted for the purpose of avoiding disturbance, damage, or degradation of these resources. Future development may uncover or disturb known or previously unknown archaeological resources. Impacts to such resources would be determined on a discretionary case-by-case basis, and follow CEQA, existing City of Chino Ordinances, and General Plan Policies OSC-7.1 P3 and P4. Potential impacts would be mitigated to levels that would not be significant through applicable regulations and existing policy. Therefore, the proposed Regional Reduction Plan's cumulative impact on archaeological resources is ***less than significant***.

Past development has resulted in destruction of unique paleontological resources and unique geologic features. Based upon the geologic history of the Santa Ana River Valley and Prado Basin, and the high paleontological sensitivity of the rock units within this region, there is always the possibility that ground-disturbing activities during future construction may uncover previously unknown paleontological resources or sites or unique geologic features. Impacts to such resources would be determined on a discretionary case-by-case basis, and follow CEQA, existing City of Chino Ordinances, and General Plan Policy OSC-7.1 P3. Potential impacts would be mitigated to levels that would not be significant through applicable regulations and existing policy. Therefore, the proposed Regional Reduction Plan's cumulative impact on paleontological resources is ***less than significant***.

Urban development that has occurred over the past several decades in the Santa Ana River Valley and Prado Basin has resulted in the demolition and alteration of innumerable historical resources, and it is reasonable to assume that present and future development activities will continue to result in impacts on historical resources. Because all historical resources are unique and nonrenewable members of finite classes, all adverse effects or negative impacts erode a dwindling resource base. Federal, state, and local laws protect historical resources in most instances. Even so, it is not always feasible to protect historical resources, particularly when preservation in place would prevent implementation of projects. However, compliance with existing City policies as outlined in the General Plan, and the implementation of mitigation measure MM4.3.5-1, requires qualified professionals to conduct site-specific cultural resource investigations for future activities associated with the Regional Reduction Plan. Compliance with existing policies and MM4.3.5-1 will ensure that impacts on historical resources are appropriately assessed and that mitigation is performed, as necessary. In this manner, the project's incremental contribution to cumulative effects on historical resources would not be cumulatively considerable, and cumulative impacts are considered ***less than significant***.

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4.3.6 Geology/Soils

This section of the EIR analyzes the potential environmental effects on geology/soils in the City of Chino from implementation of the Regional Reduction Plan. Data for this section were taken from the Chino General Plan (July 2010a) and associated environmental impact report (January 2010b). Full reference-list entries for all cited materials are provided at the end of this section.

No comment letters addressing geology/soils were received in response to the notice of preparation (NOP) circulated for the Regional Reduction Plan.

Environmental Setting

Seismicity

Due to Chino's loosely compacted, silty, sandy alluvial soil and shallow groundwater, ground shaking and liquefaction present the most significant hazards during a moderate-to-significant earthquake. According to the USGS, there is one active fault in the Chino area: the Chino-Central Avenue Fault. The fault has two segments that run roughly southeast/northwest and are found on the western edge of the City and just to the west in the City of Chino Hills, as shown in Figure 4.3.6-1 (Active Faults). This fault is a sub-surface fault that is not expected to rupture, and therefore is not mapped according to the Alquist-Priolo Act.

Ground Rupture

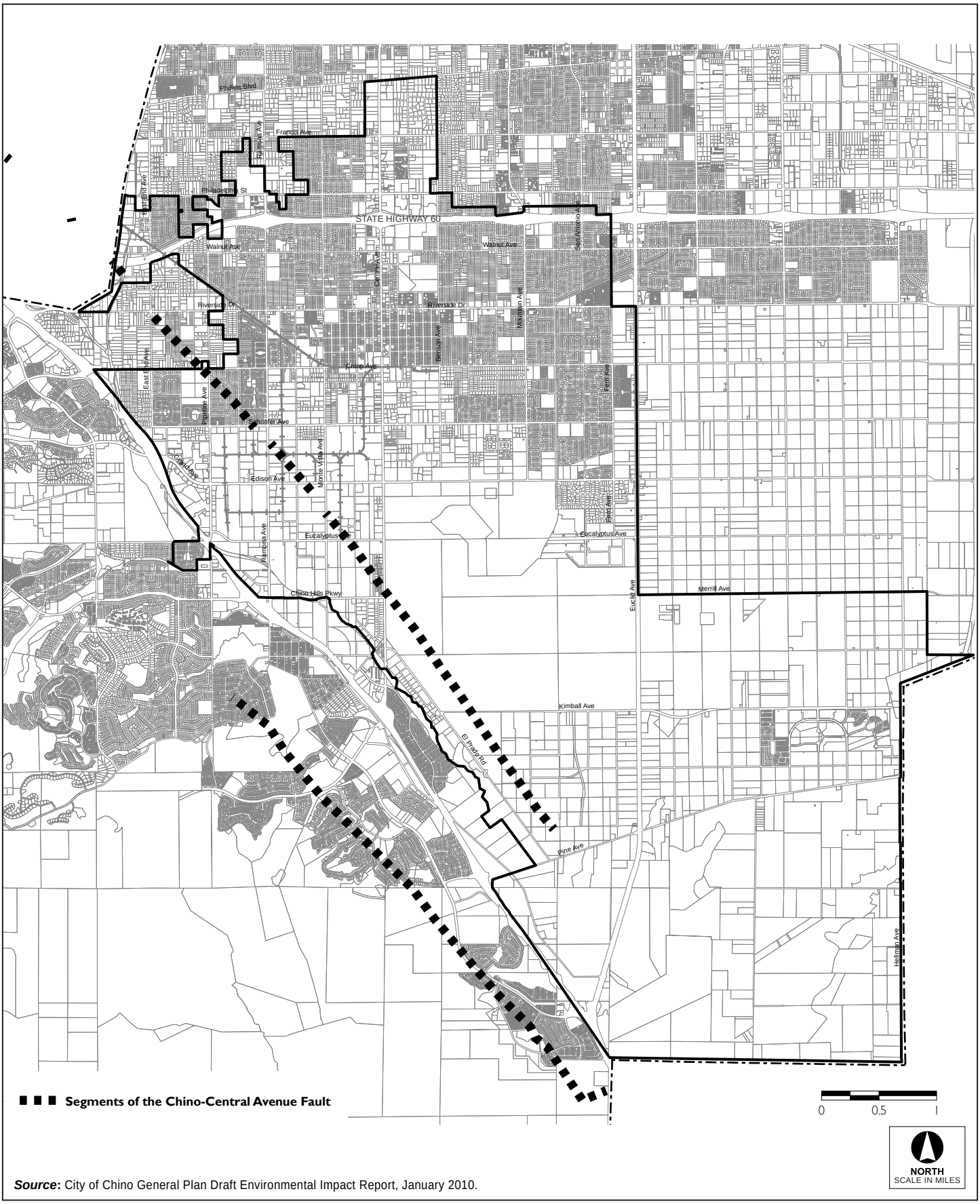
The California Geological Survey (CGS) has developed a list of cities affected by surface fault ruptures, referred to as the Alquist-Priolo Earthquake Fault Zones. Chino is not on the list because the CGS has determined that the fault in Chino does not present a risk of ground rupture in the event of an earthquake.

Ground Shaking

Chino is within a seismically active region and earthquakes have the potential to cause ground shaking of significant magnitude. The major regional faults with potential to affect Chino include the Sierra Madre, San Jacinto, and the San Andreas faults. The City of Chino is approximately 12 miles from the Sierra Madre Fault, 20 miles from the San Jacinto Fault, and 43 miles from the San Andreas Fault.

Ground shaking is the most significant source of widespread earthquake damage. The intensity of ground shaking can be several times greater on sites underlain by thick deposits of saturated sediments than on bedrock. The amount of ground shaking at a particular site depends on:

- Characteristics of the earthquake source (magnitude, location and area of causative fault surface)
- Distance from the fault
- Amplification effects of local geologic deposit



Source: City of Chino General Plan Draft Environmental Impact Report, January 2010.

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Figure 4.3.6-1
Active Faults

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Unreinforced masonry buildings, which are built of brick, stone or concrete without structural steel reinforcements, represent a particular earthquake hazard since they can easily collapse during an earthquake. The majority of Chino's buildings are single-story wood frame homes, which are relatively earthquake resistant. The City of Chino has few remaining unreinforced masonry buildings.

Soil Liquefaction

There are soils susceptible to liquefaction in Chino. The danger of liquefaction is greatest in the southern portion of The Preserve, near the Prado Dam, corresponding to the reduced depth in groundwater in this area. More sites specific assessment of liquefaction potential requires data from geotechnical borings and groundwater level monitoring.

Liquefaction occurs when the strength of saturated, loose, granular materials, such as silt, sand, or gravel, is dramatically reduced as a result of an earthquake. This earthquake-induced deformation transforms a stable material into a temporary fluid-like state in which solid particles are virtually in suspension, akin to quicksand.

Liquefaction is restricted to certain geologic and hydrologic environments, primarily areas with recently deposited sands and silts and high groundwater levels. Generally, the younger and looser the sediment, and the higher the water table, the more susceptible the soil is to liquefaction. Sediments most susceptible to liquefaction include Holocene (less than 10,000-year-old) delta, river channel, flood plain, Aeolian deposits, and poorly compacted fills. Dense soils, including well-compacted fills, have low susceptibility to liquefaction.

Soil Characteristics

The potential for risks associated with landslides, soil erosion, soil expansion and settlement, and subsidence are determined largely by soil characteristics. The City of Chino lies in a region which is made up of alluvial valley floors, fans and terraces. The basic soil types are young alluvial deposits with good drainage and good agricultural characteristics. While the risks of soil erosion and landslides are relatively minute due to the City's flat topography, there is potential for soil expansion and settlement in Chino.

The USDA Soil Conservation Service has prepared the *Soil Survey of San Bernardino County, Southwestern Part*, a regionwide survey of soils. It identifies three Soil Associations for Chino: Hanford-Greenfield-San Emigidio Association, Grangeville-Chino-Hillmar Association and the Tujunga-Soboba Association. There are 29 individual soil types within these three soil associations. These individual soil types are shown in Figure 4.3.6-2 (Soil Types) and listed in Table 4.3.6-1 (Local Soil Types).

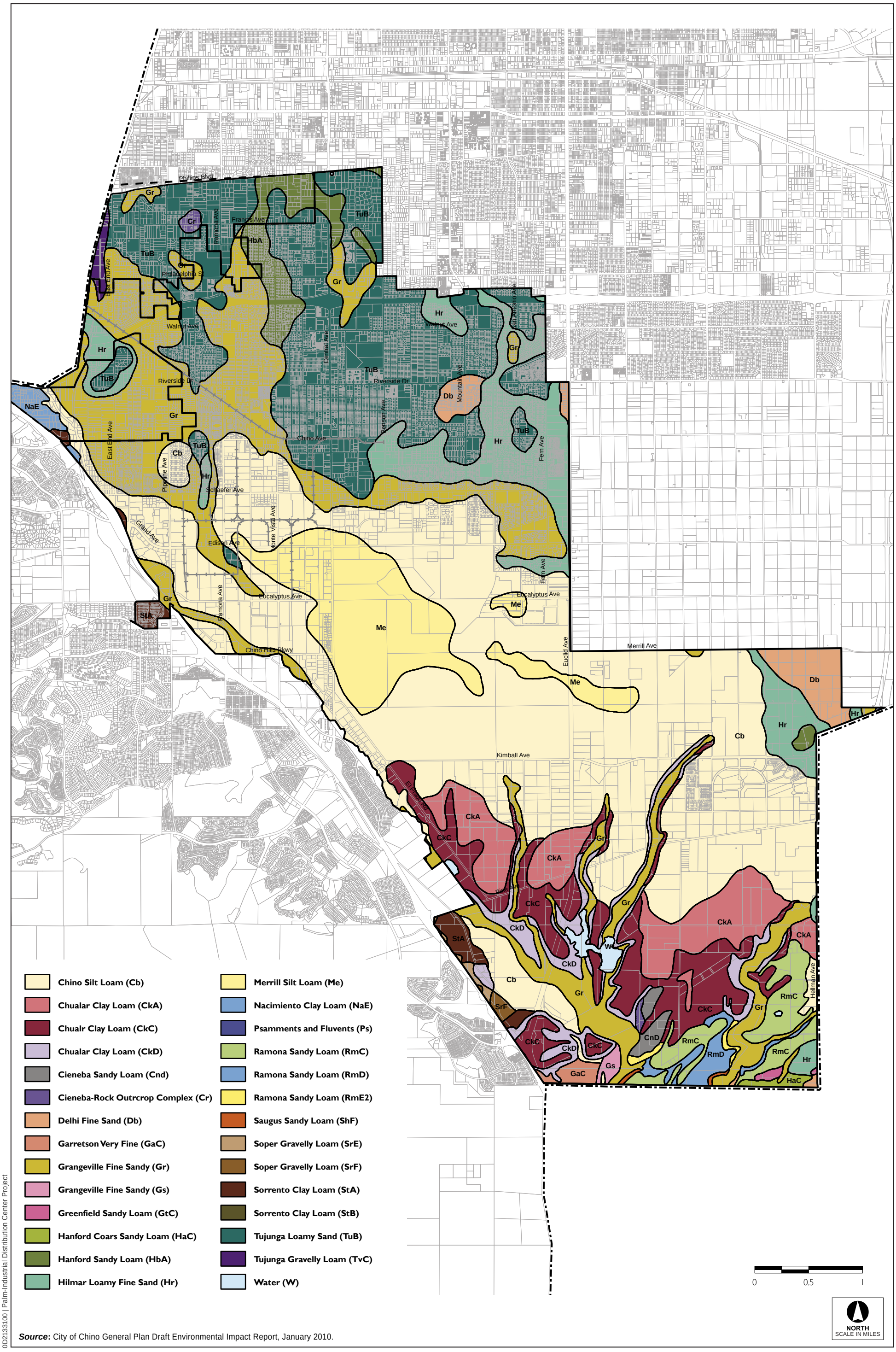
Landslide Hazards

Some of the natural causes of landslides are earthquakes, streams, and heavy rainfall. In addition, certain human activities tend to make earth materials less stable and increase the chance of ground failure. Activities contributing to instability include extensive irrigation, poor drainage or groundwater withdrawal, removal of stabilizing vegetation, and over-steepening of slopes by undercutting them or overloading them with artificial fill. These causes of ground failure, which normally produce landslides and differential settlement, are augmented during earthquakes by strong ground motion. Overall, the risk of landslides in Chino is relatively low, since the City is generally level with very few areas of steep slopes.

Table 4.3.6-1 Local Soil Types

Abbreviation	*Soil Name*	*Shrink-Swell Potential*
Cb	Chino Silt Loam	Low
CkA	Chualar Clay Loam, 0–2% Slopes	Moderate
CkC	Chualar Clay Loam, 2–9% Slopes	Moderate
CkD	Chualar Clay Loam, 9–15% Slopes	Unknown
CnD	Cieneba Sandy Loam, 9–15% Slopes	Unknown
Cr	Cieneba–Rock Outcrop Complex	Unknown
Db	Delhi Fine Sand	Low
GaC	Garretson Very Fine Sandy Loam, 2–9% Slopes	Low
Gr	Grangeville Fine Sandy Loam	Low
Gs	Grangeville Fine Sandy Loam, Saline—Alkali	Low
GtC	Greenfield Sandy Loam, 2–9% Slopes	Low
HaC	Hanford Coarse Sandy Loam, 2–9% Slopes	Low
HbA	Hanford Sandy Loam, 0–2% Slopes	Low
Hr	Hilmar Loamy Fine Sand	Low
Me	Merrill Silt Loam	Low
NaE	Nacimiento Clay Loam, 9–30% Slopes	Moderate
Ps	Psamments and Fluvents, Frequently Flooded	Low
RmC	Ramona Sandy Loam, 2–9% Slopes	Low
RmD	Ramona Sandy Loam, 9–15% Slopes	Low
RmE2	Ramona Sandy Loam, 15–30% Slopes, Eroded	Low
ShF	Saugus Sandy Loam, 30–50% Slopes	Low
SrE	Soper Gravelly Loam, 15–30% Slopes	Low
SrF	Soper Gravelly Loam, 30–50% Slopes	Low
StA	Sorrento Clay Loam, 0–2% Slopes	Moderate
StB	Sorrento Clay Loam, 2–5% Slopes	Moderate
TuB	Tujunga Loamy Sand, 0–5% Slopes	Low
TvC	Tujunga Gravelly Loamy Sand, 0–9% Slopes	Low

SOURCE: City of Chino, Chino General Plan EIR (2010), Table 4.6-1.



Source: City of Chino General Plan Draft Environmental Impact Report, January 2010.

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Figure 4.3.6-2
Soil Types

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Soil Erosion

The USDA rates all soils for susceptibility to sheet and rill erosion from water as well as wind erosion. Soils are ranked on three different scales for their susceptibility to erosion. According to these indicators, the soils in Chino are moderately susceptible to wind or water erosion, but are also able to endure erosion without affecting crop production.

Expansive Soil

Certain types of soil are inherently expansive, meaning they can expand and contract as the water content fluctuates within the soil. This expansion and contraction, also called "shrink-swell," can damage structures that are not appropriately engineered for this activity.

The USDA analyzes the shrink-swell potential of each soil type, and categorizes it as "Low," "Moderate," "High," or "Very High." Where the shrinkswell classification is moderate to very high, shrinking and swelling can damage buildings, roads and other structures. Most of Chino's soils have low shrink-swell potential, but areas of moderate shrink-swell potential are present in the southern portion of the City. The shrink-swell potential for Chino's soil types is shown in Table 4.3.6-1, and areas in Chino with "Moderate" shrink-swell potential are mapped in Figure 4.3.6-3 (Expansive Soils).

Land Surface Subsidence and Groundwater Production

One of the earliest indications that land subsidence was occurring in the Chino Basin was the appearance of ground fissures in the City of Chino. These fissures appeared as early as 1973, but an accelerated occurrence of ground fissuring ensued after 1991 and resulted in damage to existing infrastructure. The scientific studies that followed attributed the fissuring phenomenon to differential land subsidence caused by pumping of the underlying aquifer system and the consequent drainage and compaction of sediments. In 1999, the Phase I Report of the Chino Basin Watermaster Optimum Basin Management Program (OBMP) identified pumping – induced drawdown and subsequent aquifer-system compaction as the most likely cause of the land subsidence and ground fissuring observed in Management Zone 1 (MZ1) of the Chino Groundwater Basin. OBMP Program Element 4 (Develop and Implement a Comprehensive Groundwater Management Plan for Management Zone 1) called for the development and implementation of an interim management plan for MZ1 that would:

- Minimize subsidence and fissuring in the short-term
- Collect information necessary to understand the extent, rate, and mechanisms of subsidence and fissuring
- Formulate a management plan to reduce to tolerable levels or abate future subsidence and fissuring

In 2000, the Implementation Plan in the Chino Basin Peace Agreement called for an aquifer-system and land subsidence investigation in the southwestern region of MZ1 to support the development of a management plan for MZ1. The main conclusions derived from the investigations including the following:

- Groundwater production from the deep, confined aquifer system in this area causes the greatest stress to the aquifer system. In other words, pumping of the deep aquifer system causes water

level drawdowns that are much greater in magnitude and lateral extent than drawdowns caused by pumping of the shallow aquifer system.

- Water level drawdowns due to pumping of the deep aquifer system can cause inelastic (permanent) compaction of the aquifer-system sediments, which results in permanent land subsidence.
- Collected data indicates that permanent subsidence in the central region of MZ1 (north of Ayala Park) and elsewhere in the Chino Basin has occurred in the recent past.

For these reasons, the Watermaster continues to conduct aquifer-system and subsidence monitoring. Based on its analyses, the Watermaster developed a Management Plan to guide the activities of Basin water producers in MZ1. The Plan is adaptive in nature and subject to refinement in accordance with the ongoing studies of the Watermaster.

Regulatory Framework

Federal

There are no federal regulations related to geologic and soil resources and hazards.

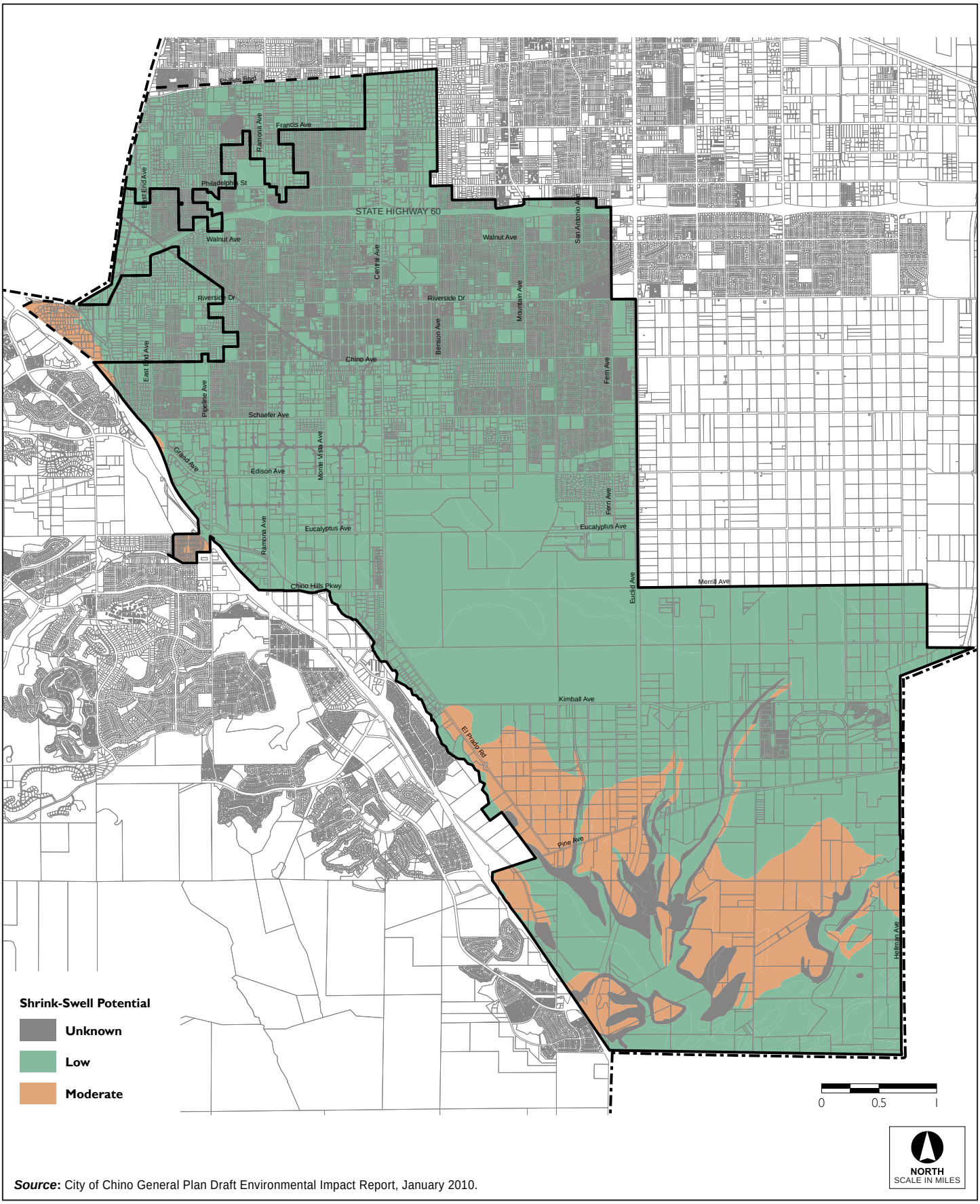
State

California Alquist-Priolo Earthquake Fault Zoning Act

The Alquist-Priolo Earthquake Fault Zoning Act was signed into state law in 1972. Its primary purpose is to mitigate the hazard of fault rupture by prohibiting the location of structures for human occupancy across the trace of an active fault. The act requires the State Geologist to delineate "Earthquake Fault Zones" along faults that are "sufficiently active" and "well defined." The act also requires that cities and counties withhold development permits for sites within an Earthquake Fault Zone until geologic investigations demonstrate that the sites are not threatened by surface displacement from future faulting. Pursuant to this act, structures for human occupancy are not allowed within 50 feet of the trace of an active fault.

Seismic Hazard Mapping Act

The Seismic Hazard Mapping Act was adopted by the state in 1990 for the purpose of protecting the public from the effects of nonsurface fault rupture earthquake hazards, including strong ground shaking, liquefaction, seismically induced landslides, or other ground failure caused by earthquakes. The goal of the act is to minimize loss of life and property by identifying and mitigating seismic hazards. The California Geological Survey prepares and provides local governments with seismic hazard zone maps that identify areas susceptible to amplified shaking, liquefaction, earthquake-induced landslides, and other ground failures.



Source: City of Chino General Plan Draft Environmental Impact Report, January 2010.

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Figure 4.3.6-3
Expansive Soils

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Senate Bill 547

After the 1933 Long Beach earthquake, building codes changed prohibiting unreinforced masonry buildings, and few have been built in California since then; however, there are unreinforced concrete buildings that remain and pose a danger of collapse during seismic events. Senate Bill 547 (Government Code Sections 8875 et seq.), requires local governments to conduct an inventory of unreinforced concrete buildings within their jurisdiction and assess the hazard posed by this class of building. The Senate bill does not specify the level of performance required or expected, but leaves it up to each community.

California 2007 Building Code

Current law states that every local agency enforcing building regulations, such as cities and counties, must adopt the provisions of the California Building Code (CBC) within 180 days of its publication. The publication date of the CBC is established by the California Building Standards Commission and the code is also known as California Code of Regulations (CCR) Title 24, Part 2. The most recent building standard adopted by the legislature and used throughout the state is the 2007 version of the CBC, often with local, more restrictive amendments that are based on local geographic, topographic, or climatic conditions. These codes provide minimum standards to protect property and public safety by regulating the design and construction of excavations, foundations, building frames, retaining walls, and other building elements to mitigate the effects of seismic shaking and adverse soil conditions. The CBC contains provisions for earthquake safety based on factors including occupancy type, the types of soil and rock on-site, and the strength of ground.

Natural Hazards Disclosure Act

The Natural Hazards Disclosure Act requires that sellers of real property and their agents provide prospective buyers with a "Natural Hazard Disclosure Statement" when the property being sold lies within one or more state-mapped hazard areas, including a Seismic Hazard Zone. California law also requires that when houses built before 1960 are sold, the seller must give the buyer a completed earthquake hazards disclosure report and a booklet titled "The Homeowners Guide to Earthquake Safety." This publication was written and adopted by the California Seismic Safety Commission.

Regional

No regional regulations exist pertaining to geologic and soil resources and hazards. Each local jurisdiction has their own criteria for regulating geologic and soil resources and hazards.

Local

City of Chino Municipal Code

The CBC has been amended and adopted as Chino Municipal Code Title 15, which is the Building and Construction Code for the City of Chino and regulates all building and construction projects within the City.

Chino General Plan

The Chino General Plan policies that are applicable to geologic and soil resources and hazards[5] are as follows:

Policy SAF-1.1 **P1.** The City shall enforce the building codes adopted by the State of California in all new construction and renovations.

P2. The City shall rely on the most current and comprehensive geological hazard mapping available to assist in the evaluation of potential seismic hazards to proposed new development.

P3. Site-specific soils and/or geologic reports shall be required for development in areas where potentially serious geologic risks exist. These reports shall address the degree of hazard, design parameters for the project based on the hazard, and the appropriate mitigation measures.

P4. The City shall work with utility providers to ensure that utility lines are designed to withstand seismic forces, are accessible for rapid repair, and are provided with safety features such as automatic shutoff valves, switches and expansion joints.

P5. The City shall consider utilizing redevelopment funds to help reconstruct or replace inadequate structures within redevelopment areas.

Project Impact Evaluation

Thresholds of Significance

The following thresholds of significance are based on the 2012 CEQA Guidelines Appendix G. For purposes of this EIR, implementation of the San Bernardino County Regional GHG Reduction Plan might have a significant adverse impact on geology/soils if it would do any of the following:

- Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:
  - 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? Refer to Division of Mines and Geology Special Publication 42.
  - Strong seismic groundshaking
  - Seismic-related ground failure, including liquefaction
  - Landslides
- Result in substantial soil erosion or the loss of topsoil

[5] These policies are not a complete listing of all policies contained in the General Plan; those policies that would be most applicable to the proposed project are included here.

- 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
- Be located on expansive soil, as defined in 2010 California Building Code Section 1803.5.2, creating substantial risks to life or property
- Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater

Analytic Method

The following analysis considers the potential impacts to geologic and soil resources resulting from implementation of the Regional Reduction Plan within the City.

Effects Not Found to Be Significant

Threshold	Would the project expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving: ■ 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? Refer to Division of Mines and Geology Special Publication 42. ■ Strong seismic groundshaking ■ Seismic-related ground failure, including liquefaction ■ Landslides

The region and the City of Chino contain a number of known earthquake faults, which are described above and shown in Figure 4.3.6-1. However, implementation of the Regional Reduction Plan does not expose people to seismic induced hazards such as fault ruptures, ground shaking, liquefaction, seismically induced settlement, or landslides. Implementation of the reduction measures in the Regional Reduction Plan such as energy efficiency retrofits, energy, renewable energy generation, transit station improvements, are required to comply with seismic safety provisions of the CBC (CCR Title 24, Part 2). Such compliance would reduce hazards arising from fault ruptures, ground shaking, liquefaction, seismically induced settlement, and landslides to less than significant. Consequently, potential impacts as a result of implementation of the Regional Reduction Plan would be ***less than significant***. No mitigation is required.

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

The City of Chino lies in a region that is made up of alluvial valley floors, fans, and terraces. The basic soil types are young alluvial deposits with good drainage. The soils in Chino are moderately susceptible to wind or water erosion. Grading increases the potential for erosion by removing protective vegetation, changing natural drainage patterns, and constructing slopes. However, compliance with the CBC and review of grading plans for individual projects by the City Engineer would ensure no significant impacts would occur. In addition, construction activities on project sites used to implement the reduction

measures in the Regional Reduction Plan such as energy efficiently retrofits, renewable energy generation, bicycle and/or pedestrian infrastructure, transit infrastructure, and methane capture systems larger than 1 acre are required to prepare a Stormwater Pollution Prevention Plan that details best management practices to reduce the potential for erosion during construction activities. Consequently, impacts would be less than significant. The impact would be ***less than significant***. No mitigation is required.

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

Specific improvements needed during implementation of the Regional Reduction Plan are required to comply with seismic safety provisions of the CBC (CCR Title 24, Part 2) and need to obtain a grading permit. Such compliance and City review of the improvements would reduce hazards arising from unstable geologic units and soils including landslides, lateral spreading subsidence, liquefaction, or collapse to less than significant. Consequently, potential impacts as a result of implementation of the Regional Reduction Plan would be ***less than significant***. No mitigation is required.

Threshold	Would the project be located on expansive soil, as defined in 2010 California Building Code Section 1803.5.2, creating substantial risks to life or property?

Most of Chino's soils have low shrink-swell potential, but areas of moderate shrink-swell potential are present in the southern portion of the City. The shrink-swell potential for Chino's soil types is shown in Table 4.3.6-1, and areas in Chino with "Moderate" shrink-swell potential are mapped in Figure 4.3.6-3. Individual projects implementing the reduction measures in the Regional Reduction Plan in the southern part of the City considered for approval by the City could expose persons or structures to potentially significant hazards from expansive soils. However, compliance with the CBC and review of grading plans for individual projects by the City Engineer would ensure no significant impacts would occur. Consequently, any potential impacts associated with expansive soils during implementation of the Regional Reduction Plan would be reduced to ***less than significant***. No mitigation is required.

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

The Regional Reduction Plan reduces GHG emissions citywide and includes reduction measures such as energy efficiency goals, energy efficiency retrofits, renewable energy generation, the reduction of vehicle trips and vehicle miles traveled to reduce transportation related emissions, waste diversion and water conservation programs. None of the reduction measures are related to or require the need for septic tanks or alternative wastewater disposal systems. The impact would be ***less than significant***. No mitigation is required.

Cumulative Impacts

Because the Regional Reduction Plan does not impact geologic and soil resources or hazards at a Project level, implementation of the Regional Reduction Plan will not create impacts to geologic and soil

resources and hazards that are cumulatively considerable. Therefore, ***cumulative impacts would be less than significant***.

References

Chino, City of. 2010a. *City of Chino General Plan*, July.

———. 2010b. *City of Chino General Plan Draft Environmental Impact Report*, January.

———. n.d. *City of Chino Municipal Code*.

San Bernardino Associated Governments (SANBAG). 2012. *San Bernardino County Regional Greenhouse Gas Reduction Plan*. Draft. Prepared by ICF International, December.

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4.3.7 Greenhouse Gas Emissions

This section of the EIR analyzes the potential environmental effects on greenhouse gas emissions in the City of Chino from implementation of the Regional Reduction Plan. Data for this section were taken from various sources, including publications prepared by a number of professional associations and agencies that have suggested approaches and strategies for complying with CEQA's environmental disclosure requirements. Such organizations include the California Attorney General's Office (AGO), the California Air Pollution Controls Officers Association (CAPCOA), the United Nations and World Meteorological Organization's Intergovernmental Panel on Climate Change (IPCC), the Climate Registry, and the Association of Environmental Professionals (AEP). Full reference-list entries for all cited materials are provided at the end of this section.

No comment letters addressing greenhouse gas emissions were received in response to the notice of preparation (NOP) circulated for the Regional Reduction Plan.

Environmental Setting

The proposed project is located within the South Coast Air Basin (Basin). The regional climate within the Basin is considered semi-arid and is characterized by warm summers, mild winters, infrequent seasonal rainfall, moderate daytime onshore breezes, and moderate humidity. Climate change within the Basin is influenced by a wide range of emission sources, such as utility usage, heavy vehicular traffic, industry, and meteorology.

The City of Chino emitted approximately 1.03 MMT CO_2e in 2008. The emissions were calculated based on the 2012RTP traffic modeling, data from utilities, and land use. The largest portion of the City's 2008 emissions were from transportation (39.5 percent), followed by emissions from electricity and natural gas use in buildings (39.1 percent). Table 4.3.7-1 (2008 Net Total Emissions) summarizes the City's net 2008 emissions of CO_2e as broken down by emissions category. This represents the baseline against which GHG emissions as a result of implementation of the Regional Reduction Plan are analyzed. A detailed breakdown of 2008 emissions by category is available in the Regional Reduction Plan.

Table 4.3.7-1 2008 Net Total Emissions

Category	*Metric tons of CO_2e*
Energy	403,585
On-Road Transportation	407,132
Off-Road Equipment	82,908
Water and Wastewater	20,741
Solid Waste	16,239
Agriculture	101,287
Total	***1,031,892***
Excluded Stationary Sources under Title V Permits[a]	207,650

a. Excluded from target setting and reductions due to lack of jurisdictional control (see "Analytical Method" section below)

Climate Change Background

Parts of the Earth's atmosphere act as an insulating blanket of the right thickness to trap sufficient solar energy and keep the global average temperature in a suitable range. The 'blanket' is a collection of atmospheric gases called 'greenhouse gases' based on the idea that these gases trap heat like the glass walls of a greenhouse. These gases, mainly water vapor, carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), ozone (O_3), and chlorofluorocarbons (CFCs), all act as effective global insulators, reflecting visible light and infrared radiation back to earth. Human activities, such as producing electricity and driving internal combustion vehicles, have contributed to the elevated concentration of these gases in the atmosphere. This in turn is causing the Earth's temperature to rise. A warmer Earth may lead to changes in rainfall patterns, smaller polar ice caps, a rise in sea level, and a wide range of impacts on plants, wildlife, and humans.

The relationships of water vapor and ozone as GHGs are poorly understood. It is unclear how much water vapor acts as a GHG. The uncertainty is due to the fact that water vapor can also produce cloud cover, which reflects sunlight away from Earth and can counteract its effect as a GHG. Also, water vapor tends to increase as the Earth warms, so it is not well understood whether the increase in water vapor is contributing to or rather a result of climate change. Ozone tends to break down in the presence of solar radiation but is not understood well enough for evaluation. For these reasons, methodologies approved by the IPCC, United States Environmental Protection Agency (USEPA), and the California Air Resources Board (ARB) focus on carbon dioxide, nitrous oxide, methane, and chlorofluorocarbons. The following provides a brief description of each of these GHGs.

Carbon Dioxide

The natural production and absorption of carbon dioxide occurs through the burning of fossil fuels (e.g., oil, natural gas, and coal), solid waste, trees and wood products, and as a result of other chemical reactions, such as those required to manufacture cement. Globally, the largest source of CO_2 emissions is the combustion of fossil fuels such as coal, oil, and gas in power plants, automobiles, and industrial facilities. A number of specialized industrial production processes and product uses, such as mineral or metal production, and the use of petroleum-based products, leads to CO_2 emissions.

CO_2 is removed from the atmosphere (or sequestered) when it is absorbed by plants as part of the biological carbon cycle. Natural sources of CO_2 occur within the carbon cycle where billions of tons of atmospheric CO_2 are removed by oceans and growing plants and are emitted back into the atmosphere through natural processes. When in balance, total CO_2 emissions and removals from the entire carbon cycle are roughly equal. Since the Industrial Revolution in the 1700s, human activities, including burning of oil, coal, and gas and deforestation, increased CO_2 concentrations in the atmosphere by 35 percent as of 2005.

Methane

Methane is emitted from a variety of both human-related and natural sources. CH_4 is emitted during the production and transport of coal, natural gas, and oil, from livestock and other agricultural practices, and from the decay of organic waste in municipal solid waste landfills. It is estimated that 60 percent of global CH_4 emissions are related to human activities. Natural sources of CH_4 include wetlands, gas

hydrates,[6] permafrost, termites, oceans, freshwater bodies, non-wetland soils, and wildfires. CH_4 emissions levels from a particular source can vary significantly from one country or region to another. These variances depend on many factors, such as climate, industrial and agricultural production characteristics, energy types and usage, and waste management practices. For example, temperature and moisture have a significant effect on the anaerobic digestion process, which is one of the key biological processes resulting in CH_4 emissions from both human and natural sources. Also, the implementation of technologies to capture and utilize CH_4 from sources such as landfills, coal mines, and manure management systems affects the emissions levels from these sources.

Nitrous Oxide

Concentrations of nitrous oxide also began to rise at the beginning of the Industrial Revolution reaching 314 parts per billion (ppb) by 1998. Microbial processes in soil and water, including those reactions that occur in fertilizer containing nitrogen, produce nitrous oxide. In addition to agricultural sources, some industrial processes (fossil fuel-fired power plants, nylon production, nitric acid production, and vehicle emissions) also contribute to the atmospheric load of N_2O.

Chlorofluorocarbons

Chlorofluorocarbons have no natural source, but were synthesized for uses as refrigerants, aerosol propellants, and cleaning solvents. Since their creation in 1928, the concentrations of CFCs in the atmosphere have been rising. Due to the discovery that they are able to destroy stratospheric ozone, a global effort to halt their production was undertaken, and levels of the major CFCs are now remaining static or declining. However, their long atmospheric lifetimes mean that some of the CFCs will remain in the atmosphere for over 100 years. Since they are also a GHG, along with such other long-lived synthesized gases as CF_4 (carbontetrafluoride) and SF_6 (sulfurhexafluoride), they are of concern. Another set of synthesized compounds called HFCs (hydrofluorocarbons) are also considered GHGs, though they are less stable in the atmosphere and therefore have a shorter lifetime and less of an impact. CFCs, CF_4, SF_6, and HFCs have been banned and are no longer available. Therefore, these GHGs are not included further in this analysis.

Potential Effects of Global Climate Change

Climate change could have a number of adverse effects. Although these effects would have global consequences, in most cases they would not disproportionately affect any one site or activity. In other words, many of the effects of climate change are not site-specific. Emission of GHGs would contribute to the changes in the global climate, which would in turn, have a number of physical and environmental effects. A number of general effects are discussed below.

Water Supply. California Health and Safety Code Section 38501(a) recognizes that climate change "poses a serious threat to the economic well-being, public health, natural resources, and the environment of California," and notes, "the potential adverse impacts of [climate change] include…reduction in the

[6] Gas hydrates are crystalline solids that consist of a gas molecule, usually methane, surrounded by a "cage" of water molecules.

quality and supply of water to the state from the Sierra snowpack." As most of the state depends on surface water supplies originating in the Sierra Nevada, this potential water supply reduction is a concern.

Most of the scientific models addressing climate change show that the primary effect on California's climate would be a reduced snow pack and a shift in stream-flow seasonality. A higher percentage of the winter precipitation in the mountains would likely fall as rain rather than as snow in some locations, reducing the overall snowpack. Further, as temperatures rise, snowmelt is expected to occur earlier in the year. As a result, peak runoff would likely come a month or so earlier. The end result of this would be that the state may not have sufficient surface storage to capture the early runoff, and so, absent construction of additional water storage projects, a portion of the current supplies would flow to the oceans and be unavailable for use in the state's water delivery systems.

Water Quality. Climate change could have adverse effects on water quality, which would in turn affect the beneficial uses (habitat, water supply, etc.) of surface water bodies and groundwater. The changes in precipitation discussed above could result in increased sedimentation, higher concentration of pollutants, higher dissolved oxygen levels, increased temperatures, and an increase in the amount of runoff constituents reaching surface water bodies. Sea level rise, discussed above, could result in the encroachment of saline water into freshwater bodies.

Ecosystems and Biodiversity. Climate change could have effects on diverse types of ecosystems, from alpine to deep sea habitat. As temperatures and precipitation change, seasonal shifts in vegetation would occur, which would potentially have an effect on the distribution of associated flora and fauna species. As the range of species shifts, habitat fragmentation could occur, with acute impacts on the distribution of certain sensitive species. The IPCC states that "20 percent to 30 percent of species assessed may be at risk of extinction from climate change impacts within this century if global mean temperatures exceed 2 to 3°C (3.6 to 5.4°F) relative to pre-industrial levels" (IPCC 2007). Shifts in existing biomes[7] could also make ecosystems vulnerable to invasive species encroachment. Wildfires, which are an important control mechanism in many ecosystems, may become more severe and more frequent, making it difficult for native plant species to repeatedly re-germinate. In general terms, climate change would put a number of stressors on ecosystems, with potentially catastrophic effects on biodiversity.

Human Health Impacts. Climate change may increase the risk of vector-borne infectious diseases, particularly those found in tropical areas and spread by insects—malaria, dengue fever, yellow fever, and encephalitis (USEPA 2008). While these health impacts would largely affect tropical areas in other parts of the world, effects would also be felt in California. Warming of the atmosphere would be expected to increase smog and particulate pollution, which could adversely affect individuals with heart and respiratory problems, such as asthma. Extreme heat events would also be expected to occur with more frequency, and could adversely affect the elderly, children, and the homeless. Finally, the water supply impacts and seasonal temperature variations which could occur as a result of climate change could affect the viability of existing agricultural operations, making the food supply more vulnerable.

[7] A biome is a major ecological community classified by the predominant vegetation, and hence animal inhabitants.

Potential Effects of Human Activity on Climate Change

The burning of fossil fuels, such as coal and oil, especially for the generation of electricity and powering of motor vehicles, has led to substantial increases in CO_2 emissions (and thus substantial increases in atmospheric concentrations). In 1994, atmospheric CO_2 concentrations were found to have increased by nearly 30 percent above pre-industrial (c. 1760) concentrations.

The effect each GHG has on climate change is measured as a combination of the volume of its emissions, and its global warming potential (GWP), and is expressed as a function of how much warming would be caused by the same mass of CO_2. Thus, GHG emissions are typically measured in terms of pounds or tons of CO_2 equivalents (CO_2e), and are often expressed in metric tons (MT CO_2e) or millions of metric tons of CO_2 equivalents (MMT CO_2e).

- **Global Emissions**—Worldwide emissions of GHGs in 2004 were nearly 30 billion tons of CO_2e per year (including both ongoing emissions from industrial and agricultural sources, but excluding emissions from land-use changes) (United Nations 2007).
- **U.S. Emissions**—In 2004, the United States emitted 7.1 billion tons of CO_2e. Of the four major sectors nationwide—residential, commercial, industrial, and transportation—transportation accounts for the highest percentage of GHG emissions (approximately 35 to 40 percent); these emissions are entirely generated from direct fossil fuel combustion. In 2008, the United States emitted 6.9 billion tons of CO_2e, with transportation accounting for the highest percentage of GHG emissions, approximately 32 percent (USEPA 2011).
- **State of California Emissions**—In 2004, California emitted approximately 483 MMT CO_2e, or about 6 percent of the U.S. emissions. This large number is due primarily to the sheer size of California compared to other states. By contrast, California has one of the fourth lowest per-capita GHG emission rates in the country, due to the success of its energy-efficiency and renewable energy programs and commitments that have lowered the state's GHG emissions rate of growth by more than half of what it would have been otherwise. Another factor that has reduced California's fuel use and GHG emissions is its mild climate compared to that of many other states. In 2008, California's GHG emissions were approximately 478 MMT CO_2e, generally attributed to the reduced travel, and therefore, transportation emissions (USEPA 2010).
  - The California Energy Commission (CEC) found that transportation is the source of approximately 41 percent of the state's GHG emissions, followed by electricity generation (both in-state and out-of-state) at 23 percent, and industrial sources at 20 percent. Agriculture and forestry is the source of approximately 8.3 percent, as is the source categorized as "other," which includes residential and commercial activities (CEC 2007).

Various aspects of constructing, operating, and eventually discontinuing (demolition and disposal of waste) the use of industrial, commercial, and residential development will result in GHG emissions. Operational GHG emissions result from energy use associated with heating, lighting, and powering buildings (typically through natural gas and electricity consumption), pumping and processing water (which consumes electricity), as well as fuel used for transportation and decomposition of waste associated with building occupants. New development can also create GHG emissions in its construction and demolition phases in connection with the use of fuels in construction equipment, creation and decomposition of building materials, vegetation clearing, and other activities. However, it is noted that

new development does not necessarily create entirely new GHG emissions. Occupants of new buildings are often relocating and shifting their operational-phase emissions from other locations.

Regulatory Framework

Federal

U.S. Environmental Protection Agency

The USEPA is responsible for implementing federal policy to address global climate change. The federal government administers a wide array of public-private partnerships to reduce GHG intensity generated by the United States. These programs focus on energy efficiency, renewable energy, methane and other non-CO_2 gases, agricultural practices, and implementation of technologies to achieve GHG reductions.

Federal Mandatory Greenhouse Gas Reporting Rule

On September 22, 2009, USEPA released its final Greenhouse Gas Reporting Rule (Reporting Rule). The Reporting Rule is a response to the fiscal year (FY) 2008 Consolidated Appropriations Act (H.R. 2764; Public Law 110–161), which required USEPA to develop "mandatory reporting of greenhouse gasses above appropriate thresholds in all sectors of the economy …" The Reporting Rule would apply to most entities that emit 25,000 MT CO_2e or more per year. 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 mandates recordkeeping and administrative requirements in order for USEPA to verify annual GHG emissions reports.

USEPA Endangerment and Cause and Contribute Findings

On December 7, 2009, USEPA signed the Endangerment and Cause or Contribute Findings for GHGs under Clean Air Act (CAA) Section 202(a). Under the Endangerment Finding, USEPA finds that the current and projected concentrations of the six key well-mixed GHGs—carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), perfluorinated carbons (PFCs), sulfur hexafluoride (SF_6), and hydrofluorocarbons (HFCs)—in the atmosphere threaten the public health and welfare of current and future generations. Under the Cause or Contribute Finding, USEPA found that the combined emissions of these well-mixed GHGs from 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 specific industries or other entities. However, this action was a prerequisite to finalizing USEPA's CAA Title V permitting regulations known as the "Tailoring Rule" under the for new, large point source emitters and corporate average fuel economy (CAFE) standards for light-duty vehicles for future years.

Clean Air Act Permitting (Tailoring Rule) for GHG Emissions

On January 2, 2011, USEPA required states to implement new pollution control measures designed to reduce GHG emissions from new large emission sources such as power plants and refineries. The new GHG standards fall under CAA Title V; while the USEPA oversees compliance with the CAA, individual states are in control of issuing CAA Title V air permits. All states have adapted their air permit programs to comply with the GHG standards of the CAA except for Arizona and Texas. For these two states, the USEPA will take over the issuing of air permits until such a time that the state can resume

compliance. The final rule, called the "Tailoring Rule," established a phased schedule that focuses the GHG permitting programs on the largest sources with the most CAA permitting experience in the first step. Then, in step two, the rule expands to cover large sources of GHGs that may not have been previously covered by the CAA for other pollutants. The rule also describes USEPA's commitment to future rulemaking that will describe subsequent steps for GHG permitting. The "Tailoring Rule" requires all new sources or modifications of existing sources subject to the New Source Review Prevention of Significant Deterioration (PSD) for another regulated air pollutant under the CAA to also provide Best Available Contract Technology (BACT) if the source has a potential to emit (PTE) at least 75,000 MT/year carbon dioxide equivalents (CO_2e). In addition new sources that are not regulated under the CAA for other air pollutants, but have a PTE of at least 100,000 MT CO_2e/year must provide BACT for GHG emissions.

Updated Corporate Average Fuel Economy (CAFE) Standards

The current Federal CAFE standards (for model years 2011 to 2016) incorporate stricter fuel economy requirements promulgated by the federal government and the state of California into one uniform standard. Additionally, automakers are required to cut GHG emissions in new vehicles by roughly 25 percent by 2016 (resulting in fleet average of 35.5 miles per gallon [mpg] by 2016). Rulemaking to adopt these new standards was completed in 2010. California agreed to allow automakers who show compliance with the national program to also be deemed in compliance with state requirements. The federal government issued new standards in summer 2012 for model years 2017–2025, which will require a fleet average in 2025 of 54.5 mpg.

State

California Air Resources Board

California ARB, a part of the California EPA, is responsible for the coordination and administration of both federal and state air pollution control programs within California. In this capacity, California ARB conducts research, sets state ambient air quality standards, compiles emission inventories, develops suggested control measures, and provides oversight of local programs. California ARB establishes emissions standards for motor vehicles sold in California, consumer products (such as hairspray, aerosol paints, and barbecue lighter fluid), and various types of commercial equipment. It also sets fuel specifications to further reduce vehicular emissions. California ARB has primary responsibility for the development of California's State Implementation Plan (SIP), for which it works closely with the federal government and the local air districts.

Executive Order S-3-05

California Governor Arnold Schwarzenegger announced on June 1, 2005, through Executive Order S-3-05, 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
- By 2050, California shall reduce GHG emissions to 80 percent below 1990 levels

Assembly Bill (AB) 32, the California Global Warming Solutions Act of 2006

In 2006, the California State Legislature adopted AB 32, the California Global Warming Solutions Act of 2006. AB 32 focuses on reducing GHGs in California. California ARB has determined the statewide levels of GHG emissions in 1990 to be 427 MMT CO_2e. California ARB has adopted the Climate Change Scoping Plan, which outlines the state's strategy to achieve the 2020 GHG limit set by AB 32. This Scoping Plan proposes a comprehensive set of actions designed to reduce overall greenhouse gas emissions in California, improve the environment, reduce dependence on oil, diversify energy sources, save energy, create new jobs, and enhance public health.

Part of California's strategy for achieving GHG reductions under AB 32 are the early action greenhouse gas reduction measures, which include the following: a low carbon fuel standard; reduction of emissions from non-professional servicing of motor vehicle air conditioning systems; and improved landfill methane capture (California ARB 2007).

Assembly Bill (AB) 1493—Pavley Rules

Known as "Pavley I," AB 1493 standards were the nation's first GHG standards for automobiles. AB 1493 requires the California ARB to adopt vehicle standards that will lower GHG emissions from new light-duty autos to the maximum extent feasible beginning in 2009. Additional strengthening of the Pavley standards (referred to previously as "Pavley II", now referred to as the "Advanced Clean Cars" measure) has been proposed for vehicle model years 2017–2025. Together, the two standards are expected to increase average fuel economy to roughly 43 mpg by 2020 (and more for years beyond 2020) and reduce GHG emissions from the transportation sector in California by approximately 14 percent. In June 2009, USEPA granted California's waiver request enabling the state to enforce its GHG emissions standards for new motor vehicles beginning with the current model year. USEPA and the California ARB have worked together on a joint rulemaking to establish GHG emissions standards for model year 2017–2025 passenger vehicles. As noted above, the federal government completed rulemaking in summer 2012 resulting in adoption of new standards that would lead to fleet average of 54.5 mpg in 2025.

Senate Bill (SB) 1078, SB 107, and SB 2—Renewable Portfolio Standard

SB 1078 and SB 107, California's Renewable Portfolio Standard (RPS), obligates investor-owned utilities (IOUs), energy service providers (ESPs), and Community Choice Aggregations (CCAs) to procure an additional 1 percent of retail sales per year from eligible renewable sources until 20 percent is reached, no later than 2010. The California Public Utilities Commission (CPUC) and California Energy Commission (CEC) are jointly responsible for implementing the program. SB 2 (2011) set forth a longer-range target of procuring 33 percent of retail sales by 2020.

Executive Order S-01-07—Low Carbon Fuel Standard

Executive Order S-01-07 mandates (1) that a statewide goal be established to reduce the carbon intensity of California's transportation fuels by at least 10 percent by 2020, and (2) that an LCFS for transportation fuels be established in California. The executive order initiated a research and regulatory process at California ARB. California ARB developed the LCFS regulation pursuant to the authority under AB 32 and adopted it in 2009. In late 2011, a federal judge issued a preliminary injunction blocking enforcement

of the LCFS, ruling that the LCFS violates the interstate commerce clause (Georgetown Climate Center 2012). The injunction was lifted in April 2012 so that California ARB can continue enforcing the LCFS pending California ARB's appeal of the federal district court ruling.

Senate Bill (SB) 375

SB 375, which establishes mechanisms for the development of regional targets for reducing passenger vehicle greenhouse gas emissions, was adopted by the State on September 30, 2008. On September 23, 2010, California ARB adopted the vehicular greenhouse gas emissions reduction targets that had been developed in consultation with the metropolitan planning organizations (MPOs); the targets require a 7 to 8 percent reduction by 2020 and between 13 to 16 percent reduction by 2035 for each MPO. SB 375 recognizes the importance of achieving significant greenhouse gas reductions by working with cities and counties to change land use patterns and improve transportation alternatives. Through the SB 375 process, MPOs, such as the Southern California Council of Governments (SCAG), which includes Orange County, will work with local jurisdictions in the development of sustainable communities strategies (SCS) designed to integrate development patterns and the transportation network in a way that reduces greenhouse gas emissions while meeting housing needs and other regional planning objectives. SCAG's reduction target for per capita vehicular emissions is 8 percent by 2020 and 13 percent by 2035 (California ARB 2010). The MPOs will prepare their first SCS according to their respective regional transportation plan (RTP) update schedule; to date, no region has adopted an SCS. The first of the RTP updates with SCS strategies are expected in 2012.

Senate Bill (SB) 97

SB 97, enacted in 2007, amends the CEQA statute to clearly establish that GHG emissions and the effects of GHG emissions are appropriate subjects for CEQA analysis. In March 2010, the California Office of Administrative Law codified into law CEQA amendments that provide regulatory guidance with respect to the analysis and mitigation of the potential effects of GHG emissions, as found in CEQA Guidelines Section 15183.5. To streamline analysis, CEQA provides for analysis through compliance with a previously adopted plan or mitigation program under special circumstances.

Executive Order S-13-08

Executive Order S-13-08, the Climate Adaptation and Sea Level Rise Planning Directive, provides clear direction for how the state should plan for future climate impacts. The first result is the 2009 California Adaptation Strategy (CAS) report which summarizes the best known science on climate change impacts in the state to assess vulnerability and outlines possible solutions that can be implemented within and across state agencies to promote resiliency.

California Code of Regulations (CCR) Title 24

CCR Title 24, Part 6 (California's Energy Efficiency Standards for Residential and Nonresidential Buildings), was first established in 1978 in response to a legislative mandate to reduce California's energy consumption. The standards are updated periodically to increase the baseline energy efficiency requirements. Although it was not originally intended to reduce GHG emissions, electricity production by fossil fuels results in GHG emissions and energy efficient buildings require less electricity. Therefore,

increased energy efficiency results in decreased GHG emissions. The 2008 standards are the most recent version which went into effect in January 1, 2010.

CCR Title 24, Part 11 (California's Green Building Standard Code) (CALGreen), was adopted in 2010 and went into effect January 1, 2011. CALGreen is the first statewide mandatory green building code and significantly raises the minimum environmental standards for construction of new buildings in California. The mandatory provisions in CALGreen will reduce the use of VOC-emitting materials, strengthen water conservation, and require construction waste recycling.

Greenhouse Gas Cap-and-Trade Program

On October 20, 2011, California ARB adopted the final cap-and-trade program for California. The California cap-and-trade program will create a market-based system with an overall emissions limit for affected sectors. The program is currently proposed to regulate more than 85 percent of California's emissions and will stagger compliance requirements according to the following schedule: (1) electricity generation and large industrial sources (2012) and (2) fuel combustion and transportation (2015). The first auction will be in late 2012 with the first compliance year in 2013.

Regional

Southern California Association of Governments (SCAG)

SCAG is the designated Metropolitan Planning Organization for six Southern California counties (Los Angeles, Ventura, Orange, San Bernardino, Riverside, and Imperial), and is federally mandated to develop plans for transportation, growth management, hazardous waste management, and air quality. The Southern California Association of Governments (SCAG) regional plans cover San Bernardino County, which includes the City and SOI, and five other counties within Southern California.

Regional Comprehensive Plan

The Regional Comprehensive Plan (RCP) is a problem-solving guidance document that responds to SCAG's Regional Council directive in the 2002 Strategic Plan to develop a holistic, strategic plan for defining and solving the region's interrelated housing, traffic, water, air quality, and other regional challenges. The RCP is a voluntary framework that links broad principles to an action plan that moves the region towards balanced goals. The RCP's guiding principles include:

- Improve mobility for all residents. Improve the efficiency of the transportation system by strategically adding new travel choices to enhance system connectivity in concert with land use decisions and environmental objectives.
- Foster livability in all communities.
- Foster safe, healthy, walkable communities with diverse services, strong civic participation, affordable housing, and equal distribution of environmental benefits.
- Enable prosperity for all people. Promote economic vitality and new economies by providing housing, education, and job training opportunities for all people.
- Promote sustainability for future generations.

- Promote a region where quality of life and economic prosperity for future generations are supported by the sustainable use of natural resources.

Further, the RCP seeks to successfully integrate land and transportation planning and achieve land use and housing sustainability by implementing Compass Blueprint and 2 percent Strategy:

- Focusing growth in existing and emerging centers and along major transportation corridors
- Creating significant areas of mixed-use development and walkable, "people-scaled" communities
- Providing new housing opportunities, with building types and locations that respond to the region's changing demographics
- Targeting growth in housing, employment and commercial development within walking distance of existing and planned transit stations
- Injecting new life into under-used areas by creating vibrant new business districts, redeveloping old buildings and building new businesses and housing on vacant lots
- Preserving existing, stable, single-family neighborhoods
- Protecting important open space, environmentally sensitive areas and agricultural lands from development
- Reduce emissions of criteria pollutants to attain federal air quality standards by prescribed dates and state ambient air quality standards as soon as practicable
- Reverse current trends in greenhouse gas emissions to support sustainability goals for energy, water supply, agriculture, and other resource areas
- Minimize land uses that increase the risk of adverse air pollution-related health impacts from exposure to toxic air contaminants, particulates (PM_{10}, $PM_{2.5}$, ultrafine), and carbon monoxide

Regional Transportation Plan

On May 8, 2012, the Regional Council of SCAG adopted the 2012 Regional Transportation Plan (RTP) and SCS for the SCAG area aimed at attaining the reduction targets of an 8 percent per capita reduction in GHG emissions from passenger vehicles by the year 2020 and a 13 percent reduction by 2035. There are transportation-related reduction measures included in this Regional Reduction Plan that coordinate with efforts in SCAG's SCS. The 2012 RTP strives to provide a regional investment framework to address the region's transportation and related challenges, and looks to strategies that integrate land use into transportation planning with an emphasis on transit and other non-vehicle transportation modes. The RTP also provides the framework for aggregating sub-regional and local efforts to institute measures aimed at mitigating the adverse air pollution impacts from transportation activities. These measures are known as transportation control measures (TCMs). The RTP links the goal of sustaining mobility with the goals of fostering economic development, enhancing the environment, reducing energy consumption, promoting transit-friendly development patterns, and encouraging fair and equitable access to residents affected by socio-economic, geographic, and commercial limitations. The Regional Transportation Implementation Plan (RTIP) is the vehicle used to implement the RTP and SCS. The RTIP also provides the schedule and framework for the timely implementation of the Region's TCM strategies.

SCAG is currently in the process of developing the 2014 RTP and SCS for their jurisdiction aimed at updating the regional transportation modeling system and keeping on track to achieve the reduction targets of an 8 percent per capita reduction in GHG emissions from passenger vehicles by the year 2020 and a 13 percent reduction by 2035.

SCAG Compass Growth Visioning

The Compass Blueprint Growth Vision effort by SCAG is a response, supported by a regional consensus, to the land use and transportation challenges facing Southern California now and in the coming years. The Growth Vision is driven by four key principles:

- **Mobility**—Getting where we want to go
- **Livability**—Creating positive communities
- **Prosperity**—Long-term health for the region
- **Sustainability**—Preserving natural surroundings

The fundamental goal of the Compass Growth Visioning effort is to make the SCAG region a better place to live, work, and play for all residents regardless of race, ethnicity, or income class. Thus, decisions regarding growth, transportation, land use and economic development should be made to promote and sustain for future generations the region's mobility, livability and prosperity.

South Coast Air Quality Management District

The South Coast Air Quality Management District (SCAQMD) is the agency principally responsible for comprehensive air pollution control in the South Coast Air Basin, which includes the counties of Los Angeles, Riverside, San Bernardino, and Orange. In order to provide GHG emission guidance to the local jurisdictions within the Basin, the SCAQMD has organized a Working Group to develop GHG emissions analysis guidance and thresholds.

SCAQMD released a draft guidance document regarding interim CEQA GHG significance thresholds in October 2008. On December 5, 2008, the SCAQMD Governing Board adopted the staff proposal for an interim GHG significance threshold for projects where the SCAQMD is the lead agency. SCAQMD proposed a tiered approach, whereby the level of detail and refinement needed to determine significance increases with a project's total GHG emissions. The tiered approach defines projects that are exempt under CEQA and projects that are within the jurisdiction of and subject to the policies of a GHG Reduction Plan as less than significant.

Air Quality Management Plan

The SCAQMD and the SCAG are the agencies responsible for preparing the Air Quality Management Plan (AQMP) for the Basin. The most recent comprehensive plan is the 2012 AQMP adopted on December 7, 2012. The 2012 AQMP is designed to meet the state and federal CAA planning requirements and focuses on new federal ozone and $PM_{2.5}$ standards. The 2012 AQMP incorporates significant new emissions inventories, ambient measurements, scientific data, control strategies, and air quality modeling including transportation conformity budgets that show vehicle miles traveled (VMT) emissions offsets following the recent changes in USEPA requirements.

San Bernardino County GHG Reduction Plan

Following San Bernardino County's adoption of its General Plan in March 2007, the California Attorney General filed a lawsuit alleging that the EIR prepared for the General Plan Update did not comply with the requirements of CEQA in its analysis of GHG emissions and climate change. Subsequently, the County and the Attorney General entered into an agreement to settle the lawsuit, which included an agreement by the County to (1) prepare an amendment to its General Plan adding a policy that describes the County's goal of reducing those GHG emissions reasonably attributable to the County's discretionary land use decisions and the County's internal government operations and (2) prepare a GHG Emissions Reduction Plan, which includes inventories, a reduction target, and reduction measures to meet the reduction target, by regulating those sources of GHG emissions reasonably attributable to the County's discretionary land use decisions and the County's internal government operations.

The County's GHG Reduction Plan fulfilled the requirements of the settlement agreement and includes a comprehensive analysis and inventory of GHG emissions within the unincorporated County areas and emissions from County government operations within municipalities, 2020 forecasted emissions, a set of reduction measures used to reduce 2020 emission levels down to the reduction targets for the County, and a monitoring and updating framework designed to keep the County on track toward achieving the reduction targets.

The technical data, emission inventory processes, and methodology used in the San Bernardino County GHG Reduction Plan became the foundational inventory processes and methodology used in this Regional Reduction Plan.

Local

The Chino General Plan contains goals, objectives, and supporting policies and actions that promote preservation and improvement of air quality and a reduction in GHG emissions. Those that are applicable to air quality and GHG emissions[8] are listed below.

Policy OSC-4.2 **P2.** The City shall collaborate with local energy suppliers and distributors to establish energy conservation programs, Energy Star® appliance change out programs, rebates, vouchers, and other incentives to install energy efficient technology and products.

Policy OSC-4.1 **P1.** The City shall continue to comply with California Building Code (Title 24) provisions, including Part 11 of the Code, referred to as CALGreen or the California Green Building Standards Code and consider exceeding the standards where appropriate and as deed necessary to meet the City's goals and/or legal obligations.

Policy OSC-4.1 **P3.** The City shall encourage developers to offer buyers of new homes the option of having solar panels incorporated.

Policy OSC-4.1 **P4.** The City shall encourage solar-oriented design, green roofs, and passive solar heating and cooling in all new residential, commercial and civic development.

[8] These policies are not a complete listing of all policies contained in the General Plan; those policies that would be most applicable to the proposed project are included here.

Policy OSC-4.1 **P12.** The City shall protect solar access by limiting the blockage of buildings from sunlight by other buildings and structures.

Policy OSC-4.1 **P5.** The City shall require that deciduous trees be planted on the south- and west-facing sides of new buildings to reduce energy usage.

Policy OSC-4.3 **P8.** Parking lots shall be landscaped, including shade trees, to create an attractive pedestrian environment and reduce the impact of heat islands.

Policy OSC-6.1 **P2.** The City shall actively inspect non-residential buildings and enforce State requirements for cool roofs on non-residential re-roofing projects

Policy OSC-4.1 **P8.** The City shall require that all new residences sold with appliances install all Energy Star-Rated appliances. All new residences shall use compact florescent lights in all standard light installations. Installation of these measures shall be confirmed.

Policy OSC-4.1 **P7.** All new public buildings constructed by the City shall adhere to green building standards and meet the U.S. Green Building Council's LEED certifications for green buildings, or an equivalent standard.

Objective LU-1.2 Create and maintain neighborhoods that facilitate walking and bicycling in lieu of car travel.

Objective CC-4.2 Connect established and new areas of the City with one another.

Objective TRA-10.2 Increase the connectivity, safety and convenience of the bicycle network.

Objective TRA-11.1 Increase the pedestrian share of travel within Chino.

Policy AQ-1.1 **P1.** The City shall promote land use patterns that reduce the number and length of motor vehicle trips.

Objective LU-5.2 Review fee structures to provide financial and administrative incentives to support desired land uses and development patterns, and alternative modes of transportation.

Goal TRA-4 Maximize the efficiency of the existing transportation network throughout Chino with the use of Intelligent Transportation Systems (ITS) strategies.

Objective LU-5.2 Review fee structures to provide financial and administrative incentives to support desired land uses and development patterns, and alternative modes of transportation.

Policy TRA-14.1 **P1.** The City shall work with transit agencies to prioritize funding for expanded transit service and transit service with lower emissions.

Objective TRA-14.2 Promote the use of low- and zero-emission vehicles, and alternative fuels, and other measures that directly reduce emissions from motor vehicles.

Policy PFS-12.1 **P1.** The City shall require mandatory trash, recycling, and green waste pick-up as a means to ensure a safe, sanitary environment.

Policy PFS-12.1 **P3.** The City shall strive to meet or exceed the State's goal of diverting 50% of all solid waste from landfills.

Policy PFS-12.1 **P4.** The City shall promote the redesign, reuse, composting, and shared producer responsibility of discarded material.

Policy PFS-12.1 **P5.** The City shall encourage local businesses to expand their recycling and composting efforts and to reduce packaging of products manufactured in the City.

Policy OSC-4.2 **P2.** The City shall collaborate with local energy suppliers and distributors to establish energy conservation programs, Energy Star® appliance change-out programs, rebates, vouchers, and other incentives to install energy-efficient technology and products.

Policy PFS-7.1 **P2.** The City shall establish water demand reduction standards for new development and redevelopment to reduce per capita and total demand for water.

Policy PFS-7.1 **P4.** The City shall review proposed new development and significant redevelopment to determine whether all feasible water conservation measures are being implemented.

Policy PFS-7.1 **P5.** The City shall implement cost-effective water conservation programs that improve water-use efficiency, reduce water demand, and preserve the City's supplies.

Policy PFS-7.1 **P3.** The City shall review proposed irrigation systems to ensure they provide required water efficiency.

These policies are also listed in the Chino chapter of the Regional Reduction Plan and list the policies that apply to each reduction measure chosen by the City of Chino in the Regional Reduction Plan.

As part of the preparation for the Regional Reduction Plan, the City of Chino selected a goal to reduce its community GHG emissions to a level that is 15 percent below its 2008 GHG emissions level by 2020. This is the Reduction Target for the City. To fulfill this commitment the City is participating in this Regional Reduction Plan. Additional details of the City's portion of the Regional Reduction Plan are provided in Section 4.3.0 (Introduction to the Analysis) of this EIR and the Chino chapter of the Regional Reduction Plan.

Project Impact Evaluation

Thresholds of Significance

The following thresholds of significance are based on the 2012 CEQA Guidelines Appendix G. For purposes of this EIR, implementation of the San Bernardino County Regional GHG Reduction Plan might have a significant adverse impact on greenhouse gas emissions if it would do any of the following:

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

Analytic Method

The impact analysis for the Regional Reduction Plan is based on a GHG emissions analysis, which is presented in the environmental analysis, below. The Regional Reduction Plan document includes community-wide GHG emissions inventories for the City of Chino for the following scenarios: 2008,

2020 business-as-usual (BAU), and 2020 reduced. The 2008 inventory is the baseline; this was the most recent year for which adequate data was available and uniform to all the Partnership Cities. The baseline emissions inventory was also used to establish the reduction target for the year 2020.

As stated above the GHG Reduction Target for the City is to reduce the GHG emissions predicted for 2020 business as usual by at least 15 percent.

The 2020 BAU scenario represents the forecasted emissions for the City without the incorporation of recently adopted measures to reduce GHG emissions. The 2020 reduced scenario demonstrates the effects of the Regional Reduction Plan reduction measures and their ability to reduce Chino's emissions to levels at or below the reduction target. The methodology and assumptions used in this analysis are detailed in Appendices A and B of the Regional Reduction Plan. Refer to in the Regional Reduction Plan (included in Appendix B of this EIR) for model inputs and sources, model output and detailed calculations. A summary of the Regional Reduction Plan methodology is provided below.

The following summarizes the basis of the GHG calculations by emission source. The emissions and emissions reduction calculations performed for the Regional Reduction Plan followed guidance provided by the CAPCOA, other reference sources (such as the USEPA, CEC, California ARB, and IPCC), and ICF International's professional experience obtained from preparing climate action plans for other jurisdictions in California. Baseline emissions inventories were completed by quantifying GHG sources in the region based on information provided by local utility providers, the Southern California Association of Governments (SCAG), and local land use information. These sources were multiplied by GHG emissions factors from a variety of sources, including EMFAC2011, and guidance from the reference sources listed above. 2020 business as usual emissions were estimated based on anticipated growth in the residential and commercial/industrial areas, and the projected increase in VMT determined by SCAG. Refer to Appendices A and B of the Regional Reduction Plan for a detailed methodology of the GHG emissions and emission reduction calculations. The complete Regional Reduction Plan is included in Appendix B of this EIR.

Because the impact each GHG has on climate change varies, a common metric of CO_2e is used to report a combined impact from all of the GHGs. The effect each GHG has on climate change is measured as a combination of the volume of its emissions, and its global warming potential, and is expressed as a function of how much warming would be caused by the same mass of CO_2. Thus, GHG emissions in this analysis are measured in terms of MT CO_2e.

Note that some stationary sources within the City are permitted under CAA Title V. Permitted industrial process such as oil and gas production (combustion), petroleum production and marketing, chemical production, mineral processes, and other permitted industrial processes are strictly regulated under the CAA by SCAQMD, California ARB, and USEPA. The City cannot change in any way the industrial process and BACT emission reduction devises on these permitted sources. Because the City does not have jurisdictional control over these point source industrial processes, GHG emissions from these permitted stationary sources were not included in determining GHG Reduction Target setting or subject to City-administered reduction measures associated with them in the Regional Reduction Plan. However, SCAQMD permit regulations, and in some cases the USEPA Tailoring Rule and California Cap and Trade Program, will regulate and reduce GHG emissions from these permitted industrial process

sources. GHG emissions from these permitted stationary sources in the City of Chino totaled 207,650 MT CO_2e in 2008.

Effects Not Found to Be Significant

Threshold	Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

Implementation of the Regional Reduction Plan in the City of Chino would result in the reduction of GHG emissions over the long term, which would be a beneficial effect. Area source reduction strategies such as landscape strategies, cool roofs, cool pavement, and parking lot shading would reduce GHG emissions. Construction activities, such as building energy retrofits and grading or excavation activities, if required, for installation of energy-generating structures, would result in temporary, short-term emissions of GHGs. These temporary, short-term emissions would not be substantial, and would be offset by the operation of energy-efficiency retrofits and renewable energy projects that are part of the reduction measures in the Regional Reduction Plan that would result in an overall reduction in GHG emissions.

Table 4.3.7-2 (GHG Emission Inventories and Reductions in the City of Chino) quantitatively shows the reductions of GHG emissions in 2020 that result would result from implementation of the Regional Reduction Plan in the City of Chino and compares the reduced emissions with the City Reduction Target.

The reduction measures that reduce GHG emissions down to levels below the Reduction Target are discussed in Section 4.3.0 of this EIR. Chapter 4 of the Regional Reduction Plan has additional details of these reduction measures.

The Regional Reduction Plan includes emission inventories, forecasted emissions, a reduction target and reduction measures and quantification demonstrating that the reduction measures achieve the reduction target for the City of Chino.

The proposed project will result in a reduction of GHG emissions. Therefore, this impact would be ***less than significant***. No mitigation is required.

Threshold	Would the project conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

The proposed project is a GHG reduction plan and includes a baseline GHG emissions inventory for the year 2008, an emission reduction target for the year 2020, a forecasted emissions inventory under a business-as-usual scenario for 2020, and a reduced 2020 inventory that demonstrates the emissions reductions achieved with the implementation of the Regional Reduction Plan reduction measures. Table 4.3.7-2 summarizes the 2008 GHG emissions for the City. The emissions in 2008 totaled 1.03 MMT CO_2e. The largest source of emissions was transportation, followed closely by energy use.

Table 4.3.7-2 GHG Emission Inventories and Reductions in the City of Chino

Category	*Metric tons of CO_2e*				
Emission Source	2008	2020 BAU	Plan Reductions	2020 with Plan	% Reduction
Energy	403,585	456,978	119,138	337,840	26.1%
On-Road Transportation	407,132	443,060	117,200	325,860	26.5%
Off-road Equipment	82,908	90,661	8,100	82,562	8.9%
Solid Waste	16,239	17,305	2,077	15,227	12.0%
Agriculture	101,287	51,623	0	51,623	0.0%
Wastewater Treatment	3,057	3,613	232	3,381	6.4%
Water Conveyance	17,684	21,736	2,432	19,305	11.2%
GHG Performance Standard for New Development[a]	—	—	286	—	—
Total	***1,031,892***	***1,084,975***	***249,465***	***835,511***	***23.0%***
Reduction Target	**—**	**—**	**207,867**	**877,108**	**19.2%**
Does the Plan Meet the Reduction Target?	—	—	Yes	Yes	Yes
Reductions Beyond Target	**—**	**—**	***41,597***	**—**	**—**
Excluded Stationary Sources under Title V Permits[b]	207,650	244,412	—	—	—

Values may not sum due to rounding.

a. The GHG Performance Standard for New Development is not a sector of the inventory, but it contributes toward the reduction target by promoting reductions in multiple sectors. See the Regional Reduction Plan Chapter 4 for a complete description of this measure.

b. Excluded from target setting and reductions due to lack of jurisdictional control (see Analytical Method section, above).

The 2020 BAU emissions inventory for the City was estimated in the Regional Reduction Plan using the General Plan and SCAG growth rates for the City from 2008 to the year 2020. The BAU inventory represents the projected City emissions without the incorporation of recently adopted sustainability measures or reduction measures included in the proposed project. Table 4.3.7-2 summarizes the 2020 BAU emissions inventory. The emissions are an estimated at 1.08 MMT CO_2e, an increase of 53,083 MT CO_2e (or 5 percent) from the 2008 baseline. Unlike the 2008 inventory, the largest source of emissions is predicted to be energy use followed closely by transportation. The difference between the BAU-forecasted emissions and the established reduction target for the year 2020 is 207,867 MT CO_2e. This is the amount the City must reduce in order to reach their target. Implementation of the Regional Reduction Plan reduces 249,465 MT CO_2e of emissions in 2020 which exceeds the reduction goal by approximately 41,597 MT CO_2e. This is a reduction of approximately 23 percent in 2020. Therefore the Regional Reduction Plan fulfills its own GHG reduction planning.

AB 32 is implemented through the Scoping Plan which is the statewide plan for the reduction of GHG emissions. The Regional Reduction Plan builds complements the statewide efforts of the Scoping Plan by building upon the reduction measures administered by the State. For example, the Regional Reduction Plan Reduction Measure Energy-1 (Energy Efficiency for Existing Buildings) implements the energy efficiency retrofits contemplated in the Scoping Plan. Solar installation for new and existing housing and commercial buildings shown in the reduction measures of the Regional Reduction Plan, provide additional renewable energy sources beyond what was contemplated in the AB 32 Scoping Plan. In

addition, the AB 32 Scoping Plan shows that statewide emissions would be reduced by approximately 29 percent below 2020 BAU. The Chino chapter of the Regional Reduction Plan demonstrates that the City reduces emissions by 23 percent, which exceeds its fair share of 15 percent below the baseline year. All of the reduction measures in the Chino chapter of the Regional Reduction Plan complement the reduction efforts of the AB 32 Scoping Plan. Therefore, the Regional Reduction Plan does not conflict with the AB 32 Scoping Plan.

Descriptions of the reduction measures are shown in Section 4.3.0 of this EIR and are described in further detail in Chapter 4 of the Regional Reduction Plan.

SB 375 requires SCAG to provide a Sustainable Communities Strategy (SCS) that will reduce GHG emissions from passenger vehicles and achieve the Regional Reduction Targets for GHG emissions from light-duty autos and trucks in the SCAG area. The SCS achieves the Regional Reduction Targets by providing changes in land use patterns that promote reductions in VMT and vehicle trips including transit oriented development with a mix of residential and commercial land uses that promote the use of transit rather than individual vehicles. Note that SCAG does not have land use authority in developing a land use pattern that will fulfill the SCS. Because of this, the land use patterns envisioned in the SCAG SCS need to be implemented by the local jurisdictions that have that land use authority.

- **On-Road-1.2: Other Transit Improvements (Regional)**—SANBAG and Chino will work with local and regional transit agencies to secure the following services.
  - Additional Bus Rapid Transit routes, and other transit choices such as shuttles and rail, beyond what is outlined in the SANBAG LRTP.
  - Convenient feeder service from multimodal transit center to downtown employment centers.
  - Regionwide bus/transit passes.
  - Park-and-ride lots.
  - New opportunities to finance further transit service for the elderly, handicapped, and recreational purposes.
  - Shuttle service to transport facilities (e.g., park-and-ride lots).
  - Idling limits for transit fleets.
- **On-Road-1.3: Public Transit Funding (Regional)**—SANBAG and the City of Chino will collaborate with a broad range of agencies and organizations to improve and expand funding for public transit infrastructure and operations.
- **On-Road-1.4: Adopt Land Use Patterns to Favor Transit-Oriented Development**—The Chino Plan provides the changes in land use patterns to further prioritize transit-oriented development along existing and planned transit facilities. This strategy could build on one of the alternatives considered in the LRTP alternative, which redistributes population and employment growth to transit corridors, and promotes transit oriented development at station areas.
- **On-Road-1.5: Nonmotorized Zones (Local)**—The City of Chino is providing urban nonmotorized zones in downtown areas where feasible and considering establishing a goal for conversion of downtown roadway miles to transit, linear parks, or other nonmotorized zones

(California Air Pollution Control Officers Association 2010) and provide for the following services:

> Monitor traffic and congestion to determine roadways that should be targeted for improvements.

> Evaluate potential efficiency gains from further signal synchronization. Synchronize traffic signals throughout the city and with adjoining cities while allowing free flow of mass transit systems. Require continuous maintenance of the synchronization system

> Allow for more-efficient bus operation, including possible signal preemption, and expand signal-timing programs where air quality benefits can be demonstrated.

- **On-Road-1.6: Traffic Calming (Local)**—The City of Chino will provide traffic calming measures to encourage people to walk or bike instead of using a vehicle.
- **On-Road-1.7: Traffic Signal Synchronization (Local)**—The City of Chino is improving travel speed by enhanced signal synchronization.
- **On-Road-1.10: Employer Provided Fringe Benefits (Local)**—The City of Chino is encouraging the use of telecommuting and alternative work schedules for employees and other employer benefits to reduce VMT, including a Guaranteed Ride Home Program.3
- **On-Road-1.11: Pedestrian Bicycle Lanes (Local/Regional)**—The City of Chino has created bicycle lanes directed to the location of schools and major employment districts.
- **On-Road-1.12: Pedestrian and Bicycle Network Improvements (Local/Regional)**—The City of Chino is improving the existing pedestrian and bicycle network as follows:

> Encourage the development of bicycle stations, attended parking, and other attended bicycle parking support facilities at intermodal hubs.

> Establish a network of multiuse trails to facilitate safe and direct off-street bicycle and pedestrian travel. Provide bike racks along these trails at secure, lighted locations.

> Evaluate and consider free bicycles for public use and/or charge a nominal fee for their use.

> Amend or implement a development code to include standards for provision of safe pedestrian and bicyclist accommodations, including "Complete Streets" policies that foster equal access by all users, including pedestrians and bicyclists. Include standards in the design of roadways. As appropriate, require new development and redevelopment projects to address bicycle and pedestrian access internally and to other areas through easements; safe access to public transportation and construction of paths that connect with other nonmotorized routes; and safe road crossings at major intersections for school children and seniors.

> Apply for regional, state, and federal grants for bicycle and pedestrian infrastructure projects. Consider using state gas tax subventions, sales tax funds, other funding sources, and development exactions/impact fees to provide bicycle and pedestrian facilities.

> Prohibit projects that impede bicycle and walking access, e.g., large parking areas that cannot be crossed by nonmotorized vehicles, and new residential communities that block through-access on existing or potential bicycle and pedestrian routes.

> Develop and implement a bicycle safety education program to teach drivers and bike riders the laws, riding protocols, routes, safety tips, and emergency maneuvers to increase confidence, safety, and frequency of use for new and existing bike riders.

- **On-Road-1.13: Alternative Fuel Infrastructure (Local/Regional)**—SANBAG and the City of Chino promote the necessary facilities and infrastructure to encourage the use of privately owned low- or zero-emission vehicles such as electric vehicle charging facilities and conveniently locate alternative fueling stations. Convert public transit, street sweeping, and refuse fleets to alternative fuels and provide supporting infrastructure. Examine the use of smaller, more fuel-efficient taxicabs and offering incentives to taxicab owners to use gas-electric hybrid vehicles.
- **On-Road-1.14: School Programs and Outreach (Local)**—The City of Chino collaborates with local public schools districts to expand school bus services and routes. Encourage ridesharing programs in private schools to match parents by geographical location for student transport including the following.

> Continue to provide public education and information about options for reducing motor vehicle related GHG emissions. Include information on trip reduction; trip linking; public transit; biking and walking; vehicle performance and efficiency (e.g., keeping tires inflated); low- or zero-emission vehicles; and car and ride sharing.

In addition Chino will participate in the Regional Reduction Plan reduction measure On-Road-2 ("Smart Bus" Technology), which helps implement the SCS within Chino.

- **On-Road-2 "Smart Bus" Technology**—Collaborate with Omnitrans to implement "Smart Bus" technology, global positioning system (GPS), and electronic displays at all transit stops by 2020 to provide customers with "real-time" arrival and departure time information (California Air Pollution Control Officers Association 2009). Smart Bus Technologies include Automatic Vehicle Location (AVL) systems and real-time passenger information at bus stations. Omnitrans plans to implement these technologies systemwide on all bus routes serving San Bernardino Valley (Omnitrans service area) to enable information sharing, enhance rider services, and attract potential riders. The AVL system has already been implemented. The Bus Arrival Prediction Information System (BAPIS) would be installed in two phases. In Phase I, real-time rider information would be available via text messaging, Quick Response (QR), website, Interactive Voice Response (IVR), and mobile phone devices. Completed implementation is slated for December 2012. In Phase II, Omnitrans will install electronic signs at all major transit hubs and The State of California has set specific targets for reducing greenhouse gas emissions from the burning of fossil fuels in both power plants and vehicles by adopting various regulations. In addition, state energy efficiency and renewable requirements provide another level of reductions. In order to provide credit to Chino for regulatory actions already taken or planned by the provide General Transit Feed Specification (GTFS) data to the general public to build apps for mobile devices like smartphones and tablet computers. Phase II completion is slated for December 2013. GHG emissions are expected to decrease because the AVL technologies could lead to more fuel efficient bus operations for Omnitrans and the BAPIS technologies could potentially attract more transit riders who may switch modes from automobiles. Omnitrans' Demand Response Services, OmniLink and Access, do not operate on a fixed schedule or route and are not included in this analysis. Omnitrans is primarily responsible for this measure. The City of Chino will coordinate with Omnitrans as appropriate.

The following discussion summarizes the General Plan goals, objectives, and their supporting policies that correlate with the transportation reduction measure implementing the SCS within the City of Chino:

On-Road Transportation-2 (Smart Bus Technologies)

Goal TRA-4 Maximize the efficiency of the existing transportation network throughout Chino with the use of Intelligent Transportation Systems (ITS) strategies.

Objective LU-5.2 Review fee structures to provide financial and administrative incentives to support desired land uses and development patterns, and alternative modes of transportation.

Policy TRA-14.1 **P1.** The City shall work with transit agencies to prioritize funding for expanded transit service and transit service with lower emissions.

Objective TRA-14.2 Promote the use of low and zero emission vehicles, and alternative fuels, and other measures that directly reduce emissions from motor vehicles.

In addition the following General Plan Policies facilitates implementation of the SCS within Chino:

Objective LU-1.2 Create and maintain neighborhoods that facilitate walking and bicycling in lieu of car travel.

Objective LU-1.2 Connect established and new areas of the City with one another.

Objective TRA-10.2 Increase the connectivity, safety and convenience of the bicycle network.

Objective TRA-11.1 Increase the pedestrian share of travel within Chino.

Policy AQ-1.1 **P1.** The City shall promote land use patterns that reduce the number and length of motor vehicle trips.

Objective LU-5.2 Review fee structures to provide financial and administrative incentives to support desired land uses and development patterns, and alternative modes of transportation. The Regional Reduction Plan provides the GHG reductions contemplated by SB 375 by implementing SCAG's SCS strategy in Chino. Therefore, this impact is ***less than significant***. No mitigation is required.

Cumulative Impacts

A single project or City cannot produce enough GHG emissions to change the climate. Global climate change is the result of the combined impact of all GHG emissions being emitted worldwide by past, existing, and future sources of emissions. Therefore, the analysis of GHG emissions is cumulative in nature, and no separate analysis is required.

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4.3.8 Hazards/Hazardous Materials

This section of the EIR analyzes the potential environmental effects on hazards/hazardous materials, including hazardous materials, hazardous waste disposal, airport safety, emergency preparedness, and wildfire potential, in the City of Chino from implementation of the Regional Reduction Plan. Geologic and flood hazards are addressed separately in Section 4.3.7 (Geology/Soils) and Section 4.3.9 (Hydrology/Water Quality), respectively. Data for this section were taken from the Chino General Plan (July 2010a) and associated environmental impact report (January 2010b). Full reference-list entries for all cited materials are provided at the end of this section.

No comment letters addressing hazards/hazardous materials were received in response to the notice of preparation (NOP) circulated for the Regional Reduction Plan.

Environmental Setting

Hazardous Materials and Hazardous Waste

Hazardous materials refer generally to hazardous substances that exhibit corrosive, poisonous, flammable, and/or reactive properties and have the potential to harm human health and/or the environment. Hazardous materials are used in products (household cleaners, industrial solvents, paint, pesticides, etc.) and in the manufacturing of products (e.g., electronics, newspapers, plastic products). Hazardous materials can include petroleum, natural gas, synthetic gas, acutely toxic chemicals, and other toxic chemicals that are used in agriculture, commercial, and industrial uses; businesses; hospitals; and households. Accidental releases of hazardous materials can occur from a variety of causes, including highway incidents, warehouse fires, train derailments, shipping accidents, and industrial incidents.

Regulatory Framework

There are many federal, state, and local programs that regulate the use, storage, and transportation of hazardous materials and hazardous waste, and they are constantly changing. Federal and state statutes, as well as local ordinances and plans regulate hazardous waste management. These regulations can reduce the danger hazardous substances may pose to people and businesses under normal daily circumstances and as a result of emergencies and disasters.

Federal

Hazardous Materials and Hazardous Waste

United States Environmental Protection Agency (USEPA)

The USEPA is the primary federal agency that regulates hazardous materials and waste. In general, the USEPA works to develop and enforce regulations that implement environmental laws enacted by Congress. The agency is responsible for researching and setting national standards for a variety of environmental programs, and delegates to states and tribes the responsibility for issuing permits and for monitoring and enforcing compliance. USEPA programs promote handling hazardous wastes safely, cleaning up contaminated land, and reducing trash. Under the authority of the RCRA and in cooperation

with state and tribal partners, the Waste Management Division manages a hazardous waste program, an underground storage tank program, and a solid waste program that includes development of waste reduction strategies such as recycling.

Resource Conservation and Recovery Act (RCRA)

The Resource Conservation and Recovery Act (RCRA) of 1976 is the principal federal law that regulates the generation, management, and transportation of waste. Hazardous waste management includes the treatment, storage, or disposal of hazardous waste. Treatment is any process that changes the physical, chemical, or biological character of the waste to reduce its potential as an environmental threat. Treatment can include neutralizing the waste, recovering energy or material resources from the waste, rendering the waste less hazardous, or making the waste safer to transport, dispose of, or store.

The RCRA gave the USEPA the authority to control hazardous waste from "cradle to grave," that is, from generation to transportation, treatment, storage, and disposal. The RCRA also set forth a framework for the management of nonhazardous wastes. The 1986 amendments to RCRA enabled the USEPA to address environmental problems that could result from underground tanks storing petroleum and other hazardous substances. It should be noted that RCRA focuses only on active and future facilities and does not address abandoned or historical sites. The federal Hazardous and Solid Waste Amendments are the 1984 amendments to RCRA that required phasing out land disposal of hazardous waste. Some of the other mandates of this strict law include increased enforcement authority for the USEPA, more stringent hazardous waste management standards, and a comprehensive underground storage tank program.

Comprehensive Environmental Response, Compensation, and Liability Act

The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980, commonly known as the Superfund, was enacted to protect the water, air, and land resources from the risks created by past chemical disposal practices such as abandoned and historical hazardous wastes sites. Through the act, the USEPA was given power to seek out those parties responsible for any release and assure their cooperation in the cleanup. This federal law created a tax on the chemical and petroleum industries that went to a trust fund for cleaning up abandoned or uncontrolled hazardous waste sites. CERCLA also enabled the revision of the National Contingency Plan, which provided the guidelines and procedures needed to respond to releases and threatened releases of hazardous substances, pollutants, or contaminants. The National Contingency Plan also established the National Priority List (NPL) of sites, which are known as Superfund sites. CERCLA was amended by the Superfund Amendments and Reauthorization Act on October 17, 1986.

Superfund Amendments and Reauthorization Act

SARA reauthorized CERCLA to continue cleanup activities around the country. Several site-specific amendments, clarifications, and technical requirements were added to the legislation, including additional enforcement authorities. SARA Title III also authorized the Emergency Planning and Community Right-to-Know Act.

Emergency Planning and Community Right-to-Know Act

EPCRA was enacted by Congress as the national legislation on community safety. This law was designated to help local communities protect public health, safety, and the environment from chemical hazards. The primary purpose of EPCRA is to inform communities and citizens of chemical hazards in their areas by requiring businesses to report the locations and quantities of chemicals stored on-site to state and local agencies. These reports help communities prepare to respond to chemical spills and similar emergencies. EPCRA Section 3131 requires manufacturers to report releases to the environment (air, soil, and water) of more than 600 designated toxic chemicals; report off-site transfers of waste for treatment or disposal at separate facilities; pollution prevention measures and activities; and participate in chemical recycling. These annual reports are submitted to the USEPA and state agencies. The USEPA maintains and publishes a database that contains information on toxic chemical releases and other waste management activities by certain industry groups and federal facilities. This online, publicly available, national digital database is called the Toxics Release Inventory (TRI), and was expanded by the Pollution Prevention Act of 1990.

To implement EPCRA, Congress required each state to appoint a State Emergency Response Commission (SERC) to coordinate planning and implementation activities associated with hazardous materials. The SERCs were required to divide their states into Emergency Planning Districts and to name a Local Emergency Planning Committee (LEPC) for each district. In California, the SERC oversees six LEPCs throughout the state. The Governor's Office of Emergency Services (OES) coordinates and provides staff support for the SERC and LEPCs. Broad representation by fire fighters, health officials, government and media representatives, community groups, industrial facilities, and emergency managers ensures that all necessary elements of the planning process are represented.

Toxic Substances Control Act

The Toxic Substances Control Act of 1976 was enacted by Congress to give the USEPA the ability to track the 75,000 industrial chemicals currently produced or imported into the United States. The USEPA repeatedly screens these chemicals and can require reporting or testing of that may pose an environmental or human health hazard. It can ban the manufacture and import of those chemicals that pose an unreasonable risk. Also, the USEPA has mechanisms in place to track the thousands of new chemicals that industry develops each year with either unknown or dangerous characteristics. It then can control these chemicals as necessary to protect human health and the environment. The act supplements other federal statutes, including the Clean Air Act and the TRI under EPCRA.

Airport Hazards

Federal Aviation Administration (FAA)

The basic responsibilities of the Federal Aviation Administration (FAA), under the US Department of Transportation, are the regulation of civil aviation to promote safety, airspace and air traffic management, and the regulation of commercial space transportation. CFR contains standards for aircraft noise emission levels.

Fire Hazards

Federal Emergency Management Agency (FEMA)

The Federal Emergency Management Agency (FEMA) coordinates the federal government's role in preparing for, preventing, mitigating the effects of, responding to, and recovering from all domestic disasters, whether natural or man-made, including fire and acts of terror. The U.S. Fire Administration, a department within FEMA, is the lead Federal agency for fire data collection, public fire education, fire research and Fire Service training.

State

Hazardous Materials and Hazardous Waste

California Department of Toxic Substances Control

California Department of Toxic Substances Control (DTSC) is a department of California Environmental Protection Agency (Cal/EPA), which authorizes DTSC to carry out the RCRA program in California to protect people from exposure to hazardous wastes. The department regulates hazardous waste, cleans up existing contamination, and looks for ways to control and reduce the hazardous waste produced in California primarily under the authority of RCRA and in accordance with the California Hazardous Waste Control Law (California Health and Safety Code Division 20, Chapter 6.5) and the Hazardous Waste Control Regulations (California Code of Regulations [CCR] Title 22, Divisions 4 and 4.5). Permitting, inspection, compliance, and corrective action programs ensure that people who manage hazardous waste follow state and federal requirements and other laws that affect hazardous waste specific to handling, storage, transportation, disposal, treatment, reduction, cleanup, and emergency planning. San Bernardino County, including the City of Chino, is in DTSC's Southern California region.

DTSC cleans up or oversees approximately 220 hazardous substance release sites at any given time and completes an average of 125 cleanups each year. An additional 250 sites are listed on DTSC's EnviroStor database of properties that may be contaminated. DTSC also maintains a Site Mitigation and Brownfields Reuse Program Database.

Under the DTSC, the Statewide Compliance Division (SCD) administers the technical implementation of the state's Unified Program, a consolidation of six environmental programs at the local level. This program was established under the amendments to the California Health and Safety Code made by Senate Bill 1082 in 1994. The six programs that make up the Unified Program are:

- Hazardous Materials Business Plan/Emergency Response Plan
- Hazardous Waste/Tiered Permitting
- Underground Storage Tanks
- Aboveground Storage Tanks Spill Prevention Control and Countermeasures
- California Accidental Release Prevention Program (CalARP)
- Uniform Fire Code Hazardous Materials Management Plan

The SCD also conducts triennial reviews of Unified Program agencies to ensure their programs are consistent statewide, conform to standards, and deliver quality environmental protection at the local level. SCD also carries out the inspections, enforcement, and complaint response at the state's hazardous waste generators, facilities, and transporters and oversees the hazardous waste generator and on-site waste treatment surveillance and enforcement program carried out by local Unified Programs.

Hazardous Material Spill/Release Notification Guidance

All significant spills, releases, or threatened releases of hazardous materials must be immediately reported. Federal and state emergency notification is required for all significant releases of hazardous materials. Requirements for immediate notification of all significant spills or threatened releases cover owners, operators, persons in charge, and employers. Notification is required regarding significant releases from facilities, vehicles, vessels, pipelines, and railroads. Many state statutes require emergency notification of a hazardous chemical release:

- Health and Safety Codes Sections 25270.7, 25270.8, and 25507
- Vehicle Code Section 23112.5
- Public Utilities Code Section 7673, (PUC General Orders #22-B, 161)
- Government Code Sections 51018, 8670.25.5(a)
- Water Code Sections 13271, 13272
- California Labor Code Section 6409.1(b)10

In addition, all releases that result in injuries or workers harmfully exposed must be immediately reported to California Occupational Safety and Health Administration (California Labor Code Section 6409.1[b]). For additional reporting requirements, also refer to the Safe Drinking Water and Toxic Enforcement Act of 1986, better known as Proposition 65, and California Labor Code Section 9030.

Airport Hazards

California Department of Transportation

California Department of Transportation, Division of Aeronautics, is responsible for airport safety in California. The State Aeronautics Act, Public Utilities Code (PUC) Sections 21001 et seq., is the foundation for the Department's aviation policies. The Aeronautics Division issues permits for and annually inspects hospital heliports and public-use airports; makes recommendations regarding proposed school sites within 2 miles of an airport runway; and authorizes helicopter landing sites at or near schools. Aviation system planning provides for the integration of aviation into transportation system planning on a regional, statewide, and national basis. The Division of Aeronautics administers noise regulation and land use planning laws that foster compatible land use around airports and encourages environmental mitigation measures to lessen aircraft noise, air pollution, and other impacts caused by aviation. The Division of Aeronautics publishes the California Airport Land Use Commission (ALUC) Planning Handbook. The California ALUC Planning Handbook provides planning guidance to ALUCs and counties and cities with jurisdiction over airport area land uses. The purpose of the handbook is to support the State Aeronautics Act. The handbook allows jurisdictions flexibility in determining air safety zones that represent areas of assumed accident potential.

Fire Hazards

California Department of Forestry and Fire Protection

The California Department of Forestry and Fire Protection (CALFIRE) is dedicated to the fire protection and stewardship of over 31 million acres of California's wildlands. The Office of the State Fire Marshal (OSFM) supports the CDF mission to protect life and property through fire prevention engineering programs, law and code enforcement, and education. The OSFM provides for fire prevention by enforcing fire-related laws in state-owned or -operated buildings, investigating arson fires in California, licensing those who inspect and service fire protection systems, approving fireworks as safe and sane for use in California, regulating the use of chemical flame retardants, evaluating building materials against fire safety standards, regulating hazardous liquid pipelines, and tracking incident statistics for local and state government emergency response agencies.

California Uniform Fire Code

CCR Title 24, Part 9, is based on the 2000 Uniform Fire Code and includes amendments from the State of California fully integrated into the code. The California Fire Code contains fire safety-related building standards that are referenced in other parts of CCR Title 24.

California Fire Plan

The California Fire Plan is the state's road map for reducing the risk of wildfire through planning and prevention to reduce firefighting costs and property losses, increase firefighter safety, and to contribute to ecosystem health. The California Fire Plan is a cooperative effort between the State Board of Forestry and Fire Protection and CALFIRE.

Regional

Hazardous Materials and Hazardous Waste

Certified Unified Program Agency (CUPA) is a regional or local agency that has been certified by Cal/EPA to implement the local Unified Program. The CUPA can be a county, city, or joint powers authority. A participating agency is a local agency that has been designated by the local CUPA to administer one or more Unified Programs within their jurisdiction on behalf of the CUPA. A designated agency is a local agency that has not been certified by Cal/EPA to become a CUPA but is the responsible local agency that would implement the six Unified Programs until they are certified.

The Unified Program is related to the state SERCs and LEPCs that were established under both federal (EPCRA) and state authority relative to the Hazardous Materials Business Plan/Emergency Response Plan. While the CUPA structure does not specifically incorporate the SERC and LEPCs, both SERC and CUPA have found it beneficial to establish strong communication and coordination on hazardous materials issues. The CUPA board now has a representative on the SERC, and members of LEPCs are also CUPA board members. Common issues include ensuring that hazardous materials, waste, and tank programs maintain strong coordination and communication for maximum consistency in program implementation. Shared data, joint resources, common forms, provision of emergency information, and regulatory review are other interests that are coordinated by the CUPA Board and SERC/LEPCs.

San Bernardino County is a member of the Southern California Hazardous Waste Management Authority, and works on regional level to solve hazardous waste problems. The San Bernardino County Fire Department, Hazardous Materials Division (HMD) is designated by the state as the CUPA for the County of San Bernardino. The fire department focuses on the management of specific environmental programs at the local government level to address the disposal, handling, processing, storage, and treatment of local hazardous materials and waste products. The CUPAs are also responsible for implementing the leak prevention element of the Underground Storage Tank (UST) Program.

UST Program: Releases of petroleum and other products from USTs are the leading source of groundwater contamination in the United States. The RCRA Subtitle I established regulations governing the storage of petroleum products and hazardous substances in USTs and the prevention and cleanup of leaks. In USEPA Region 9 (California, Arizona, Hawaii, Nevada, Pacific Islands, and over 140 tribal nations) the UST program operates primarily through state agency programs with USEPA oversight.

In California, the State Water Resources Control Board (SWRCB), under the umbrella of Cal/EPA, provides assistance to local agencies enforcing UST requirements. The purpose of the UST program is to protect public health and safety and the environment from releases of petroleum and other hazardous substances. The program consists of four elements: leak prevention, cleanup, enforcement, and tank tester licensing. In September 2004, the SWRCB adopted regulations that require electronic submittal of information for groundwater cleanup programs, including groundwater analytical data, the surveyed locations of monitoring wells, and other data. The SWRCB's Geotracker system currently has information submitted by responsible parties for over 10,000 leaking UST (LUST) sites statewide and has been extended to include all SWRCB groundwater cleanup programs including the LUST, non-LUST (Spill, Leaks, Investigation, and Cleanup), Department of Defense, and landfill programs.

The San Bernardino County Fire Department HMD is charged with the responsibility of conducting compliance inspections of regulated facilities in San Bernardino County. Regulated facilities are those that handle hazardous materials, generate or treat hazardous waste, and/or operate an underground storage tank. All new installations of underground storage tanks require an inspection, along with the removal, under strict chain-of-custody protocol, of the old tanks.

County of San Bernardino Hazardous Waste Management Plan

Assembly Bill 2948 (Chapter 1504, Statutes of 1986), commonly known as the Tanner Bill, authorized counties to prepare Hazardous Waste Management Plans (HWMP) in response to the need for safe management of hazardous wastes. The County of San Bernardino HWMP was adopted by the County of San Bernardino Board of Supervisors and approved by the California Department of Health Services in February 1990. The County HWMP serves as the primary planning document for the management of hazardous waste in San Bernardino County. It identifies the types and amounts of wastes generated in the county; establishes programs for managing these wastes; identifies an application review process for the siting of specified hazardous waste facilities; identifies mechanisms for reducing the amount of waste generated in the county; and identifies goals, policies, and actions for achieving effective hazardous waste management. Hazardous materials and waste are managed by the San Bernardino County Fire Department HMD. As further required by the state, all cities in San Bernardino County must also adopt a City HWMP.

Hazardous Materials Disclosure Programs

All businesses that handle more than a specified amount of hazardous materials or extremely hazardous materials, termed a reporting quantity, are required to submit a Hazardous Materials Business Plan to its local CUPA.

According to the San Bernardino County Fire Department HMD guidelines, the preparation, submittal, and implementation of a business plan is required by any business that handles a hazardous material or a mixture containing a hazardous material in quantities equal to, or greater than, those outlined below:

- Any business that uses, generates, processes, produces, treats, stores, emits, or discharges a hazardous material in quantities at or exceeding 55 gallons, 500 pounds, or 200 cubic feet (compressed gas) at any one time in the course of a year
- All hazardous waste generators, regardless of quantity generated; any business that handles, stores, or uses Category I or II pesticides, as defined by the federal Insecticide, Fungicide, and Rodenticide Act, regardless of amount
- Any business that handles DOT Hazard Class 1 (explosives, found in 49 CFR), regardless of amount
- Any business that handles extremely hazardous substances in quantities exceeding the threshold planning quantity; extremely hazardous substances are designated pursuant to the EPCRA Section 302, and are listed in 40 CFR Part 355
- Any business subject to the EPCRA, also known as SARA Title III; generally EPCRA includes facilities that handle hazardous substances above 10,000 pounds or extremely hazardous substances above threshold planning quantities; there are some exceptions, including retail gas stations with up to 75,000 gallons of gasoline or 100,000 gallons of diesel fuel in USTs that meet the 1998 upgrade requirements
- Any business that handles radioactive material that is listed in Appendix B of Chapter 1 of 10 CFR.

Businesses are required to update their business plan with the San Bernardino County Fire Department HMD annually. The entire plan must be reviewed and recertified every three years. In addition, the plan must be revised within 30 days of change of owner, business address, business name, emergency contact information, inventory, or other site conditions that may significantly impact emergency response.

Hazardous Materials Incident Response

Under Title III of SARA, the LEPC is responsible for developing an emergency plan for preparing for and responding to chemical emergencies in that community. This emergency plan must include:

- An identification of local facilities and transportation routes where hazardous material are present
- The procedures for immediate response in case of an accident (this must include a community-wide evacuation plan)
- A plan for notifying the community that an incident has occurred
- The names of response coordinators at local facilities

- A plan for conducting exercises to test the plan

The plan is reviewed by the SERC and publicized throughout the community. The LEPC is required to review, test, and update the plan each year. The San Bernardino County Fire Department HMD is responsible for coordinating hazardous material coordination and inspection in the City.

Airport Hazards

San Bernardino County

San Bernardino County opted for an alternative to the ALUC and delegated responsibility to prepare an Airport Land Use Compatibility Plan for each airport jurisdiction. Other public agencies also provide policy guidance or promulgate standards that address regional transportation and safety issues related to airport land use compatibility planning. A Land use compatibility assessment is a part of the Chino Airport Master Land Use Plan.

The Chino Valley Independent Fire District provides structural fire protection and emergency medical services at the airport, including hazardous materials incidents.

Fire Hazards

San Bernardino County Office of Emergency Services (OES)

The OES is also a division of the San Bernardino County Fire Department and is responsible for broad disaster planning and emergency services coordination throughout the county, including the City of Chino. OES looks broadly at emergency responses to wildfires, earthquakes, or other disasters affecting the region. The goal of the OES is to improve public and private sector readiness, and to mitigate local impacts resulting from natural or man-made emergencies through disaster preparedness planning and appropriate response efforts with city departments and local and state agencies. While OES does not directly manage field operations, it manages an Incident Command Post to ensure coordination of disaster response and recovery efforts through its day-to-day program management and during an incident/disaster. The division also manages and operates the Emergency Operations Center (EOC), which is the primary coordination point for disasters and major emergencies. In the event of a disaster or an incident requiring complex coordination, preselected and trained responders report to the San Bernardino County Operational Area EOC. The 100-plus responders have been trained to perform specific functions designated under the Standardized Emergency Management System to coordinate emergency management of disasters. These responders are available 24 hours a day, 7 days a week. OES conducts annual exercises in the EOC to test the readiness of various types of disasters and large-scale emergencies.

The OES is also responsible for the countywide Emergency Management Plan (EMP), which is currently under revision. The plan identifies hazards and response, roles and responsibilities, and other key activities of government during a disaster. The office also maintains copies of the EMPs for the 24 cities/towns in the operational area. The OES assists county unincorporated communities and residents by assigning an OES Officer to assist in meeting their local planning goals and needs. These mostly isolated areas of the county may have the need for special considerations in a disaster.

Local

Hazardous Materials and Hazardous Waste

Chino Valley Independent Fire District

The fire companies in the Chino Valley Independent Fire District are trained to provide hazardous materials emergency service. Personnel are State certified Hazardous Materials specialists. The fire District inspects businesses with hazardous materials and monitors CUPA data. In addition, the Fire District conducts regular inspections to identify hazards.

City of Chino Municipal Code

City of Chino Municipal Code contains applicable regulations pertaining to hazards and hazardous materials and waste. Chapter 15.32 (Fire Code) prescribes regulations safeguarding of life and property from explosion hazards.

Chino General Plan

The Chino General Plan policies that are applicable to hazardous materials[9] are as follows:

Policy SAF4-1

P1. The City shall require adequate separation between areas where hazardous materials are present and sensitive uses such as schools, senior centers, hospitals and medical centers, residences and public facilities.

P2. When reviewing new development applications, the City shall require the necessary level of environmental investigation to ensure that soils, groundwater and buildings affected by hazardous materials would not affect the environment or health and safety of future property owners or users.

P3. The City shall promote the safe transport of hazardous materials through Chino through implementation of the following measures:

1. Prohibit the parking of vehicles transporting hazardous materials on City streets.
2. Require that new pipelines and other channels carrying hazardous materials avoid residential areas and other immobile populations to the greatest extent possible.

P4. The City shall require applicants proposing to generate hazardous waste to submit emergency response plans to the CVIFD and San Bernardino County Fire Department Hazardous Materials Division.

P5. The City shall work with households, businesses and others who generate hazardous waste to reduce overall hazardous waste in Chino.

P6. The City shall prohibit the use of Perchloroethylene (PERC) in new dry cleaning facilities.

P7. The City shall require that dry cleaners in mixed-use developments use clean technology.

[9] These policies are not a complete listing of all policies contained in the General Plan; those policies that would be most applicable to the proposed project are included here.

P8. The City shall continue to work with the San Bernardino County Fire Department Hazardous Materials Division to ensure that businesses in Chino follow the hazardous materials regulations and guidelines outlined in the "Business Emergency/Contingency Plan Guidelines and Forms" for San Bernardino County.

P9. The City shall continue to work with the San Bernardino County Fire Department Hazardous Materials Division to ensure that Chino residents have convenient access to the disposal of household hazardous wastes.

P10. The City shall continue to work with the CVIFD to monitor and regulate the storage of hazardous materials in conformance with the Uniform Fire Code.

Airport Hazards

City of Chino Municipal Code

City of Chino Municipal Code contains applicable regulations pertaining to airports in the City. Chapter 20.09 covers overlay district regulations to establish standards and regulations that apply to airport districts in addition to the provisions provided by the base zoning district..

Chino General Plan

The Chino General Plan policies that are applicable to airport hazards[10] are as follows:

Policy SAF5-1 **P1.** The City shall require all construction in Chino to be consistent with the required setbacks and height restrictions for the Chino Airport as determined by the Federal Aviation Administration, the Chino Airport Master Plan and the Chino Airport Comprehensive Land Use Plan.

Fire Hazards

City of Chino Municipal Code

City of Chino Municipal Code contains applicable regulations pertaining to fire hazards in the City. Chapter 15.32 (Fire Code) prescribes regulations governing fire safety in the City.

Chino General Plan

The Chino General Plan policies that are applicable to fire hazards[11] are as follows:

Policy SAF3-1 **P1.** The City shall require all development in areas of potential wildland fire hazards to include the following:

- Clearance around structures
- Fire-resistant ground cover
- Fire-resistant roofing materials

[10] These policies are not a complete listing of all design policies contained in the General Plan; those policies that would be most applicable to the proposed project are included here.
[11] These policies are not a complete listing of all design policies contained in the General Plan; those policies that would be most applicable to the proposed project are included here.

P2. The City shall incorporate drought-resistant and fire-resistant plants in public works projects in areas subject to wildland fires.

Policy SAF6-1 **P1.** City departments shall conduct periodic trainings with staff on emergency operations based on the Emergency Operations Plan.

P2. The City shall work with other agencies and businesses within the City to assist and support their disaster preparedness efforts.

P3. The City shall regularly review the adequacy of local infrastructure.

P4. The City shall continue to encourage residents and businesses to verify their contact information by registering for the CodeRED emergency notification system so that they may receive critical emergency information.

P5. The City shall provide information to residents and businesses on emergency preparedness, such as preparing emergency kits, developing a communications plan, implementing evacuation procedures, and updating emergency plans.

P6. The City shall regularly review the Local Hazard Mitigation Plan and make any necessary adjustments.

Policy PFS1-2 **P1.** The City shall ensure that new public and private roadways are adequate in terms of width, radius, and grade to accommodate CVIFD fire-fighting apparatus, while maintaining Chino's neighborhoods and small-town character.

P2. The City shall identify and mitigate fire hazards during the development review process.

P3. The City shall encourage the installation of interior emergency sprinkler systems, fire-safe building materials, early warning systems and sufficient water supply systems for fire suppression in new development or renovations.

P4. The City shall work with the CVIFD to plan fire station locations to maintain or enhance current response levels.

Project Impact Evaluation

Thresholds of Significance

The following thresholds of significance are based on the 2012 CEQA Guidelines Appendix G. For purposes of this EIR, implementation of the San Bernardino County Regional GHG Reduction Plan might have a significant adverse impact on hazards/hazardous materials if it would do any of the following:

- Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials
- Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment
- Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school

- Be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment
- If located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, result in a safety hazard for people residing or working in the project area
- If within the vicinity of a private airstrip, result in a safety hazard for people residing or working in the project area
- Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan
- Expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands

Analytic Method

The following analysis considers whether or not implementation of the Regional Reduction Plan within the City would create or increase potential hazards or inhibit the ability to respond to hazards.

Effects Not Found to Be Significant

Threshold	Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

The Regional Reduction Plan reduces GHG emissions citywide and includes reduction measures such as energy efficiency goals, energy efficiency retrofits, renewable energy generation, the reduction of vehicle trips and vehicle miles traveled (VMT) to reduce transportation related emissions, waste diversion and water conservation programs. The GHG reductions do not involve the transport or use of hazardous materials. Waste diversion programs focus on recyclable materials and are regulated by current federal and state regulations, City ordinances, and the Chino General Plan. These policies would regulate the handling of hazardous substances to reduce potential releases; exposure; and risks of transporting, storing, treating, and disposing of hazardous materials and wastes. Consequently, potential impacts as a result of implementation of the Regional Reduction Plan would be ***less than significant***. No mitigation is required.

Threshold	Would the project create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?

As stated above, the Regional Reduction Plan reduces GHG emissions citywide and includes reduction measures such as energy efficiency goals, energy efficiency retrofits, renewable energy generation, the reduction of vehicle trips and VMT to reduce transportation related emissions, waste diversion and water conservation programs. These activities do not release hazardous materials or create foreseeable upsets or accidents that would present a significant hazard to the public or the environment. The Regional Reduction Plan includes agricultural related reduction measures to capture and use methane emissions at

large dairies, but implementation of these measures would be regulated by the California health and safety code, South Coast Air Quality Management District permits, and City of Chino health and safety codes. These regulations, permits, and codes reduce the potential for upset conditions and accidents to foreseeable safe conditions within the community. The impact would be ***less than significant***. No mitigation is required.

Threshold	Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school?

Implementation of the Regional Reduction Plan will not emit hazardous emissions. Agricultural related reduction measures in the Regional Reduction Plan to capture and use methane emissions at large dairies, would reduce fugitive methane emissions currently occurring. Implementation of methane collection systems would be regulated by the California health and safety code, South Coast Air Quality Management District permits, and City of Chino health and safety codes to ensure that these systems do not emit hazardous emissions. Consequently, any potential impacts associated with emissions during implementation of the Regional Reduction Plan would be reduced to ***less than significant***. No mitigation is required.

Threshold	Would the project be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?

The Regional Reduction Plan does not propose siting reduction measures at particular locations. Siting of renewable energy generation and methane collection systems are reviewed by the City Planning to ensure that implementation of the Regional Reduction Plan does not create a hazard to the public or the environment. The impact would be ***less than significant***. No mitigation is required.

Threshold	Would the project, if located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, result in a safety hazard for people residing or working in the project area?

Chino Airport is located about 3 miles southeast of Chino. It is the policy of the City of Chino to coordinate with the airport authorities to ensure that proposed land uses within the airport safety zones are consistent with the adopted master land use plans and land use compatibility plans for the Chino Airport. The City review of proposed projects such as renewable energy generation during implementation of the Regional Reduction Plan within the airport safety zones and near the airports ensures that implementation of these types of uses near airports does not result in safety hazards to people in the area. The impact would be ***less than significant***. No mitigation is required.

Threshold	Would the project, if within the vicinity of a private airstrip, result in a safety hazard for people residing or working in the project area?

The Regional Reduction Plan does not propose land uses in particular areas. Implementation of reduction measures such as renewable generation facilities would be reviewed by the City to ensure that

placement of these types of facilities near a private airstrip or heliport would not create a safety hazard. The impact would be ***less than significant***. No mitigation is required.

Threshold	Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

The Regional Reduction Plan reduces GHG emissions citywide and includes reduction measures such as energy efficiency goals, energy efficiency retrofits, renewable energy generation, the reduction of vehicle trips and VMT to reduce transportation related emissions, waste diversion and water conservation programs. None of the reduction measures would alter emergency response or evacuation plans. Improvements to transit, bicycle, and pedestrian infrastructure along roadways that would serve emergency response and evacuation within the City would be reviewed by the City Planning Department to ensure adequate ingress and egress along these roadways. Therefore, the impact would be ***less than significant***. No mitigation is required.

Threshold	Would the project expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?

Goal SAF-3 calls for the City to protect lives and properties from wildland fires and hazards. Policy P1 would require all development in areas of potential wildland fire hazards to include the following: clearance around structures, fire-resistant ground cover, and fire-resistant roofing materials.

In addition to these measures, Chino is generally buffered from wildland fires due its flat topography and the limited amount of open space immediately surrounding Chino. State Route 71 separates the City from the wildland fire hazards in Chino Hills.

Facilities and infrastructure built as a result of the Regional Reduction Plan implementation within the City would be reviewed for adherence to the building and fire codes. Therefore, the impact would be ***less than significant***. No mitigation is required.

Cumulative Impacts

Because the Regional Reduction Plan does not create hazards at a project level, implementation of the Regional Reduction Plan will not create impacts related to hazards and hazardous materials that are cumulatively considerable. Therefore, ***cumulative impacts are less than significant***.

References

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4.3.9 Hydrology/Water Quality

This section of the EIR analyzes the potential environmental effects on hydrology/water quality in the City of Chino from implementation of the Regional Reduction Plan. Data for this section were taken from the Chino General Plan (July 2010a) and associated environmental impact report (January 2010b). Full reference-list entries for all cited materials are provided at the end of this section.

No comment letters addressing hydrology/water quality were received in response to the notice of preparation (NOP) circulated for the Regional Reduction Plan.

Environmental Setting

Water Quality

Local water resources include surface water from streams and creeks fed by the nearby mountains that serve to partially replenish the local groundwater basin via a system of recharge basins, recycled water, treated groundwater, and groundwater extracted from the Chino Basin. Approximately 16,291 acre-feet of water was produced and distributed in the City of Chino to residences and businesses in Fiscal Year 2008-09. Of the total amount of water, 83 percent was treated groundwater, while 17 percent came from the Agua de Lejos Water Treatment Plant.

Federal regulations require the U.S. Environmental Protection Agency (USEPA) to safeguard drinking water by establishing standards that limit the amount of substances in drinking water. In California, the Department of Public Health (DPH) also safeguards drinking water by establishing standards that are as stringent as the USEPA's. These standards, also known as maximum contaminant levels (MCLs), are established in two categories: (1) primary standard: to protect the public health and (2) secondary standard: to preserve water's aesthetic qualities such as taste, odor, clarity, and color.

The City safeguards its water supply by exceeding the monitoring frequencies required by the USEPA and DPH. The City's water distribution system is also monitored at various locations to ensure good water quality throughout the system. Groundwater is produced by the City wells and by the Chino Basin Desalter Authority which in turn delivers potable water to the City. This section describes the quality of existing groundwater, desalter water, imported water, and recycled water in Chino.

Chino Basin Groundwater

Chino Basin groundwater is a critical resource to the City. From a regulatory perspective, the use of Chino Basin groundwater to serve potable demands will be limited by drinking water standards. In August 1999, Phase 1 of the OBMP established a necessity for conducting groundwater quality and water level monitoring in order to obtain current water quality and water level data in the Chino Basin.

The groundwater quality in Chino Basin is generally good, with better groundwater quality found in the northern portion of Chino Basin where recharge occurs. Salinity and nitrate concentrations tend to be greater in the southern portion of Chino Basin than in the northern portions of the Basin. Other constituents that have the potential to impact groundwater quality from a regulatory or Basin Plan standpoint are certain volatile organic compounds (VOCs), arsenic, and perchlorate. Arsenic

concentrations greater than the water quality standard appear to be limited to the deeper aquifer in the vicinity of south Chino. Total chromium and hexavalent chromium, while currently not a groundwater issue for Chino Basin, may become so, depending on the promulgation of future standards.

The principal groundwater quality issues potentially facing the City involve total dissolved solids (TDS), nitrate, VOCs, and perchlorate.

i. **Total Dissolved Solids (TDS)**—TDS concentrations in excess of 200 mg/L indicate degradation from overlying land use. With few exceptions, areas with significant irrigated land use or dairy waste disposal histories overlie groundwater with elevated TDS concentrations. Most of these degraded areas are located south of the Pomona Freeway. The impact of agriculture on TDS in groundwater primarily is caused by fertilizer use on crops, consumptive use, and dairy waste disposal.

   The average TDS concentration in groundwater produced by City wells is approximately 314 mg/L. Much of the groundwater underlying or around The Preserve is currently degraded by high TDS concentrations. TDS concentrations near Subarea 2 range from 340 to more than 1,700 mg/L. The area north of the Chino Airport and The Preserve is characterized by TDS concentrations ranging from 230 to 1,220 mg/L.

ii. **Nitrates**—Similar to TDS, areas with significant irrigated land use or dairy waste disposal histories overlie groundwater with elevated nitrate concentrations. The primary areas of nitrate degradation are the areas formerly or currently overlain by citrus in the northern parts of the Chino Groundwater Basins, and dairy areas in the southern parts of the Basin.

   The average nitrate concentration in groundwater produced by City wells ranges from approximately 24 to 75 mg/L. Much of the groundwater underlying or around The Preserve is currently degraded by high nitrate concentrations. Nitrate concentrations in this area range from 3 to 407 mg/L.

iii. **Volatile Organic Compounds (VOCs)**—VOCs have been discovered in several discrete areas of the Chino Groundwater Basin, including the City of Pomona Water Service Area, the General Electric Flatiron Site, and Cucamonga Creek near the intersection of Archibald Avenue and Riverside Drive.

   The Chino Basin Watermaster OBMP Phase I Report indicates there are local areas with high VOCs, principally trichloroethylene (TCE). These areas include the Chino Airport, CIM, and an area southwesterly of Ontario Airport.

iv. **Perchlorate**—Perchlorate interferes with the thyroid gland's uptake of iodine to produce thyroid hormones. Normal body metabolism requires thyroid hormones, as do normal prenatal and postnatal development and growth. To protect the public from the adverse health effects of perchlorate and in the absence of drinking water standards for the contaminant, DPH established a Notification Level of 6 μg/L.

   Perchlorate had been detected in 150 wells in the Chino Basin. Historical values of perchlorate exceeding the State Notification Level have occurred in several areas of Chino Basin, including the City of Chino.

Desalter Water

The objective of the Chino Basin Desalter Authority, a joint powers agency that supplies potable water to the City and other retail water agencies, is to extract contaminated local groundwater and treat it so that it

can be used directly for domestic purposes. The Chino I Desalter has treated water quality targets of 25 mg/L for nitrate and 350 mg/L for TDS.

Imported Water

The City receives imported water through the Inland Empire Utilities Agency (IEUA) from the Metropolitan Water District of Southern California (MWD), which receives raw water from Northern California through the State Water Project (SWP). The SWP water is delivered to the Water Facilities Authority's (WFA) Agua de Lejos Water Treatment Plant through the MWD Rialto Reach of the Foothill Feeder. The WFA receives and treats SWP raw water.

The quality of water from the WFA is generally and consistently quite good, though it can vary depending on hydrologic conditions in both northern and southern California. Since 1972, the average annual TDS of SWP water from Lake Silverwood has ranged from 112 to 375 mg/L. In 2005, the City reported the following water quality concentrations for imported water from the WFA:

- TDS = 290–360 mg/L (less than the MCL)
- Nitrates = 2.4–4.7 mg/L
- VOCs = nondetectable
- Perchlorate = nondetectable

In MWD's Integrated Resources Plan (IRP) Update, water quality was identified as a possible risk to MWD's future water supply reliability. Existing supplies could be threatened in the future because of more stringent water quality regulations, and/or the discovery of a previously undetected contaminants. Impairment of the quality of imported water could directly impact the amount of water supplies available to the City.

Recycled Water

DPH has established regulations and guidelines for the use of recycled water under the California Code of Regulations Title 22. In addition, IEUA sets requirements on recycled water retailers, including the City, that are incorporated in its agreements with retailers and in IEUA Ordinance No. 69, which regulates the availability and use of recycled water.

The wastewater treatment process at IEUA's water reclamation facilities is designed so that effluent water quality will meet Title 22 requirements for non-restricted recreational use with an average level of TDS well below 450 mg/L and a total nitrogen level of less than 10 mg/L.

Flood Hazards

The City of Chino is located in the Chino Valley, a relatively flat area surrounded by hills and mountains which makes the basin susceptible to flooding. Flash-flood cycles are also common in the very dry Southern California region. Flooding in the City is primarily caused by the flooding from local streams and creeks and flooding associated with the Prado Dam, located to the southwest of Chino's City limits. The types of flooding are described below.

Local Flooding

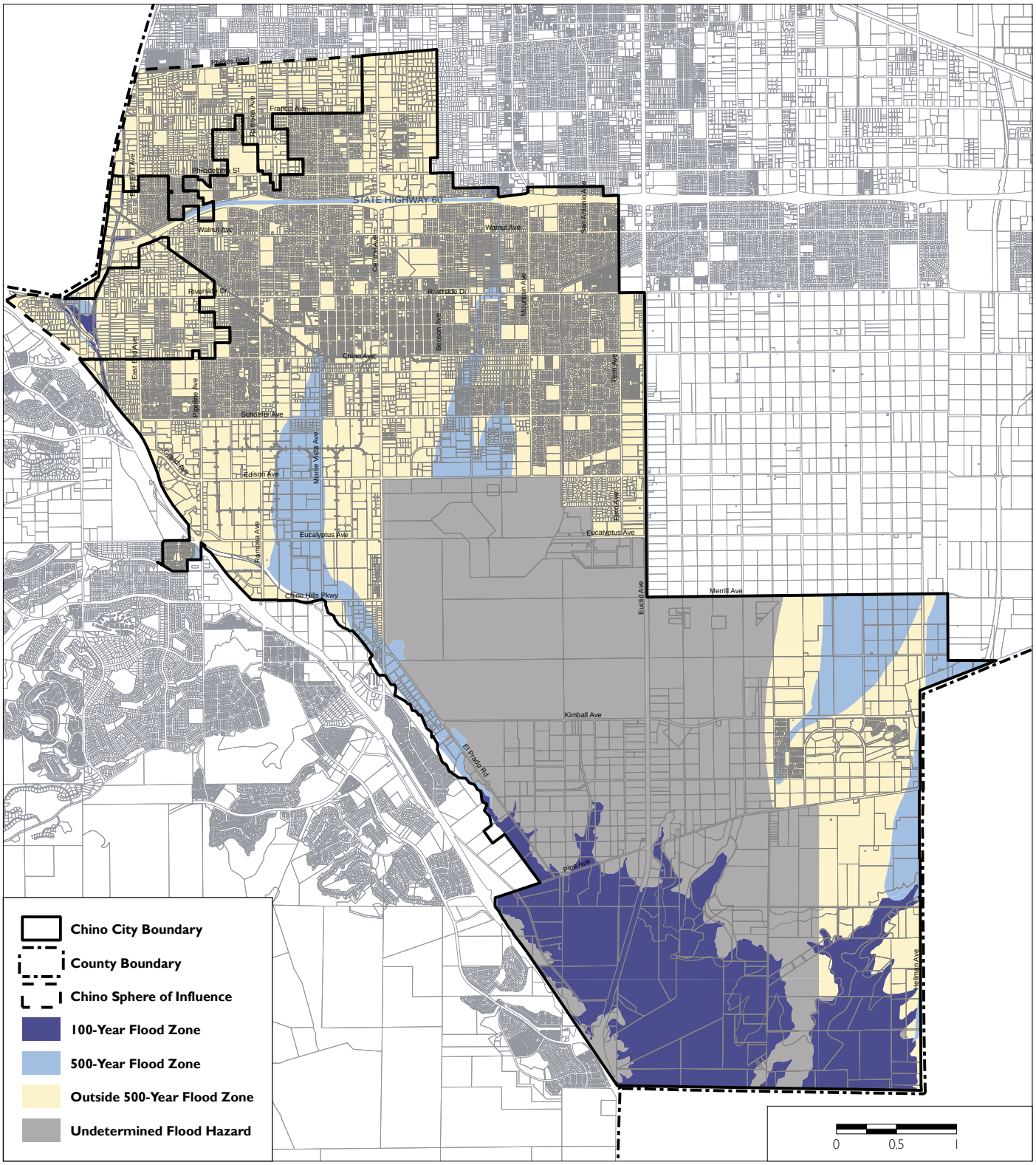
Local flooding primarily occurs in the southern portion of the City south of Pine Avenue. As shown on Figure 4.3.9-1 (FEMA Floodplains), this part of the City is located within the 100-year floodplain, as described by FEMA. This means that there is a 1 percent chance of flooding to that level in any given year. In addition, some of the areas of the City along State Route 60 (SR-60), between Monte Vista Avenue and El Prado Road at the western boundary of the City, and on Merrill Avenue at the eastern corner of the City, are located within the 500-year floodplain, meaning a 0.2 percent chance of flooding to that level in any given year.

The City of Chino, the San Bernardino County Flood Control District (SBCFCD) and the U.S. Army Corps of Engineers (USACE) manage flood control in the City. The City of Chino's Public Works Department maintains and improves the City's storm drain systems. The San Bernardino County Flood Control District maintains adequate water supplies by increasing groundwater recharge services at flood control district facilities. USACE develops and controls federally sponsored flood control projects. A portion of the City of Chino is located within USACE's Prado Flood Control Basin associated with the Prado Dam. In addition, there are several flood control channels and creeks within the City and its watershed area. These are listed below:

- The concrete-lined San Antonio Channel runs along Chino's western boundary and ultimately meets with Chino Creek, and is the responsibility of San Bernardino County Flood Control (SBCFC).
- Chino Creek, entering Chino south of SR-60, joins the San Antonio Channel, and follows the western side of the City southward. It is concrete lined upstream of Central Avenue, and a straightened earthen channel from Central Avenue to Pine Avenue. Downstream of Pine Avenue it is more natural and meanders until it flows into the Prado Flood Control Basin, and is the responsibility of USACE.

The West State Street Storm Drain begins in Ontario and flows through the City of Montclair and discharges into the San Antonio Channel. It serves as the northern-most portion of the 100-year flood system for the drainage area that includes Chino. It is a concrete-lined channel, and is the responsibility of SBCFC.

- The Chino Storm Drain, constructed alongside SR-60, joins the San Antonio Channel on the western side of the City. It provides drainage for an area of approximately 5.5 square miles between State Street and the Pomona Freeway. It is a concrete-lined channel, and is the responsibility of SBCFC.
- The concrete-lined Cypress Channel begins south of SR-60, flows through California Institution for Men (CIM), and drains into the USACE's Prado Flood Control Basin. It is concrete lined with the exception of a small unimproved earthen section located in the CIM property. It provides storm drainage to the eastern side of the City of Chino, and is the responsibility of SBCFC.
- The Magnolia Channel extends from Edison Avenue through the southern part of the City and ultimately joins with Chino Creek. It is an unimproved earthen channel, but provides some potential habitat as it passes through agricultural lands, particularly through the CIM property, and is the responsibility of the City of Chino.



NORTH
SCALE IN MILES

Source: City of Chino General Plan Draft Environmental Impact Report, January 2010.

Figure 4.3.9-1
FEMA Floodplains

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- Cucamonga Creek enters the City from the north after running through Rancho Cucamonga and Ontario in a channel. Referred to as Mill Creek in Chino, it is not channelized. It flows through the area to the south of The Preserve. Although agricultural uses have affected the creek, primarily through erosion, it is largely a natural creek. The channelized portion north of Chino-Corona Road is the responsibility of SBCFC, while the unchannelized portion south of Chino-Corona Road is the responsibility of the USACE

Dam Inundation

Flooding associated with the Prado Dam is a result of Chino being located upstream of the dam, which creates a flood risk when water in the reservoir rises to the top of the dam. When the dam was originally constructed, the maximum reservoir water surface was 556 feet above sea level. USACE and the Orange County Flood Control District (OCFD) are in the process of raising the height of the dam to allow a maximum reservoir water surface of 566 feet in order to accommodate additional flood control capacity for the region. When the raising of the dam is completed, areas below the 566-foot flood inundation line will be subject to flooding. These areas are restricted to recreation, open space, and resource management uses. OCFD is in the process of acquiring through fee or flowage easement all of the remaining privately owned property below the 566-foot level for flood control purposes. Until the dam spillway is completed and the properties are acquired, the flood inundation level will remain at its current 556-foot level. Existing land uses below the 566-foot inundation line primarily include dairies, agricultural and vacant land, as well as Prado Park and the El Prado Golf Course. The ultimate Prado Dam inundation area is shown in Figure 4.3.9-2 (Prado Dam Inundation Area).

Seiches, Tsunami, and Mudflows

The City of Chino is at low risk from damage resulting from seiches or waves generated in bodies of water. Chino is also not at risk from tsunami due to its inland location. Finally, the City is not at risk of mudflows due to its relatively flat topography. For the same reason, there is no risk from mudflow from the hills in Chino.

Regulatory Framework

Federal

United States Environmental Protection Agency (USEPA)

The USEPA is the primary federal agency that regulates water quality and water resources principally through the Clean Water Act and Safe Drinking Water Act.

Clean Water Act

The federal Water Pollution Control Act (also known as the Clean Water Act [CWA]) is the principal statute governing water quality. The CWA establishes the basic structure for regulating discharges of pollutants into the waters of the United States and gives the USEPA the authority to implement pollution control programs, such as setting wastewater standards for industry. The statute's goal is to restore, maintain, and preserve the integrity of the nation's waters. The CWA regulates both the direct and indirect discharge of pollutants into the nation's waters and sets water quality standards for all

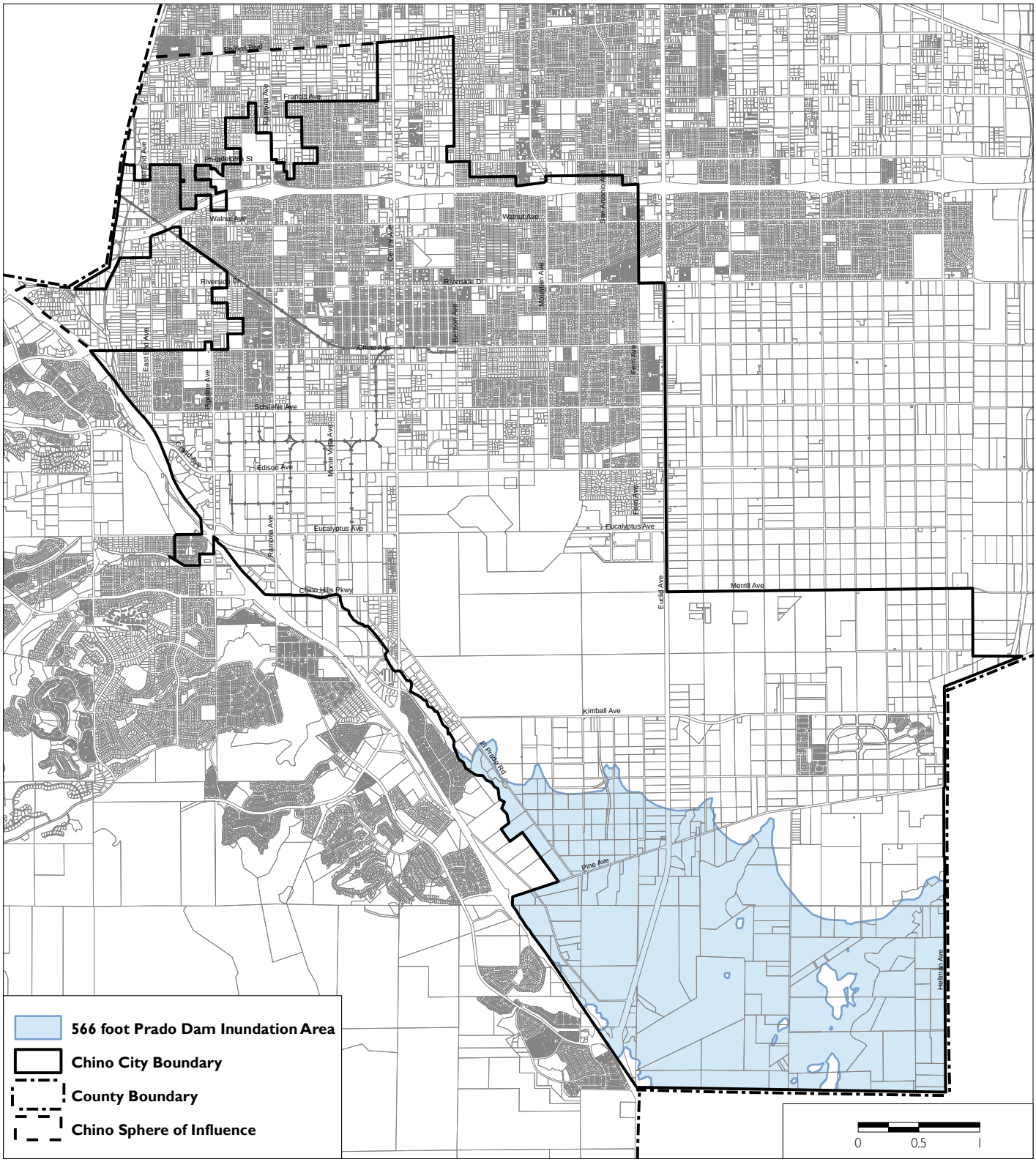
contaminants in surface waters. It is unlawful for any person to discharge any pollutant from a point source into navigable waters, unless a permit is obtained under its provisions. The CWA mandates permits for wastewater and stormwater discharges, requires states to establish site-specific water quality standards, and regulates other activities that affect water quality, such as dredging and the filling of wetlands. The CWA also funded the construction of sewage treatment plants and recognized the need for planning to address nonpoint sources of pollution. CWA Section 402 requires a permit for all point source (a discernible, confined, and discrete conveyance, such as a pipe, ditch, or channel) discharges of any pollutant into waters of the United States.

Safe Drinking Water Act

The federal Safe Drinking Water Act (SDWA) provides regulations on drinking water quality in Chino. The SDWA gives the USEPA the authority to set drinking water standards, such as the National Primary Drinking Water Regulations (NPDWRs or primary standards). The NPDWRs protect drinking water quality by limiting the levels of specific contaminants that are known to occur or have the potential to occur in water and can adversely affect public health. All public water systems that provide service to 25 or more individuals are required to satisfy these legally enforceable standards. Water purveyors must monitor for these contaminants on fixed schedules and report to the USEPA when a Maximum Contaminant Level (MCL) has been exceeded. MCL is the maximum permissible level of a contaminant in water that is delivered to any user of a public water system. Drinking water supplies are tested for a variety of contaminants, including organic and inorganic chemicals (e.g., minerals), substances that are known to cause cancer, radionuclides (e.g., uranium and radon), and microbial contaminants (e.g., coliform and *Escherichia coli*). Changes to the MCL list are typically made every three years, as the USEPA adds new contaminants or, based on new research or new case studies, revised MCLs for some contaminants are issued. The California Department of Health Services, Division of Drinking Water and Environmental Management, is responsible for implementation of the SDWA in California.

National Pollution Discharge Elimination System

Under the National Pollutant Discharge Elimination System (NPDES) program promulgated under CWA Section 402, all facilities that discharge pollutants from any point source into waters of the United States are required to obtain a NPDES permit. The term pollutant broadly includes any type of industrial, municipal, and agricultural waste discharged into water. Point sources include discharges from publicly owned treatment works (POTWs), discharges from industrial facilities, and discharges associated with urban runoff. While the NPDES program addresses certain specific types of agricultural activities, most agricultural facilities are nonpoint sources and are exempt from NPDES regulation. Pollutants come from direct and indirect sources. Direct sources discharge directly to receiving waters, whereas indirect sources discharge wastewater to POTWs, which in turn discharge to receiving waters. Under the national program, NPDES permits are issued only to direct point-source discharges. The National Pretreatment Program addresses industrial and commercial indirect dischargers. Municipal sources are POTWs that receive primarily domestic sewage from residential and commercial customers. Specific NPDES program areas applicable to municipal sources are the National Pretreatment Program, the Municipal Sewage Sludge Program, Combined Sewer Overflows, and the Municipal Storm Water Program. Nonmunicipal sources include industrial and commercial facilities. Specific NPDES program areas applicable to these



Source: City of Chino General Plan Draft Environmental Impact Report, January 2010.

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Figure 4.3.9-2

Prado Dam Inundation Area

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industrial/commercial sources are: Process Wastewater Discharges, Non-Process Wastewater Discharges, and the Industrial Storm Water Program. NPDES issues individual and general permits. Also, the USEPA has recently focused on integrating the NPDES program further into watershed planning and permitting (USEPA 2002).

NPDES has a variety of measures designed to minimize and reduce pollutant discharges. For example, pollutant discharges to a publicly owned conveyance or system of conveyances (including roadways, catch basins, curbs, gutters, ditches, man-made channels and storm drains, designed or used for collecting and conveying stormwater) are regulated by the USEPA's Storm Water Phase II Final Rule. The Phase II Final Rule requires an operator (such as a city) of a regulated small municipal separate storm sewer system (MS4) to develop, implement, and enforce a program (e.g., best management practices [BMPs], ordinances, or other regulatory mechanisms) to reduce pollutants in post-construction runoff to the City's storm drain system from new development and redevelopment projects that result in the land disturbance of greater than or equal to 1 acre. The MS4 permit in effect in the City of Chino is Order R8-2002-0012 issued by the Santa Ana Regional Water Quality Control Board in April 2002. The City of Chino Engineering Department is the local enforcing agency of the MS4 NPDES permit.

National Flood Insurance Program

The National Flood Insurance Act of 1968 and the Flood Disaster Protection Act of 1973 mandate the Federal Emergency Management Agency (FEMA) to evaluate flood hazards. FEMA provides Flood Insurance Rate Maps (FIRMs) for local and regional planners to promote sound land use and floodplain development, identifying potential flood areas based on the current conditions. To delineate a FIRM, FEMA conducts engineering studies called flood insurance studies. The most recent study and FIRM were completed and published for Chino on August 28, 2008. Using information gathered in these studies, FEMA engineers and cartographers delineate Special Flood Hazard Areas on FIRMs.

The Flood Disaster Protection Act requires owners of all structures in identified special flood hazard areas to purchase and maintain flood insurance as a condition of receiving federal or federally related financial assistance, such as mortgage loans from federally insured lending institutions. Community members in designated areas are able to participate in the National Flood Insurance Program afforded by FEMA. The program is required to offer federally subsidized flood insurance to property owners in those communities that adopt and enforce floodplain management ordinances that meet minimum criteria established by FEMA. The National Flood Insurance Reform Act of 1994 further strengthened the program by providing a grant program for state and community flood mitigation projects. The act also established the Community Rating System, a system for crediting communities that implement measures to protect the natural and beneficial functions of their floodplains, as well as managing erosion hazards.

The City of Chino, under the National Flood Insurance Program, has created standards and policies to ensure flood protection. These policies address development and redevelopment, compatibility of uses, required predevelopment drainage studies, compliance with discharge permits, enhancement of existing waterways, and cooperation with USACE and the San Bernardino County Flood Control District for updating, method consistency with the RWQCB, and proposed BMPs.

State

State Water Resources Control Board

The State Water Resources Control Board (SWRCB), a division of the California Environmental Protection Agency (Cal/EPA), regulates water resources including water quality within California. The SWRCB's mission is to preserve, enhance and restore the quality of California's water resources, and ensure their proper allocation and efficient use for the benefit of present and future generations. SWRCB's regulatory authority is based upon USEPA's delegated authority of the NPDES permitting process within the state, and California's Porter-Cologne Water Quality Act. The SWRCB is divided into nine Regional Water Quality Control Boards (RWQCB) each regulating watersheds within their region.

Porter-Cologne Water Quality Act

The Porter-Cologne Water Quality Control Act (Water Code Sections 13000 et seq.) is the basic water quality control law for California. Under this act, the SWRCB has ultimate control over state water rights and water quality policy. In California, the USEPA has delegated authority to issue NPDES permits to the SWRCB. The state is divided into nine regions related to water quality and quantity characteristics. The SWRCB, through its nine RWQCBs carries out the regulation, protection, and administration of water quality in each region. Each regional board is required to adopt a Water Quality Control Plan, or Basin Plan, that recognizes and reflects the regional differences in existing water quality, the beneficial uses of the region's ground and surface water, and local water quality conditions and problems. The City of Chino is in the Santa Ana River Basin, Region 8, in the Upper Santa Ana Watershed. The Water Quality Control Plan for this region was adopted in 1995. This Basin Plan gives direction on the beneficial uses of the state waters within Region 8, describes the water quality that must be maintained to support such uses, and provides programs, projects, and other actions necessary to achieve the established standards.

Storm Water Pollution Prevention Plans

Pursuant to the CWA, in 2001, the SWRCB issued a statewide general NPDES Permit for stormwater discharges from construction sites (NPDES No. CAS000002). Under this Statewide General Construction Activity permit, discharges of stormwater from construction sites with a disturbed area of 1 acre or more are required to either obtain individual NPDES permits for stormwater discharges or to be covered by the General Permit. Coverage by the General Permit is accomplished by completing and filing a Notice of Intent with the SWRCB and developing and implementing a Storm Water Pollution Prevention Plan (SWPPP). Each applicant under the General Construction Activity Permit must ensure that a SWPPP is prepared prior to grading and is implemented during construction. The SWPPP must list BMPs implemented on the construction site to protect stormwater runoff, and must contain a visual monitoring program, a chemical monitoring program for nonvisible pollutants to be implemented if there is a failure of BMPs, and a monitoring plan if the site discharges directly to a water body listed on the state's 303(d) list of impaired waters.

Regional

County of San Bernardino Stormwater Program

The San Bernardino County Stormwater Program has developed the Model Water Quality Management Plan guidance document to comply with the Santa Ana RWQCB's NPDES permit requirements. This guidance document requires that a project's post-development discharge not exceed predevelopment discharges for 1-, 5-, and 10-year storms; or that a project proponent carry out additional analysis and mitigation to ensure that a project not adversely impact downstream erosion, sedimentation, or stream habitat.

Santa Ana River Basin Water Quality Control Plan

The Water Quality Control Plan for the Santa Ana River Basin, updated in February 2008, establishes water quality standards for groundwater and surface water in the basin; that is, standards for both beneficial uses of specific waterbodies and the water quality levels that must be maintained to protect those uses. The Basin Plan includes an implementation plan describing actions by the Santa Ana RWQCB and others needed to achieve and maintain the water quality standards. The SARWQCB regulates waste discharges to minimize and control their effects on the quality of the region's groundwater and surface waters. The Basin Plan lists water quality problems in the region, along with causes, where they are known. Plans for improving water quality are included for water bodies with quality below the levels needed to enable all the beneficial uses of the water.

Chino Creek Integrated Plan

The Chino Creek Integrated Plan, updated in September 2006, was undertaken by the Inland Empire Utilities Agency (IEUA) under a grant from the SWRCB. The Plan identifies the highest priority improvement opportunities to preserve and enhance the Prado Basin. The Prado Basin is a unique asset to this region, which provides flood control, regional open space and endangered species recovery sites. It also hosts water quality enhancement programs and recreational and cultural facilities. The Plan identifies the key problem areas in the lower Chino Creek watershed and recommends projects and measures that will result in improved water quality, flood control, habitat restoration, recreation, water conservation and public education.

Optimum Basin Management Program

The Optimum Basin Management Program (OBMP), prepared for the Chino Basin Watermaster, describes the current physical state of the Chino Groundwater Basin, sets goals, and contains a management plan. The goals of the OBMP are to enhance the Basin's water supplies through the enhanced recharge of stormwater runoff, increase the recharge of recycled water, develop new sources of supplemental water, use recycled water for non-potable uses making more native groundwater available for higher-priority beneficial uses, treat and use contaminated groundwater, and to reduce groundwater outflow. Other goals are to protect and enhance water quality, and to enhance management of the Basin.

Local

Chino Master Plan of Drainage (Master Plan)

The Chino Master Plan of Drainage was created in 1993, based on existing drainage systems in Chino. The Master Plan recommends the most viable and cost-effective storm drain facilities to relieve the deficiencies that existed at the time and meet future needs based on buildout conditions. The Master Plan study area covered all drainage to the west of Euclid Avenue, to the south of the West State Street Storm Drain watershed, to the east of San Antonio Channel and Chino Creek (Corona Expressway), and tributaries to the City's storm drainage system. Subsequent updates addressing Chino's newly annexed areas are listed below:

- Storm Drain Master Plan—Subarea 1 Agricultural Preserve (July 1998)
- Storm Drain Master Plan—Subarea 2 (Preserve Area) (November 2003, amended June 2004)

City of Chino Municipal Code

Chino Municipal Code Chapter 8.60 includes the areas of special flood hazard identified by the Federal Insurance Administration. Section 8.60.170 regulates development in the floodplain by the creation of standards of construction. Section 8.60.270 sets out conditions for variances.

City of Chino Stormwater Ordinance

On February 1, 1994, the City of Chino adopted Ordinance 94-01 (Protection and Regulation of the Stormwater Drainage System). The purpose of this ordinance is to ensure the health, safety, and general welfare of City residents by protecting and enhancing the water quality of local waterbodies, groundwater, and wetlands. One of the primary goals of this ordinance is to reduce pollutants in all stormwater discharges to the maximum extent practicable. City staff periodically updates the ordinance for the purpose of maintaining compliance with new regulations including NPDES permit requirements.

City of Chino Standard Conditions of Approval

The City of Chino provides Standard Conditions of Approval for new development. The standards that apply to drainage and water quality include the following:

- Prepare and submit a drainage study, including supporting hydraulic and hydrological data for approval. The study must identify the project's impact and all downstream drainage-mitigating measures, including, but not limited to, detention facilities.
- Prepare and submit a grading plan showing drainage routes and other pertinent information.
- Prepare and submit a Water Quality Management Plan (WQMP) to mitigate impacts to stormwater quality and quantity through the implementation of post-construction Best Management Practices (BMPs).

Chino General Plan

The Chino General Plan policies that are applicable to hydrology and water quality[12] are as follows:

Policy OSC 1-1 **P2.** The City shall protect and enhance riparian habitats along Chino and Cucamonga/Mill Creeks, and the Cypress and Magnolia Channels, as well as their relationship to adjacent water bodies, such as the Santa Ana River.

Policy SAF-2.1 **P1.** The City shall not permit new development within the 100-year flood zone unless it can be shown that the development will not:

1. Create danger to life and property due to increased flood heights or velocities caused by excavation, fill, roads and intended use.
2. Create difficult emergency vehicle access in times of flood.
3. Create a safety hazard due to the unexpected heights velocity, duration, rate of rise and sediment transport of the flood waters at the site.
4. Create excessive costs in providing governmental services during and after flood conditions, including maintenance and repair of public facilities.
5. Interfere with the existing waterflow capacity of the floodway.
6. Substantially increase erosion and/or sedimentation.
7. Contribute to the deterioration of a watercourse or the quality of water in any body of water.
8. Require storage of material, or any substantial grading or placement of fill.
9. Change the water storage/volume capacity of the flood basin.

Policy SAF-2.1 **P2.** The City shall prevent the construction of flood barriers within the 100-year flood zone which will divert flood water or increase flooding in other areas.

Policy SAF-2.1 **P3.** The City shall refer any new development proposed within the flood plain to the United States Army Corp of Engineers for approval. Such approval will require, at a minimum, volume offsets in order to maintain the existing storage capacity of the basin.

Policy SAF-2.1 **P4.** The City shall not permit the construction of any habitable building with a finished floor height below 567 feet in elevation within or adjacent to the dam inundation area.

Policy SAF-2.2 **P1.** The City shall continue to allow only those uses below the 566-foot flood inundation line that are approved by the Army Corps of Engineers.

Policy SAF-4.1 **P2.** When reviewing new development applications, the City shall require the necessary level of environmental investigation to ensure that soils, groundwater and buildings affected by hazardous materials would not affect the environment or health and safety of future property owners or users.

Policy PFS-1.1 **P6.** The City shall require new development to incorporate adequate emergency water flow, fire resistant design and materials, and evacuation routes.

[12] These policies are not a complete listing of all policies contained in the General Plan; those policies that would be most applicable to the proposed project are included here.

Policy PFS-7.1 **P1.** The City shall continue to acquire additional supplies of water, including local groundwater and recycling, to meet future demands.

Policy PFS-7.1 **P2.** The City shall establish water demand reduction standards for new development and redevelopment to reduce per capita and total demand for water.

Policy PFS-7.1 **P3.** The City shall review proposed irrigation systems to ensure they provide required water efficiency.

Policy PFS-7.1 **P4.** The City shall review proposed new development and significant redevelopment to determine whether all feasible water conservation measures are being implemented. Possible measures include drought tolerant landscaping, efficient irrigation systems, and rain barrels. In conducting this review, the City shall consult State-wide resources governing water-efficient landscaping.

Policy PFS-7.1 **P5.** The City shall implement cost-effective water conservation programs that improve water-use efficiency, reduce water demand, and preserve the City's supplies.

Policy PFS-7.1 **P6.** The City shall coordinate with neighboring water agencies to implement regional water conservation programs as part of its water resource management strategy.

Policy PFS-7.2 **P1.** The City shall maintain water storage, conveyance, and treatment infrastructure in good working condition in order to supply domestic water to all users with adequate quantities, flows, and pressures. Additionally, the City shall continue to work with the Inland Empire Utilities Agency to provide facilities for recycled water distribution.

Policy PFS-7.3 **P1.** Structures with plumbing that are located within the City limits and do not have their own privately owned well shall connect to the City water supply system.

Policy PFS-7.3 **P2.** The City shall require new developments to dedicate land for water infrastructure such as treatment facilities, tanks, pump stations and wells as needed to support project development.

Policy PFS-7.3 **P3.** All new water facilities shall be designed to accommodate expected capacity for buildout of areas served by these facilities.

Policy PFS-7.3 **P4.** The City shall consider the availability of sufficient, reliable water when reviewing new development.

Policy PFS-7.4 **P1.** The City's water supply portfolio and system facilities shall be managed to provide for adequate redundancy to address emergency conditions.

Policy PFS-7.4 **P2.** Future water systems and facilities shall be designed to minimize the likelihood of damage from vandalism or terrorist activity.

Policy PFS-7.5 **P1.** The City shall review new development projects to determine and which are appropriate for recycled water piping systems ("purple pipe"). The City shall require these projects to incorporate such systems to facilitate the distribution and use of recycled water. In most cases, appropriate projects will be public facilities, industrial users, agricultural users, street medians, parkways, and parks. However, the City may identify large water consumption residential users as having potential

for recycled water in cases where appropriate infrastructure exists and the residential users have extensive landscaping needs.

Policy PFS-7.5 **P2.** To the extent feasible, the City and development projects with purple pipe in place shall use recycled water for all nonpotable uses, such as landscape irrigation, dust control, industrial uses, cooling water, and irrigation of agricultural lands. This can include indoor as well as outdoor uses in an industrial setting.

Policy PFS-8.1 **P1.** Where appropriate, the City shall use the project approval process to limit impermeable paving that negatively impacts surface water runoff.

Policy PFS-8.1 **P2.** Surface water resources shall be protected from contamination from runoff containing pollutants and sediment, through implementation of Best Management Practices.

Policy PFS-8.1 **P3.** The City shall work with other State and local agencies to identify and eliminate or minimize all sources of existing and potential point and non-point sources of pollution to ground and surface waters, including leaking fuel tanks, discharges from storm drains, auto dismantling, dump sites, sanitary waste systems, parking lots, roadways, and mining operations.

Policy PFS-9.1 **P1.** The City shall maintain wastewater collection and conveyance infrastructure in good working condition in order to supply municipal sewer service to the City's residents and businesses.

Policy PFS-9.1 **P2.** All new development located within the City limits shall connect to the public wastewater collection system.

Policy PFS-9.1 **P3.** Subsequent to the Local Agency Formation Commission approval process, the City shall allow existing and new development in its Sphere of Influence to apply for and receive sanitary service from the City, as long as the development is consistent with the Land Use Element.

Policy PFS-9.2 **P1.** The City shall ensure that all wastewater collection and conveyance facilities are constructed to serve the ultimate buildout of all developments. This shall be done in coordination with the Inland Empire Utilities Agency, which is responsible for providing sufficient treatment and trunk lines.

Policy PFS-9.2 **P2.** The City shall construct new wastewater conveyance facilities as needed. Individual development projects shall be responsible for construction of all collection lines.

Policy PFS-9.2 **P3.** The City shall condition approval of new development on the availability of sufficient capacity in the wastewater collection and treatment system to serve the project.

Policy PFS-9.3 **P2.** The City shall continue to implement its Improvement Program for recycled water distribution system.

Policy PFS-10.1 **P1.** The City shall maintain stormwater runoff infrastructure in good condition through regular inspections, maintenance, and repair.

Policy PFS-10.1 **P2.** The City shall review stormwater runoff infrastructure to ensure that it minimizes local flooding by attaining capacity that conforms to the Master Plans of Drainage.

Policy PFS-10.1 **P3.** The City shall require that local stormwater runoff drainage improvements be built to carry design-year runoff flows resulting from buildout of the land uses shown in the Land Use Element.

Policy PFS-10.1 **P4.** The City shall require stormwater runoff drainage facilities to be consistent with State and federal requirements, including National Pollutant Discharge Elimination System (NPDES) requirements.

Policy PFS-10.1 **P5.** The City shall work with appropriate agencies to locate available facilities and to provide the retaining facilities necessary to recharge the groundwater basin using the City's stormwater.

Policy PFS-10.1 **P6.** The City shall continue to implement a local stormwater program that achieves compliance with the provisions of the City's NPDES permit for area-wide urban stormwater runoff. The City's stormwater program activities shall also be coordinated with neighboring agencies as needed.

Policy PFS-10.1 **P7.** The City shall continue to implement the City's Sewer System Management Plan to prevent sanitary sewer overflows from reaching local water bodies.

Policy PFS-11.1 **P1.** Best Management Practices (BMPs) shall be used to reduce stormwater runoff where feasible.

Policy PFS-11.1 **P2.** The City shall require new development projects to be designed to minimize storm runoff to reduce the requirements for stormwater runoff drainage infrastructure and to improve runoff quality.

Policy PFS-11.1 **P3.** The City shall regulate stormwater runoff from urban uses to protect the quality of surface and ground water and other resources from detrimental conditions.

Policy PFS-11.1 **P4.** The City shall require new development projects to demonstrate that necessary stormwater runoff infrastructure is planned and is in compliance with environmental regulations.

Project Impact Evaluation

Thresholds of Significance

The following thresholds of significance are based on the 2012 CEQA Guidelines Appendix G. For purposes of this EIR, implementation of the San Bernardino County Regional GHG Reduction Plan might have a significant adverse impact on hydrology/water quality if it would do any of the following:

- Violate any water quality standards or waste discharge requirements
- Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level that would not support existing land uses or planned uses for which permits have been granted)
- Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner that would result in substantial erosion or siltation on or off site

- Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner that would result in flooding on or off site
- Create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff
- Otherwise substantially degrade water quality
- Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map
- Place within a 100-year flood hazard area structures that would impede or redirect flood flows
- Expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam
- Inundation by seiche, tsunami, or mudflow

Analytic Method

The following analysis considers whether or not implementation of the Regional Reduction Plan within the City would impact hydrology, water quality, create or increase the potential for flood hazards or inhibit the ability to respond to flood hazards.

Effects Not Found to Be Significant

Threshold	Would the project violate any water quality standards or waste discharge requirements?

Water quality degradation in the City from erosion impacts would be specific to future project sites that could be developed and/or retrofitted as a result of implementing reduction measures in the Regional Reduction Plan, and depend largely on the areas affected and the length of time soils are subject to erosion. Although implementation of the Regional Reduction Plan may result in runoff during construction of individual energy-generating facilities, methane capture systems, pedestrian, bicycle, or transit infrastructure that could adversely affect water quality beyond standards specified by the SWRCB, all reduction measure development requiring ground disturbance would be subject to regional and local regulations including the need for a Stormwater Pollution Prevention Plan (SWPPP) under NPDES No. CAS000002. In addition the City requires the obtainment of a grading permit for all developments that would require grading. In turn, all work requiring a grading permit would be required to have an approved Erosion Control Plan. Compliance with SWRCB's General Construction Activity Stormwater Permit regulations requiring a SWPPP, and the grading permit required by the City would reduce the risk of water degradation within the City from soil erosion related to construction activities associated with the Regional Reduction Plan to less than significant. Consequently, potential impacts as a result of implementation of the Regional Reduction Plan would be ***less than significant***. No mitigation is required.

Threshold	Would the project substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level that would not support existing land uses or planned uses for which permits have been granted)?

Implementation of the Regional Reduction Plan would not result in a substantial (if any) increase in impervious surfaces in the City. The Proposed Project would facilitate development in transit-oriented areas and the bicycle and pedestrian infrastructure as provided for in the Chino General Plan, which are already developed with impervious surfaces. The Proposed Project would not to substantially increase the impermeable surface area such that groundwater recharge would be substantially affected. Energy retrofits, solar arrays, or wind turbines would not increase impermeable surface area in the City. Therefore, the proposed project would not substantially deplete groundwater supplies or interfere substantially with groundwater recharge. The impact would be ***less than significant***. No mitigation is required.

Threshold	Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner that would result in substantial erosion or siltation on or off site?

Energy retrofits and passive energy-producing components such as photovoltaic arrays would not alter existing drainage patterns in the City, as they would consist of structural alterations, not an increase in overall building footprint. Some renewable energy-generating facilities that could be constructed on vacant land, hillsides, or open space areas could alter existing drainage patterns; however, as noted above, all construction would be subject to regulations related to water quality, erosion, and stormwater runoff. Individual projects associated with implementation of the Regional Reduction Plan would be subject to review by the City prior to issuance of a grading permit, which process requires preparation of a drainage study and SWPPP. Consequently, any potential impacts associated with emissions during implementation of the Regional Reduction Plan would be reduced to ***less than significant***. No mitigation is required.

Threshold	Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner that would result in flooding on or off site?

Energy facilities under the Regional Reduction Plan could be constructed in a 100-year flood plain. Major historical floods have occurred in the City, where storm sheet flows resulting from overflows of the local channels and drains have produced a variety of damage. The 100-year flood hazard areas within the City are located in the southern portion of the City south of Pine Avenue. All new development, including facilities constructed pursuant to implementation of the Regional Reduction Plan, would be subject to the policies of the Chino General Plan. For example, policies under Goal SAF-2, Objective SAF-2.1 prohibit development in the 100-year flood zone if it would result in danger to life and property, create safety hazards, increase erosion or sedimentation, deteriorate water quality, or create excessive costs in providing emergency services during and after flooding. Policy P2 states that the City of Chino shall prevent construction of flood barriers within the 100-year flood zone which would divert flood water or

increase flooding in other areas. In addition, Objective SAF-2.2, Policy P1, states that the City would only allow uses below the 566-foot flood inundation line if it is approved by USACE. As such, the development of energy facilities within the City's 100-year flood areas would not result in the redirection of flood flows in a manner that would subsequently lead to the loss of adequate flood conveyance in the City. Furthermore, any new development or work within the City that involves the San Bernardino County Flood Control and Water Conservation District's right of way, easements, or facilities would require the obtainment of an encroachment permit from the District. Compliance with the Chino General Plan policies is assured through City review of all proposed development. Therefore, the impact would be ***less than significant***. No mitigation is required.

Threshold	Would the project create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?

The development of any new facilities during implementation of the Regional Reduction Plan within a road right-of-way or other areas that may impact storm drains must be coordinated with the City prior to the beginning of construction. Compliance of City provisions including the City of Chino Stormwater Ordinance would ensure that people and property are protected from flooding through responsible and efficient stormwater management. Compliance with NPDES permit requirements would ensure that the proposed project would not provide substantial additional sources of polluted runoff. The impact would be ***less than significant***. No mitigation is required.

Threshold	Would the project otherwise substantially degrade water quality?

The Regional Reduction Plan would not otherwise substantially degrade water quality. The impact would be ***less than significant***. No mitigation is required.

Threshold	Would the project place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?

The Regional Reduction Plan does not include a housing component. There would be ***no impact***. Further analysis is not required.

Threshold	Would the project place within a 100-year flood hazard area structures that would impede or redirect flood flows?

Renewable energy generation facilities could be constructed in a 100-year flood hazard area as a result of Regional Reduction Plan implementation. All new development, including facilities constructed pursuant to implementation of the Regional Reduction Plan, would be subject to the policies of the Chino General Plan. As such, the development of energy facilities within the City's 100-year flood areas would not impede or result in the redirection of flood flows in the City. Furthermore, any new development or work within the City that involves the San Bernardino County Flood Control and Water Conservation District's right of way, easements, or facilities would require the obtainment of an encroachment permit from the District. The Chino General Plan Policies SAF-2.1 P1 through P4 reduces the risk from flooding throughout the City. Compliance with the Municipal Code and Chino General Plan policies is

assured through City review of all proposed development. Therefore, the impact would be ***less than significant***. No mitigation is required.

Threshold	Would the project expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam?

Transit, pedestrian and bicycle infrastructure, energy retrofits, and passive energy solar arrays built during implementation of the Regional Reduction Plan may have a risk of flooding from dam failure. If wind farms or other energy-producing facilities are built in open space areas, they could be subject to increased risk from dam inundation depending on their location. However, all new development would be subject to the provisions of the City's Municipal Code, designed to minimize public and private losses due to flood conditions by ensuring proper design of structures to prevent against flood damages. The Chino General Plan Policies SAF-2.1 P1 through P4 restricts development in areas subject to flooding, as noted, above. These policies identified in the Chino General Plan would minimize the effects of prospective growth from flooding hazards. Therefore, the impact would be ***less than significant***. No mitigation is required.

Threshold	Would the project inundation by seiche, tsunami, or mudflow?

The City of Chino is at low risk from damage resulting from seiches or waves generated in bodies of water. Chino is also not at risk from tsunami due to its inland location. Finally, the City is not at risk of mudflows due to its relatively flat topography. For the same reason, there is no risk from mudflow from the hills in Chino. Facilities and infrastructure built as a result of the Regional Reduction Plan implementation within the City are reviewed for adherence to the Chino General Plan policies, the City's Flood Damage Prevention Program, and any San Bernardino County Flood Control District encroachment permits. Therefore, the impact would be ***less than significant***. No mitigation is required.

Cumulative Impacts

Because the Regional Reduction Plan does not significantly impact hydrology, water quality, or create flood hazards at a project level, implementation of the Regional Reduction Plan will not create impacts to hydrology, water quality or flood hazards that are cumulatively considerable. Therefore, ***cumulative impacts are less than significant***.

References

Chino, City of. 2010a. *City of Chino General Plan*, July.

———. 2010b. *City of Chino General Plan Draft Environmental Impact Report*, January.

———. n.d. *City of Chino Municipal Code*.

San Bernardino Associated Governments (SANBAG). 2012. *San Bernardino County Regional Greenhouse Gas Reduction Plan*. Draft. Prepared by ICF International, December.

4.3.10 Land Use/Planning

This section of the EIR analyzes the potential environmental effects on land use/planning in the City of Chino from implementation of the Regional Reduction Plan. Data for this section were taken from the Chino General Plan (July 2010a) and associated environmental impact report (January 2010b). Full reference-list entries for all cited materials are provided at the end of this section.

No comment letters addressing land use/planning were received in response to the notice of preparation (NOP) circulated for the Regional Reduction Plan.

Environmental Setting

Existing Land Use

The City of Chino has a variety of existing uses as shown in Figure 4.3.10-1 (Existing Land Use), including residential, industrial, commercial, public, and open-space land. The major existing land uses are discussed below.

Commercial and Office

Commercial and office land uses account for over 3 percent of Chino's area. Commercial developments are most concentrated along Central Avenue and Riverside Drive, and in the Chino Spectrum Town Center. Commercial land uses serve Chino's residential neighborhoods, as well as residents from the surrounding region. Limited office uses are found near commercial uses.

Airport Related

The Chino Airport occupies 6 percent of Chino's land area. The airport allows some agricultural operations on the property as well.

Industrial

Thirteen percent of Chino's land is currently developed with industrial uses. Industry in Chino is well-established and is an important part of the economy. Industrial uses predominantly include light industrial uses such as business parks and research facilities, though several heavy industrial operations currently exist in central Chino as well, including manufacturing and processing plants.

Agricultural

In addition to the existing agricultural operations within the California Institute for Men (CIM) and the Chino Airport, 14 percent of the City's area is used for agricultural operations. Historically, agriculture has been an important land use in Chino, with a concentration of dairy farms. However, as the City has developed in the past 20 years, agricultural lands have been converted to urban uses. This trend is likely to continue into the future.

Parks, Open Space, and Schools

Chino's extensive park and open space network accounts for 8 percent of the existing land area. Much of this land is within the large Prado Regional Park in the southwestern corner of the City. Smaller neighborhood parks are scattered throughout the City as well. Schools serving City neighborhoods are similarly found throughout the residential area.

Public Facilities

Three percent of Chino's land area is used for public and quasi-public uses. This land is scattered throughout the City and is primarily City-owned property used for public facilities such as police and fire stations and City Hall, as well as utilities infrastructure such as wastewater treatment.

Detention Centers

The CIM and the other two prisons represent 14 percent of Chino's land area, and are used for the operations of the State's prison facility. Some land in the CIM is currently used for agriculture operations within the prison.

Residential

Twenty-five percent of Chino's land area is currently used for residential purposes. Most of this residential development is located north of Schaefer Avenue, though some is located in The Preserve, College Park and in East Chino as well.

Regulatory Framework

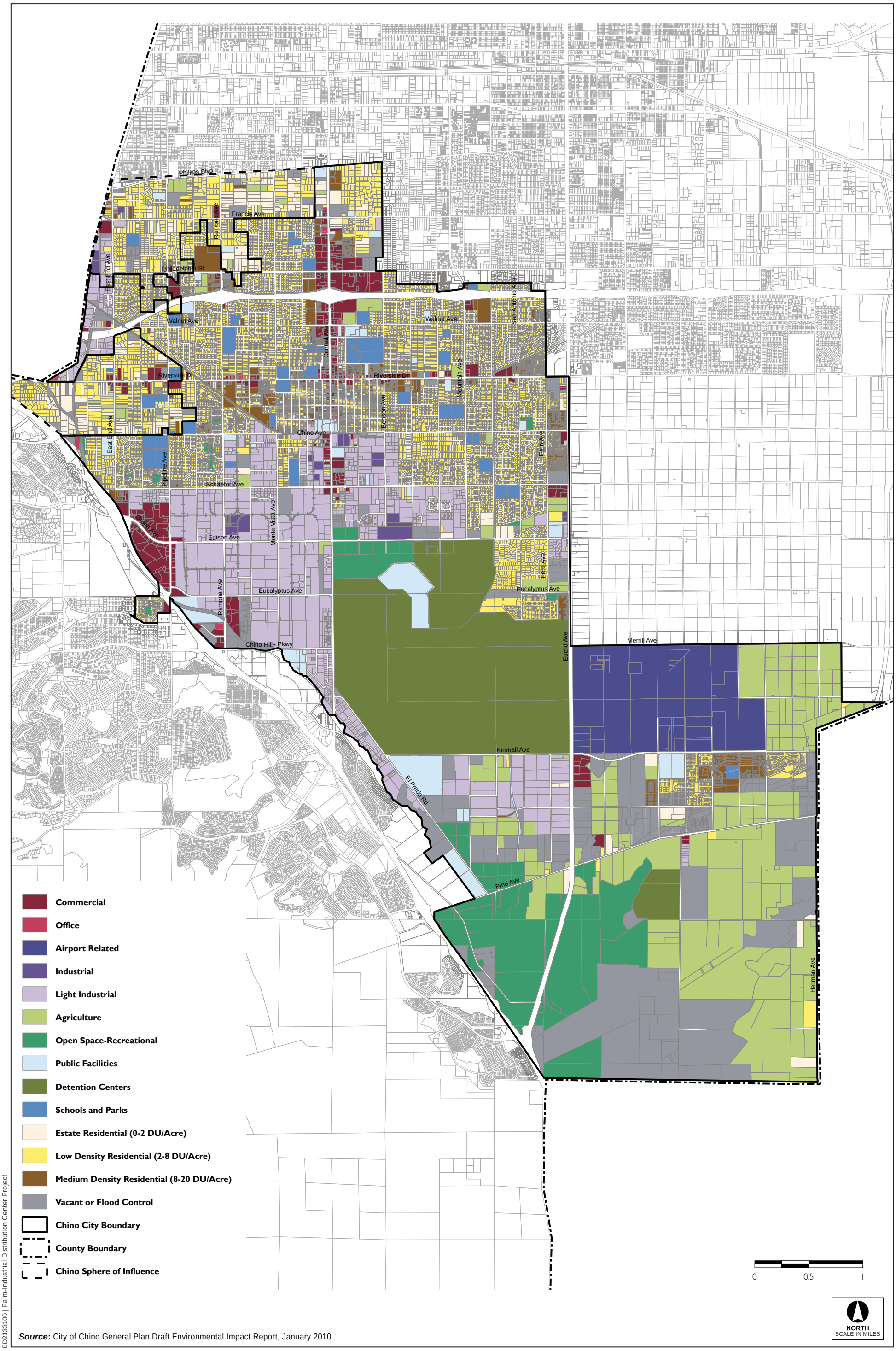
Federal

There are no federal regulations pertaining to land use/planning.

State

California Air Resources Board

The California Air Resources Board (ARB), a part of the California EPA (Cal/EPA) is responsible for the coordination and administration of both federal and state air pollution control programs within California. In this capacity, California ARB conducts research, sets state ambient air quality standards (California Ambient Air Quality Standards), compiles emission inventories, develops suggested control measures, and provides oversight of local programs. California ARB establishes emissions standards for motor vehicles sold in California, consumer products (such as hairspray, aerosol paints, and barbecue lighter fluid), and various types of commercial equipment. It also sets fuel specifications to further reduce vehicular emissions. California ARB has primary responsibility for the development of California's State Implementation Plan (SIP), for which it works closely with the federal government and the local air districts.



***Source*:** City of Chino General Plan Draft Environmental Impact Report, January 2010.

0D2133100 | Palm-Industrial Distribution Center Project

Figure 4.3.10-1
Existing Land Use

ATKINS

Executive Order S-3-05

California Governor Arnold Schwarzenegger announced on June 1, 2005, through Executive Order S-3-05, 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
- By 2050, California shall reduce GHG emissions to 80 percent below 1990 levels

The first California Climate Action Team Report to the Governor in 2006 contained recommendations and strategies to help meet the targets in Executive Order S-3-05. In April 2010, the Draft California Action Team (CAT) Biennial Report expanded on the policy oriented 2006 assessment. The new information detailed in the CAT Assessment Report includes development of revised climate and sea-level projections using new information and tools that have become available in the last two years; and an evaluation of climate change within the context of broader social changes, such as land-use changes and demographic shifts (Cal/EPA 2006). The action items in the report focus on the preparation of the Climate Change Adaptation Strategy, required by Executive Order S-13-08, described below.

Assembly Bill 32, the California Global Warming Solutions Act of 2006

In 2006, the California State Legislature adopted AB 32, the California Global Warming Solutions Act of 2006. AB 32 focuses on reducing GHG in California. GHGs as defined under AB 32 include carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride. AB 32 required California ARB to adopt rules and regulations that would achieve greenhouse gas emissions equivalent to 1990 statewide levels by 2020. On or before June 30, 2007, California ARB was required to publish a list of discrete early action GHG emission reduction measures that would be implemented by 2010. The law further required that such measures achieve the maximum technologically feasible and cost effective reductions in GHGs from sources or categories of sources to achieve the statewide greenhouse gas emissions limit for 2020.

California ARB published its final report for Proposed Early Actions to Mitigate Climate Change in California in October 2007. This report described recommendations for discrete early action measures to reduce GHG emissions. The measures included are part of California's strategy for achieving GHG reductions under AB 32. Three new regulations are proposed to meet the definition of "discrete early action greenhouse gas reduction measures," which include the following: a low carbon fuel standard; reduction of HFC-134a emissions from non-professional servicing of motor vehicle air conditioning systems; and improved landfill methane capture (California ARB 2007b). California ARB estimates that by 2020, the reductions from those three measures would be approximately 13 million to 26 million metric tons carbon dioxide equivalent (MMT CO_2e).

Under AB 32, California ARB has the primary responsibility for reducing GHG emissions. California ARB has published a staff report titled California 1990 GHG Emissions Level and 2020 Emissions Limit (California ARB 2007a) that determined the statewide levels of GHG emissions in 1990 to be 427 MMT CO_2e. Additionally, in December 2008, California ARB adopted the Climate Change Scoping Plan, which outlines the state's strategy to achieve the 2020 GHG limit. This Scoping Plan proposes a comprehensive set of actions designed to reduce overall greenhouse gas emissions in California, improve the

environment, reduce dependence on oil, diversify energy sources, save energy, create new jobs, and enhance public health. The plan emphasizes a cap-and-trade program, but also includes the discrete early actions.

Senate Bill 97 (SB 97)

SB 97, enacted in 2007, amends the CEQA statute to clearly establish that GHG emissions and the effects of GHG emissions are appropriate subjects for CEQA analysis. It directed the California Office of Planning and Research (OPR) to develop draft CEQA Guidelines "for the mitigation of GHG emissions or the effects of GHG emissions" and directed the Resources Agency to certify and adopt the CEQA Guidelines.

On April 13, 2009, OPR submitted the proposed amendments to the Secretary for Natural Resources. The Natural Resources Agency conducted formal rulemaking in 2009, certified, and adopted the amendments in December 2009. The California Office of Administrative Law codified into law the amendments in March 2010. The amendments became effective in June 2010 and provide regulatory guidance with respect to the analysis and mitigation of the potential effects of GHG emissions.

CEQA Guidelines Section 15183.5 (Tiering and Streamlining the Analysis of GHG Emissions) was added as part of the CEQA Guideline amendments and describes the criteria needed in a Climate Action Plan that would allow for the tiering and streamlining of CEQA analysis for subsequent development projects. The following quote is from the CEQA Guideline amendments:

> Section 15183.5. Tiering and Streamlining the Analysis of Greenhouse Gas Emissions.
>
> (a) Lead agencies may analyze and mitigate the significant effects of greenhouse gas emissions at a programmatic level, such as in a general plan, a long range development plan, or a separate plan to reduce greenhouse gas emissions. Later project-specific environmental documents may tier from and/or incorporate by reference that existing programmatic review. Project-specific environmental documents may rely on an EIR containing a programmatic analysis of greenhouse gas emissions as provided in section 15152 (tiering), 15167 (staged EIRs) 15168 (program EIRs), 15175–15179.5 (Master EIRs), 15182 (EIRs Prepared for Specific Plans), and 15183 (EIRs Prepared for General Plans, Community Plans, or Zoning).
>
> (b) Plans for the Reduction of Greenhouse Gas Emissions. Public agencies may choose to analyze and mitigate significant greenhouse gas emissions in a plan for the reduction of greenhouse gas emissions or similar document. A plan to reduce greenhouse gas emissions may be used in a cumulative impacts analysis as set forth below. Pursuant to sections 15064(h)(3) and 15130(d), a lead agency may determine that a project's incremental contribution to a cumulative effect is not cumulatively considerable if the project complies with the requirements in a previously adopted plan or mitigation program under specified circumstances.
>
> (1) Plan Elements. A plan for the reduction of greenhouse gas emissions should:
>
> (A) Quantify greenhouse gas emissions, both existing and projected over a specified time period, resulting from activities within a defined geographic area;
>
> (B) Establish a level, based on substantial evidence, below which the contribution to greenhouse gas emissions from activities covered by the plan would not be cumulatively considerable;
>
> (C) Identify and analyze the greenhouse gas emissions resulting from specific actions or categories of actions anticipated within the geographic area;

(D) 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;

(E) 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;

(F) Be adopted in a public process following environmental review.

(2) Use with Later Activities. A plan for the reduction of greenhouse gas emissions, once adopted following certification of an EIR or adoption of an environmental document, may be used in the cumulative impacts analysis of later projects. An environmental document that relies on a greenhouse gas reduction plan for a cumulative impacts analysis must identify those requirements specified in the plan that apply to the project, and, if those requirements are not otherwise binding and enforceable, incorporate those requirements as mitigation measures applicable to the project. If there is substantial evidence that the effects of a particular project may be cumulatively considerable notwithstanding the project's compliance with the specified requirements in the plan for the reduction of greenhouse gas emissions, an EIR must be prepared for the project.

One of the goals of the C-CAP is to allow programmatic level review and mitigation of GHG emissions that allows streamlining of CEQA review for subsequent development projects. To accomplish this, the C-CAP framework is designed to fulfill the requirements identified in CEQA Guidelines Section 15183.5, above.

Executive Order S-13-08

On November 14, 2008, Governor Schwarzenegger issued Executive Order S-13-08, the Climate Adaptation and Sea Level Rise Planning Directive, which provides clear direction for how the State should plan for future climate impacts. Executive Order S-13-08 calls for the implementation of four key actions to reduce the vulnerability of California to climate change:

- Initiate California's first statewide Climate Change Adaptation Strategy (CAS) that will assess the State's expected climate change impacts, identify where California is most vulnerable, and recommend climate adaptation policies
- Request that the National Academy of Sciences establish an expert panel to report on sea level rise impacts in California in order to inform State planning and development efforts
- Issue interim guidance to State agencies for how to plan for sea level rise in designated coastal and floodplain areas for new and existing projects
- Initiate studies on critical infrastructure and land-use policies vulnerable to sea level rise

The 2009 CAS report summarizes the best known science on climate change impacts in the state to assess vulnerability, and outlines possible solutions that can be implemented within and across state agencies to promote resiliency. This is the first step in an ongoing, evolving process to reduce California's vulnerability to climate impacts (CNRA 2009).

California Code of Regulations (CCR) Title 24, Part 6

CCR Title 24, Part 6 (California's Energy Efficiency Standards for Residential and Nonresidential Buildings) (Title 24) were first established in 1978 in response to a legislative mandate to reduce California's energy consumption. The standards are updated periodically to allow consideration and

possible incorporation of new energy efficiency technologies and methods. Although it was not originally intended to reduce GHG emissions, electricity production by fossil fuels results in GHG emissions and energy efficient buildings require less electricity. Therefore, increased energy efficiency results in decreased GHG emissions.

The Energy Commission adopted 2008 Standards on April 23, 2008, and the Building Standards Commission approved them for publication on September 11, 2008. These updates became effective on August 1, 2009. The Energy Commission adopted the 2008 changes to the Building Energy Efficiency Standards for several reasons:

- To provide California with an adequate, reasonably priced, and environmentally sound supply of energy
- To respond to AB 32, the Global Warming Solutions Act of 2006, which mandates that California must reduce its GHG emissions to 1990 levels by 2020
- To pursue California energy policy, which states that energy efficiency is the resource of first choice for meeting California's energy needs
- To act on the findings of California's Integrated Energy Policy Report (IEPR) that concludes that the Standards are the most cost effective means to achieve energy efficiency, expects the Building Energy Efficiency Standards to continue to be upgraded over time to reduce electricity and peak demand, and recognizes the role of the Standards in reducing energy related to meeting California's water needs and in reducing GHG emissions
- To meet the West Coast Governors' Global Warming Initiative commitment to include aggressive energy efficiency measures into updates of state building codes
- To meet the Executive Order in the Green Building Initiative to improve the energy efficiency of nonresidential buildings through aggressive standards

Senate Bill 375

Senate Bill 375 (SB 375), which establishes mechanisms for the development of regional targets for reducing passenger vehicle greenhouse gas emissions, was adopted by the State on September 30, 2008. On September 23, 2010, California ARB adopted the vehicular greenhouse gas emissions reduction targets that had been developed in consultation with the metropolitan planning organizations (MPOs); the targets require a 7 to 8 percent reduction by 2020 and between 13 to 16 percent reduction by 2035 for each MPO. SB 375 recognizes the importance of achieving significant greenhouse gas reductions by working with cities and counties to change land use patterns and improve transportation alternatives. Through the SB 375 process, MPOs will work with local jurisdictions in the development of sustainable communities strategies (SCS) designed to integrate development patterns and the transportation network in a way that reduces greenhouse gas emissions while meeting housing needs and other regional planning objectives. MPOs will prepare their first SCS according to their respective regional transportation plan (RTP) update schedule.

Regional

Southern California Association of Governments (SCAG)

SCAG is the designated Metropolitan Planning Organization for six Southern California counties (Los Angeles, Ventura, Orange, San Bernardino, Riverside, and Imperial), and is federally mandated to develop plans for transportation, growth management, hazardous waste management, and air quality. The SCAG regional plans cover San Bernardino County, which includes the City, and five other counties within Southern California.

Regional Comprehensive Plan

The Regional Comprehensive Plan (RCP) is a problem-solving guidance document that responds to SCAG's Regional Council directive in the 2002 Strategic Plan to develop a holistic, strategic plan for defining and solving the region's interrelated housing, traffic, water, air quality, and other regional challenges. The RCP is a voluntary framework that links broad principles to an action plan that moves the region towards balanced goals. The RCP's guiding principles include:

- Improve mobility for all residents. Improve the efficiency of the transportation system by strategically adding new travel choices to enhance system connectivity in concert with land use decisions and environmental objectives.
- Foster livability in all communities.
- Foster safe, healthy, walkable communities with diverse services, strong civic participation, affordable housing, and equal distribution of environmental benefits.
- Enable prosperity for all people. Promote economic vitality and new economies by providing housing, education, and job training opportunities for all people.
- Promote sustainability for future generations.
- Promote a region where quality of life and economic prosperity for future generations are supported by the sustainable use of natural resources.

Further, the RCP seeks to successfully integrate land and transportation planning and achieve land use and housing sustainability by implementing Compass Blueprint and 2 percent Strategy:

- Focusing growth in existing and emerging centers and along major transportation corridors
- Creating significant areas of mixed-use development and walkable, "people-scaled" communities
- Providing new housing opportunities, with building types and locations that respond to the region's changing demographics
- Targeting growth in housing, employment, and commercial development within walking distance of existing and planned transit stations
- Injecting new life into under-used areas by creating vibrant new business districts, redeveloping old buildings and building new businesses and housing on vacant lots
- Preserving existing, stable, single-family neighborhoods

- Protecting important open space, environmentally sensitive areas and agricultural lands from development
- Reducing emissions of criteria pollutants to attain federal air quality standards by prescribed dates and state ambient air quality standards as soon as practicable
- Reversing current trends in greenhouse gas emissions to support sustainability goals for energy, water supply, agriculture, and other resource areas
- Minimizing land uses that increase the risk of adverse air pollution-related health impacts from exposure to toxic air contaminants, particulates (PM_{10}, $PM_{2.5}$, ultrafine), and carbon monoxide

Regional Transportation Plan

On May 8, 2012, the Regional Council of SCAG adopted the 2012 Regional Transportation Plan (RTP) and SCS for the SCAG area aimed at attaining the reduction targets of an 8 percent per capita reduction in GHG emissions from passenger vehicles by the year 2020 and a 13 percent reduction by 2035. There are transportation-related reduction measures included in this Regional Reduction Plan that coordinate with efforts in SCAG's SCS. The 2012 RTP strives to provide a regional investment framework to address the region's transportation and related challenges, and looks to strategies that integrate land use into transportation planning with an emphasis on transit and other nonvehicle transportation modes. The RTP also provides the framework for aggregating subregional and local efforts to institute measures aimed at mitigating the adverse air pollution impacts from transportation activities. These measures are known as transportation control measures (TCMs). The RTP links the goal of sustaining mobility with the goals of fostering economic development, enhancing the environment, reducing energy consumption, promoting transit-friendly development patterns, and encouraging fair and equitable access to residents affected by socio-economic, geographic, and commercial limitations. The Regional Transportation Implementation Plan (RTIP) is the vehicle used to implement the RTP and SCS. The RTIP also provides the schedule and framework for the timely implementation of the Region's TCM strategies. SCAG is currently in the process of developing the 2014 RTP and SCS for their jurisdiction aimed at updating the regional transportation modeling system and keeping on track to achieve the reduction targets.

SCAG Compass Growth Visioning

The Compass Blueprint Growth Vision effort by SCAG is a response, supported by a regional consensus, to the land use and transportation challenges facing Southern California now and in the coming years. The Growth Vision is driven by four key principles:

- **Mobility**—Getting where we want to go
- **Livability**—Creating positive communities
- **Prosperity**—Long-term health for the region
- **Sustainability**—Preserving natural surroundings

The fundamental goal of the Compass Growth Visioning effort is to make the SCAG region a better place to live, work, and play for all residents regardless of race, ethnicity, or income class. Thus, decisions

regarding growth, transportation, land use and economic development should be made to promote and sustain for future generations the region's mobility, livability and prosperity.

South Coast Air Quality Management District (SCAQMD)

The City of Chino is also located within the South Coast Air Basin (Basin) and is, therefore, within the jurisdiction of the SCAQMD. The 2012 Air Quality Management Plan (AQMP) is a regional and multi-agency effort between the SCAQMD Governing Board, California ARB, Southern California Association of Governments, and the USEPA, and includes control strategies, attainment demonstration, reasonable further progress, and maintenance plans. The AQMP is periodically updated to incorporate more recent scientific data, primarily in the form of updated emissions inventories, ambient measurements, new meteorological episodes, and new air quality modeling tools. The AQMP provides guidance to local government about how to incorporate these strategies into land use plans and decisions about development.

SCAG is responsible for generating the socio-economic profiles and growth forecasts on which land use, transportation, air quality management and implementation plans are based. The growth forecasts provide the socioeconomic data used to estimate vehicle trips and vehicle miles traveled (VMT). Emission estimates can then be forecast by SCAQMD based on these projected estimates. Reductions in emissions due to changes in the socio-economic profile of the region are an important way of taking account of changes in land use patterns. For example, changes in jobs/housing balance induced by changes in urban form and transit-oriented development induce changes in VMT by more closely linking housing to jobs. Thus, socio-economic growth forecasts are a key component to guide the Basin toward attainment of the National Ambient Air Quality Standards (NAAQS).

The current 2012 AQMP establishes a comprehensive regional air pollution control program leading to the attainment of state and federal air quality standards in the Basin. The 2012 AQMP incorporates significant new emissions inventories, ambient measurements, scientific data, control strategies, and air quality modeling including transportation conformity budgets that show VMT emissions offsets following the recent changes in USEPA requirements.

Local

Chino General Plan

The Chino General Plan provides a framework for the City's physical, economic, social, and environmental development and addressing all geographic areas in the City and includes all the required elements of a general plan. California law requires that other local government programs be consistent with the general plan. The City's zoning and subdivision regulations, capital improvement programs, specific plans, development agreements, housing programs, redevelopment programs, and economic development activities further the achievement of general plan goals. The Chino General Plan provides guidance on how City programs and activities should be changed or strengthened to best implement the policies. Relevant Chino General Plan policies are summarized in Section 4.3.0, Table 4.3-2 (Chino General Plan Policies).

Chino Zoning Ordinance

Chino's Zoning Ordinance is contained in the Municipal Code. The Zoning Ordinance is the mechanism used to implement the goals, objectives and policies of the General Plan and to regulate all land use within the City.

Chino Specific and Master Plans

The City of Chino currently has eight active specific and master plans. Six of these, the Majestic Spectrum Specific Plan, the Central Avenue Master Plan, the Downtown Civic Center Master Plan, the East Chino Specific Plan, the Eucalyptus Business Park Specific Plan, and the Subarea 1 Master Plan, would cease to be in effect upon adoption of the Proposed General Plan. The other two, The Preserve Specific Plan and the College Park Specific Plan, would remain in effect. Each specific plan contains specific land use designations, policies and regulations to implement the development strategy for each area.

Chino Airport Master Plan

The Chino Airport is adjacent to the southern boundary of the City of Chino. It is owned and operated by the San Bernardino County Airports Department. The Airport Master Plan for Chino Airport was prepared in December 2003 with collaboration with the Federal Aviation Administration (FAA), San Bernardino County, the City of Chino, and the City of Chino. It serves to guide the development and expansion of the airport in response to projected future needs.

Project Impact Evaluation

Thresholds of Significance

The following thresholds of significance are based on the 2012 CEQA Guidelines Appendix G. For purposes of this EIR, implementation of the San Bernardino County Regional GHG Reduction Plan might have a significant adverse impact on land use/planning if it would do any of the following:

- Physically divide an established community
- Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to, the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect
- Conflict with any applicable habitat conservation plan or natural community conservation plan

Analytic Method

The programs and measures contained in the Regional Reduction Plan were compared to applicable land use plan policies to determine if any inconsistency exists. These land use plans include the SCAQMD 2012 Air Quality Management Plan, Habitat Conservation Plans, SCAG's Regional Comprehensive Plan and Guide (RTP and Compass Growth Visioning), Chino General Plan, City Zoning Code, specific plans adopted by the City, LAONT Airport Master Plan, and the Chino Airport Master Plan.

Effects Not Found to Be Significant

Threshold	Would the project physically divide an established community?

As identified in Chino General Plan Draft EIR Chapter 4.9, the City of Chino is an urbanized area and implementation of the Chino General Plan would not physically divide an established community. As stated in the Community Character Element, neighborhood identity and preservation is encouraged (see Community Character Element Policies CC-2.1). The Land Use Element has specific policies for compatibility that would reduce the amount of conflict between contradicting land uses (see Land Use Policies LU-1.1, LU-1.2, LU-1.3, LU-2.1, LU-5.1, and LU-7.1). The facilities proposed under the Regional Reduction Plan would not include any physical barriers that could divide an established community. There would be ***no impact***. Further analysis is not required.

Threshold	Would the project conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to, the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?

Several regionally and locally adopted land use plans, policies, and regulations would be applicable to development of infrastructure and renewable generation under the proposed Regional Reduction Plan. These include the 2012 Air Quality Management Plan, SCAG's Regional Comprehensive Plan and Guide, 2012 RTP and SCS, City Zoning Code, and the Chino Airport Master Plan.

To fulfill the purposes of the Regional Reduction Plan, the City identified the following goals:

- Provide a list of specific actions that will reduce GHG emissions, with the highest priority given to actions that provide the greatest reduction in GHG emissions and benefits to the community at the least cost.
- Reduce the City of Chino community GHG emissions to a level that is 15 percent below its projected emissions level in 2020.
- Establish a qualified reduction plan for which future development within the City can tier and thereby streamline the environmental analysis necessary under the California Environmental Quality Act (CEQA).

The City will meet and exceed this goal through a combination of state (~84 percent) and local (~16 percent) efforts. The City actually exceeds the goal with only state/county level actions (100 percent of goal), but has committed to several additional local measures. The Pavley vehicle standards, the state's low carbon fuel standard, the RPS, and other state measures will significantly reduce GHG emissions in Chino's on-road and building energy sectors in 2020. An additional reduction of 36,879 MT CO_2e will be achieved primarily through the following local measures, in order of importance: Implement SBX 7-7 (Water-4); Implementation of Solar Installation for Existing Housing (Energy-7), and Energy Efficiency for Existing Buildings (Energy-1). Chino's Plan has the greatest impacts on GHG emissions in the on-road transportation, building energy, and solid waste management sectors.

The bars in Figure 4.3-2 (Emissions Reduction Profile for Chino) in Section 4.3.0 (Introduction to the Analysis) shows Chino's 2008 GHG emissions total, 2020 BAU emissions forecast total, and the total

emissions remaining after meeting the city's emissions reduction target (i.e., 15 percent below the 2008 emissions level). The contribution of state/county and local reductions are overlaid on the 2020 BAU emissions forecast total ("2020 Plan"), representing the total emissions reductions achieved in 2020. As stated above, state/county reductions account for the majority (~84 percent) of the total reductions needed to achieve the 2020 target.

Figure 4.3-3 (Emissions by Sector for Chino) in Section 4.3.0 presents emissions by sector, for both the 2020 BAU and the 2020 reduction or "Plan" scenarios. The largest emissions contributions are in the on-road transportation, building energy, and off-road equipment emissions sectors.

Table 4.3-3 (Emission Reduction by Sector for Chino) in Section 4.3.0 summarizes the 2008 inventory, 2020 BAU forecast, and GHG reduction ("Plan") results by sector. It shows the percent reduction in each sector's emissions in 2020 and demonstrates that Chino exceeds its emissions reduction goal. Emissions sectors with the greatest percent reduction include the on-road transportation, building energy, and solid waste management sectors.

Figure 4.3-4 (Emission Reductions by Control and by Sector for Chino) in Section 4.3.0 presents emission reductions by sector and by control (i.e., state/county control versus local or city control). As stated previously, the majority of emissions reductions are due to state/county measures. Of the state/county measures, the majority of reductions are in the building energy and on-road transportation sectors. Of the local measures, the majority of reductions are in the building energy sector and due to the implementation of SBX 7-7 (Water-4).

The Regional Reduction Plan reduction measure Transportation-2 (Smart Bus Technologies) includes improved access to public transportation which has been shown to save consumers up to 512 gallons of gasoline per year. Going hand-in-hand with improved access to public transportation is the development of pedestrian corridors and bike trails that connect residents to work sites, shops, and recreational opportunities, which can also realize a reduction of personal vehicle use and fuel consumption.

The Regional Reduction Plan reduction measures Energy-1, Energy-4, Energy-5, Energy-7, and Energy-7 include more efficient use of energy and renewable energy within buildings, often called green building technology. Green buildings can significantly reduce local environmental impacts, regional air pollutant emissions, and global greenhouse gas emissions. Green building standards involve everything from energy efficiency and use of renewable resources to reduced waste generation and water usage. For example, water-related energy use consumes 19 percent of the state's electricity, and the residential sector accounts for 48 percent of both the electricity and natural gas consumption associated with urban water use. Thus, energy-efficiency and green building practices can result in a substantial reduction in the use of energy and associated greenhouse gas emissions.

Policies in the applicable land use plans identified above are designed to promote sustainability in land use planning. For example, SCAG's RTP provides the framework for aggregating sub-regional and local efforts to institute measures aimed at mitigating the adverse air pollution impacts from increased transportation activities. These measures are known as transportation control measures (TCMs). The RTP links the goal of sustaining mobility with the goals of fostering economic development, enhancing the environment, reducing energy consumption, promoting transportation-friendly development patterns, and encouraging fair and equitable access to residents affected by socio-economic, geographic,

and commercial limitations. The current AQMP establishes a comprehensive regional air pollution control program leading to the attainment of state and federal air quality standards in the Basin. In addition to setting minimum acceptable exposure standards for specified pollutants, the AQMP incorporates SCAG's growth management strategies that can be used to reduce vehicle trips and VMT, and hence air pollution. These include, for example, co-location of employment and housing, and mixed-use land patterns that allow the integration of residential and non-residential uses. The goals of the Chino General Plan promote sustainability. The goals of the MSHCP are to conserve biological resources in land use planning, which can be achieved, in part, by locating development outside of sensitive biological areas.

The proposed Plan furthers the goals and policies in the identified land use plans by providing specific measures and programs that reduce greenhouse gas emissions, improve air quality, and facilitate transit-oriented development, thus reducing VMT. The Regional Reduction Plan facilitates mixed-use development in identified corridors near transit, as identified in the Chino General Plan, and does not provide for development in sensitive biological areas, consistent with the policies of these plans.

While a separate document, the Regional Reduction Plan will be utilized as a companion document to the Chino General Plan to provide a more comprehensive and detailed framework for land-based policy decisions to reduce greenhouse gas emissions from existing and future development. The Regional Reduction Plan will further the goals and policies of the Chino General Plan with regard to energy conservation and sustainable development by implementing, in addition to City programs already in place, measures and programs to reduce greenhouse gas emissions and facilitate transit-oriented development. Policies LU1-2, and LU5-1 of the Chino General Plan provide for sustainable mixed use development of walkable neighborhoods oriented around transit. Policies LU-3.3 and TRA-1.1 provide pedestrian walkways and infrastructure connecting land uses within the City. All of the land use policies in the Chino General Plan are written to maximize efficient use of resources, maintain a high quality of life, enhance job opportunities, promote sustainability, and facilitate access to transportation facilities. Policies related to historic resources are designed to protect and preserve recognized historic resources, and any facilities constructed or energy retrofits performed pursuant to the Regional Reduction Plan would be required to be consistent with those policies.

Implementation of the Regional Reduction Plan may result in retrofit and energy-generating projects throughout the City that would be subject to the guidelines and policies of the applicable Specific Plan(s). The specific plans within the City promote mixed uses and pedestrian-oriented and accessible development. The Regional Reduction Plan does not propose any specific development. Any energy-efficiency retrofits or energy-generating facilities that would be constructed in the specific plan areas would require consistency with the applicable specific plans. Thus, there would be no inconsistency with implementation of the Regional Reduction Plan.

Any facilities developed adjacent to or within the safety zones of the Chino Airport pursuant to the Regional Reduction Plan would be required to be consistent with the Chino Airport Master Plan policies for land uses adjacent to or within the airport safety zones to obtain approval. In addition, because the proposed Regional Reduction Plan furthers the goals of the identified land use plans, including the Chino General Plan, it is consistent with these plans. This impact would be ***less than significant***. No

mitigation is required. Implementation of the proposed project would ensure compliance with AB 32, which is a beneficial impact of the project.

Threshold	Would the project conflict with any applicable habitat conservation plan or natural community conservation plan?

See discussion in Section 4.3.4 (Biological Resources). City ordinance ensures compliance with the provisions of the habitat conservation plans. Implementation of the Regional Reduction Plan would be required to be consistent with these policies. This impact would be ***less than significant***. No mitigation is required.

Cumulative Impacts

The geographic context for land use impacts with respect to consistency with applicable land use plans is San Bernardino County, which assumes buildout to a horizon year of 2030 in the County General Plan. While the County is part of the larger SCAG region, compliance with SCAG policies is voluntary, and individual municipalities are not required, although they aim to, conform to SCAG policies. In addition, land use decisions are subject to the jurisdiction of the SCAQMD, which implements the AQMP for the South Coast Air Basin, of which the County is a part. All development in this geographic context is required to be consistent with the applicable General Plan, and any inconsistencies with the AQMP must be identified as impacts in the environmental analysis. The Regional Reduction Plan with respect to consistency with land use plans would be ***less than significant***.

References

Chino, City of. 2010a. *City of Chino General Plan*, July.

———. 2010b. *City of Chino General Plan Draft Environmental Impact Report*, January.

San Bernardino Associated Governments (SANBAG). 2012. *San Bernardino County Regional Greenhouse Gas Reduction Plan*. Draft. Prepared by ICF International, December.

4.3.11 Mineral Resources

This section of the EIR analyzes the potential environmental effects on mineral resources in the City of Chino from implementation of the Regional Reduction Plan. Data for this section were taken from the Chino General Plan (July 2010a) and associated environmental impact report (January 2010b). Full reference-list entries for all cited materials are provided at the end of this section.

No comment letters addressing mineral resources were received in response to the notice of preparation (NOP) circulated for the Regional Reduction Plan.

Environmental Setting

The California Geological Survey Mineral Resources Project provides information about California's nonfuel mineral resources. The Mineral Resources Project classifies lands throughout the state that contain regionally significant mineral resources, as mandated by the Surface Mining and Reclamation Act (SMARA) of 1975. Nonfuel mineral resources include metals such as gold, silver, iron, and copper; industrial materials such as boron compounds, rare-earth elements, clays, limestone, gypsum, salt, and dimension stone; and construction aggregate such as sand, gravel, and crushed stone. Development generally results in a demand for minerals, especially construction aggregate. Urban preemption of prime deposits and conflicts between mining and other uses throughout California led to passage of the SMARA, which requires all cities and counties to incorporate into their general plans the mapped designations approved by the state Mining and Geology Board.

The classification process involves the determination of Production-Consumption (P-C) Region boundaries, based on identification of active aggregate operations (production) and the market area served (consumption). The P-C regional boundaries are modified to include only those portions of the region that are urbanized or urbanizing and are classified for their aggregate content. An aggregate appraisal further evaluates the presence or absence of significant sand, gravel, or stone deposits that are suitable sources of aggregate. The classification of these mineral resources is determined jointly by the state and the local governments. It is based on geologic factors and requires that the State Geologist classify the mineral resources area as one of the four Mineral Resource Zones (MRZs), Scientific Resource Zones (SZ), or Identified Resource Areas (IRAs), described below:

- **MRZ-1**—Adequate information indicates that no significant mineral deposits are present or likely to be present
- **MRZ-2**—Adequate information indicates that significant mineral deposits are present or there is a likelihood of their presence, and development should be controlled
- **MRZ-3**—The significance of mineral deposits cannot be determined from the available data
- **MRZ-4**—There is insufficient data to assign any other MRZ designation
- **SZ Areas**—Containing unique or rare occurrences of rocks, minerals, or fossils that are of outstanding scientific significance
- **IRA Areas**—Areas identified by the county or the State Division of Mines and Geology, where adequate production and information indicates that significant minerals are present

According to these designations, Chino is located in the MRZ-1 and MRZ-3 zones, as shown in Figure 4.3.11-1 (Mineral Resource Zones). In the MRZ-1 Mineral Resource Zone there are no rocks suitable for commercial use, such as shale, siltstone, carbonates and chlorite-schist, and no fine-grained sedimentary deposits that are suitable for use as aggregate. The MRZ-3 Zone contains sand and gravel deposits, although there is insufficient data to ascertain whether these mineral deposits are significant.

Regulatory Framework

A mineral is an element or chemical compound that is normally crystalline and that has been formed by geological processes. Minable minerals are deposits of ore or mineral having a value materially in excess of the cost of developing, mining, and processing the mineral and reclaiming the project area. The following describes the regulatory framework of mineral resources and gives context in evaluating the impacts to mineral resources.

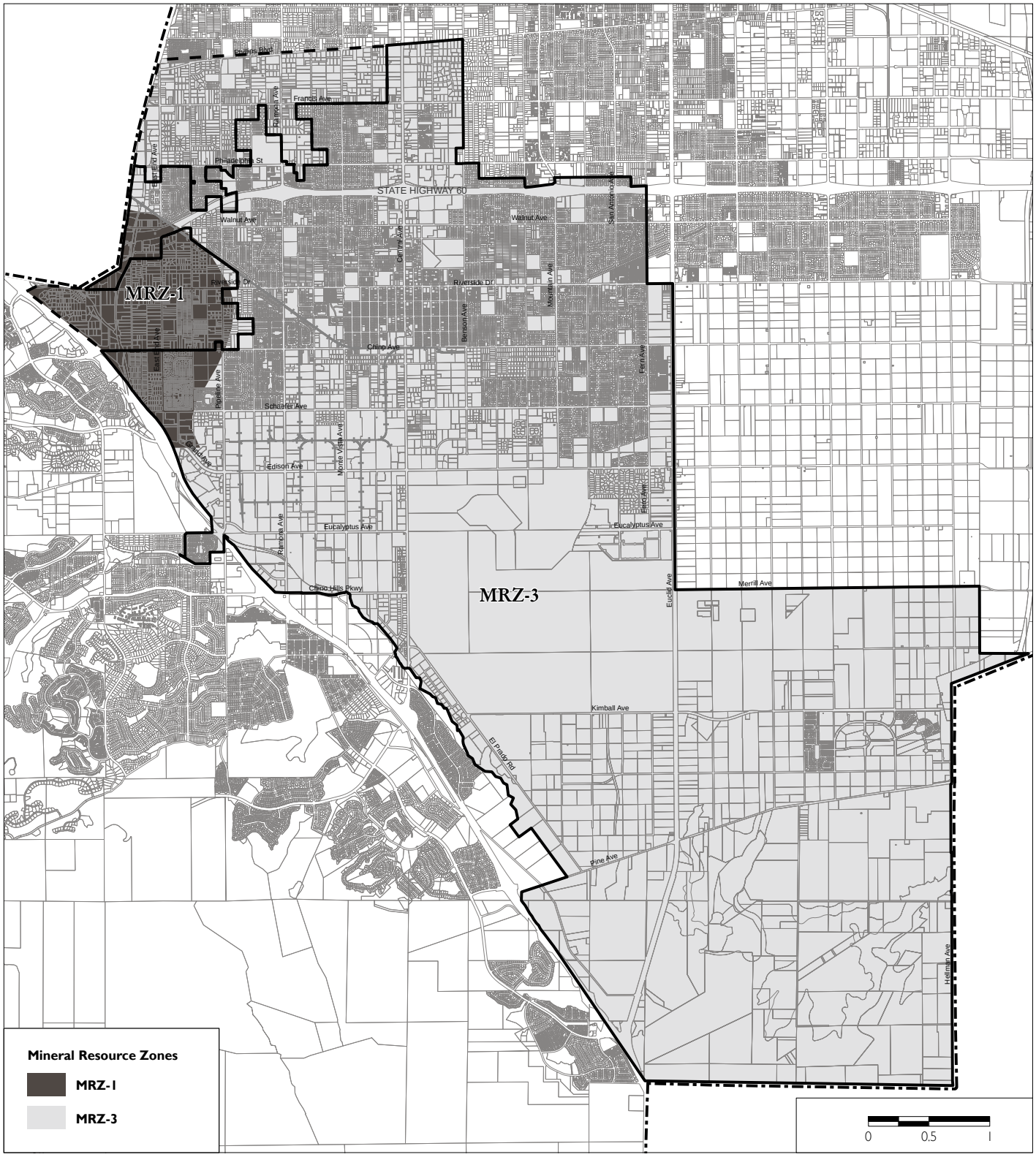
Federal

United States Department of the Interior, Office of Surface Mining, Reclamation and Enforcement

The Office of Surface Mining Reclamation and Enforcement (OSM) is a bureau within the United States Department of the Interior. OSM is responsible for establishing a nationwide program to protect society and the environment from the adverse effects of surface coal mining operations, under which OSM is charged with balancing the nation's need for continued domestic coal production with protection of the environment. OSM was created in 1977 when Congress enacted the Surface Mining Control and Reclamation Act. OSM works with the State and Indian tribes to assure that citizens and the environment are protected during coal mining and that the land is restored to beneficial use when mining is finished. OSM and its partners are also responsible for reclaiming and restoring lands and water degraded by mining operations before 1977.

Surface Mining Control and Reclamation Act

The Surface Mining Control and Reclamation Act of 1977 (SMCRA) is the primary federal law that regulates the environmental effects of coal mining in the United States. SMCRA created two programs: one for regulating active coal mines and a second for reclaiming abandoned mine lands. SMCRA also created the Office of Surface Mining, an agency within the Department of the Interior, to promulgate regulations, to fund state regulatory and reclamation efforts, and to ensure consistency among state regulatory programs. Under SMCRA, the federal government can approve a program, which gives the state the authority to regulate mining operations, if the state demonstrates that it has a law that is at least as strict as SMCRA, and that they have a regulatory agency with the wherewithal to operate the program. OSM has delegated authority to the California Department of Conservation for enforcement of SMCRA through California Public Resources Code (PRC) Sections 2710–2796.



Source: City of Chino General Plan Draft Environmental Impact Report, January 2010.

Figure 4.3.11-1
Mineral Resource Zones

ATKINS

State

California Department of Conservation

The California Department of Conservation provides services and information that promote environmental health, economic vitality, informed land-use decisions and sound management of our state's natural resources including mineral resources. The California Department of Conservation maintains information on mineral resources within the state through the California Geological Survey Mineral Resources Project. The California Department of Conservation regulates mining of mineral resources through the Office of mining Reclamation (OMR), who enforce Surface Mining and Reclamation Act.

Surface Mining and Reclamation Act

The Surface Mining and Reclamation Act of 1975 (SMARA, PRC Sections 2710–2796) provides a comprehensive surface mining and reclamation policy with the regulation of surface mining operations to assure that adverse environmental impacts are minimized and mined lands are reclaimed to a usable condition. SMARA also encourages the production, conservation, and protection of the state's mineral resources. PRC Section 2207 provides annual reporting requirements for all mines in the state, under which the State Mining and Geology Board is also granted authority and obligations. SMARA, PRC Chapter 9, Division 2, requires the State Mining and Geology Board to adopt State policy for the reclamation of mined lands and the conservation of mineral resources. These policies are prepared in accordance with the Administrative Procedures Act, (Government Code) and are found in California Code of Regulations Title 14, Division 2, Chapter 8, Subchapter 1.

Regional

There are no regional regulations pertaining to mineral resources.

Local

Chino General Plan

The Chino General Plan policies that are applicable to mineral resources[13] are as follows:

Policy OSC-3.1 **P1.** The City shall restrict permitted uses on lands containing and adjacent to important sand and gravel resources to those compatible with mineral extraction, except in cases where such uses offer public benefits that outweigh those of resource extraction.

P2. The City shall require mined property to be left in a condition suitable for reuse in conformance with the General Plan land use designations and the California Surface Mining and Reclamation Act (SMARA).

[13] These policies are not a complete listing of all policies contained in the General Plan; those policies that would be most applicable to the proposed project are included here.

Project Impact Evaluation

Thresholds of Significance

The following thresholds of significance are based on the 2012 CEQA Guidelines Appendix G. For purposes of this EIR, implementation of the San Bernardino County Regional GHG Reduction Plan might have a significant adverse impact on mineral resources if it would do any of the following:

- 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
- 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

Analytic Method

The following analysis considers whether or not implementation of the Regional Reduction Plan within the City would impact mineral resources.

Effects Not Found to Be Significant

Threshold	Would the project 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?

The City is only required to analyze mineral resource recovery areas that have been designated by the State as MRZ-2 (significant existing or likely mineral deposits). No MRZ-2 areas have been designated in the City. Therefore, there would be ***no impact***. Further analysis is not required.

Threshold	Would the project result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?

The locally important mineral resource recovery sites delineated in the Chino General Plan are shown on Figure 4.3.11-1. There are no locally important mineral resource sites delineated on the City's General Plan. Therefore, there would be ***no impact***. Further analysis is not required.

Cumulative Impacts

Because the Regional Reduction Plan does not significantly impact mineral resources at a project level, implementation of the Regional Reduction Plan will not create impacts to mineral resources that are cumulatively considerable. Therefore, ***cumulative impacts would be less than significant***.

References

Chino, City of. 2010a. *City of Chino General Plan*, July.

———. 2010b. *City of Chino General Plan Draft Environmental Impact Report*, January.

San Bernardino Associated Governments (SANBAG). 2012. *San Bernardino County Regional Greenhouse Gas Reduction Plan*. Draft. Prepared by ICF International, December.

4.3.12 Noise

This section of the EIR analyzes the potential environmental effects on noise in the City of Chino from implementation of the Regional Reduction Plan. Data for this section were taken from the Chino General Plan (July 2010a) and associated environmental impact report (January 2010b). Full reference-list entries for all cited materials are provided at the end of this section.

No comment letters addressing noise were received in response to the notice of preparation (NOP) circulated for the Regional Reduction Plan.

Environmental Setting

Noise Terminology and Effects

Noise is defined as unwanted or objectionable sound. The effects of noise on people can include general annoyance, interference with speech communication, sleep disturbance and, in the extreme, hearing impairment. The unit of measurement used to describe a noise level is the decibel (dB). The human ear is not equally sensitive to all frequencies within the sound spectrum. Therefore, the "A weighted" noise scale, which weights the frequencies to which humans are sensitive, is used for measurements. Noise levels using A weighted measurements are written dB(A) or dBA. Decibels are measured on a logarithmic scale, which quantifies sound intensity in a manner similar to the Richter scale used for earthquake magnitudes. Thus, a doubling of the energy of a noise source, such as doubling a traffic volume, would increase the noise level by 3 dBA; a halving of the energy would result in a 3 dBA decrease Table 4.3.12-1 (Sound Levels of Typical Noise Sources and Noise Environments) shows the relationship of various noise levels to commonly experienced noise events.

Average noise levels over a period of minutes or hours are usually expressed as dB L_{eq}, or the equivalent noise level for that period of time. For example, $L_{eq(3)}$ would represent a 3-hour average. When no period is specified, a one hour average is assumed. Noise standards for land use compatibility, which are addressed in the Chino General Plan Noise Element and Noise Control Ordinance, are stated in terms of the Community Noise Equivalent Level (CNEL) and the Day-Night Average Noise Level (L_{dn}). CNEL is a 24-hour weighted average measure of community noise. The computation of CNEL adds 5 dBA to the average hourly noise levels between 7:00 PM and 10:00 PM (evening hours), and 10 dBA to the average hourly noise levels between 10:00 PM and 7:00 AM (nighttime hours). This weighting accounts for the increased human sensitivity to noise in the evening and nighttime hours. L_{dn} is a very similar 24-hour weighted average which weights only the nighttime hours and not the evening hours.

It is widely accepted that the average healthy ear can barely perceive changes of 3 dBA, increases or decreases; that a change of 5 dBA is readily perceptible, and that an increase (decrease) of 10 dBA sounds twice (half) as loud (Caltrans 1998).

Table 4.3.12-1 Sound Levels of Typical Noise Sources and Noise Environments

Noise Source (at a Given Distance)	*Noise Environment*	*Scale of A-Weighted Sound Level in Decibels*	*Human Judgment of Noise Loudness (Relative to a Reference Loudness of 70 dB*)*
Military Jet Take-off with After-burner (50 ft)	Carrier flight deck	140	Hearing damage without protection 128 times as loud
Civil Defense Siren (100 ft)		130	64 times as loud
Commercial Jet Take-off (200 ft)	Airport Runway	120	Threshold of Pain 32 times as loud
Pile Driver (50 ft) Rock & Roll Band (50 ft)	Construction Site Rock Concert	110	16 times as loud
Ambulance Siren (100 ft) Newspaper Press (5 ft) Power Lawn Mower (3 ft) Motorcycle (25 ft) Propeller Plane Flyover (1,000 ft) Diesel Truck, 40 mph (50 ft) Garbage Disposal (3 ft)	Boiler Room Printing Press Plant High Urban Ambient Sound	100 90 89	Very Loud 8 times as loud 4 times as loud 2 times as loud
Passenger Car, 65 mph (25 ft) Living Room Stereo (15 ft) Vacuum Cleaner (3 ft) Electronic Typewriter (10 ft)	Busy Shopping Mall Indoor Sports Park	70	Moderately Loud * 70 dB (Reference Loudness)
Normal Conversation (5 ft) Air Conditioning Unit (100 ft)	Data Processing Center Department Store	60	½ as loud
	Office	50	¼ as loud
	Lower Limit of Urban Ambient Sound	40	Quiet ⅛ as loud
Bird calls (distant)	Rural Residential Area	30	
Soft Whisper (5 ft)	Quiet Bedroom	20	Just Audible
		10	Threshold of Hearing

The most significant sources of noise in Chino are traffic on State Route 60 (SR-60) and SR-71, arterial traffic, and aircraft operations at Chino Airport and Ontario International Airport. Noise is also generated at the Union Pacific. Rail line and on individual commercial and industrial parcels throughout the City. An evaluation of the existing noise environment in Chino includes 24-hour and limited noise measurements, described below:

- **24-Hour Noise Measurements**—Monitoring of 24-hour noise levels was conducted at eight locations in Chino over a period of three days in November 2008.
- **Limited Noise Measurements**—Twelve limited noise measurements were made at ten locations throughout Chino in November 2008. L_{02}, L_{08}, L_{25}, and L_{50} are the noise levels exceeded for more than 2, 8, 25, and 50 percent of the time, respectively, during the measurement period. L_{max} is the maximum noise level during the measurement period. L_{dn} is the average the average A-

weighted noise level for the 24-hour day, after 10 dB have been added to levels measured between 10:00 PM and 7:00 AM.

Noise measurement locations are identified in Figure 4.3.12-1 (Noise Measurement Locations) and measurement levels are shown in Table 4.3.12-2 (Summary of Existing Noise Measurement Levels).

In compliance with California Government Code Section 65302(f), L_{dn} contours were developed for the existing noise conditions within Chino. The L_{dn} contours for the major arterials, the freeways, and the railroad within Chino were developed using SoundPLAN version 6.5 software and the Traffic Noise Model (TNM) lookup tables developed by the FHWA. The models are based on traffic data from Caltrans and Iteris, Inc. These contour maps are shown in the following subsections.

Freeway and Arterial Traffic

Freeway traffic is the dominant noise source in Chino. The main contributor is SR-60 (Pomona Freeway), which runs through the northern parts of Chino. With between 224,000 and 228,000 vehicles per day, SR-60 generates an unmitigated L_{dn} of up to 86 dB at noise-sensitive locations next to the freeway. The City's exterior noise standard is 65 dB, as defined in the Noise Ordinance. In other noise-sensitive areas along the freeway that are mitigated by existing soundwalls, topography, or buildings, the L_{dn} was lower, although these measurements still exceed the Noise Ordinance standard of 65 dB.

The other major source of freeway traffic noise is created by SR-71, which runs along the southwest edge of Chino. SR-71, with 57,000 to 92,000 vehicles per day, generates an unmitigated L_{dn} of up to 81 dB at noise-sensitive locations adjacent to the freeway. At noise-sensitive locations mitigated by existing soundwalls, topography, or buildings, the L_{dn} is substantially lower, but still exceeds the City's Noise Element standard of 65 dB.

Other sources of noise in Chino are the major and secondary arterials that are within or adjacent to noise-sensitive areas. Examples of such areas might be residential communities, hospitals and parks near major and second arterials.

The following roadway segments may exceed the 65 dB standard:

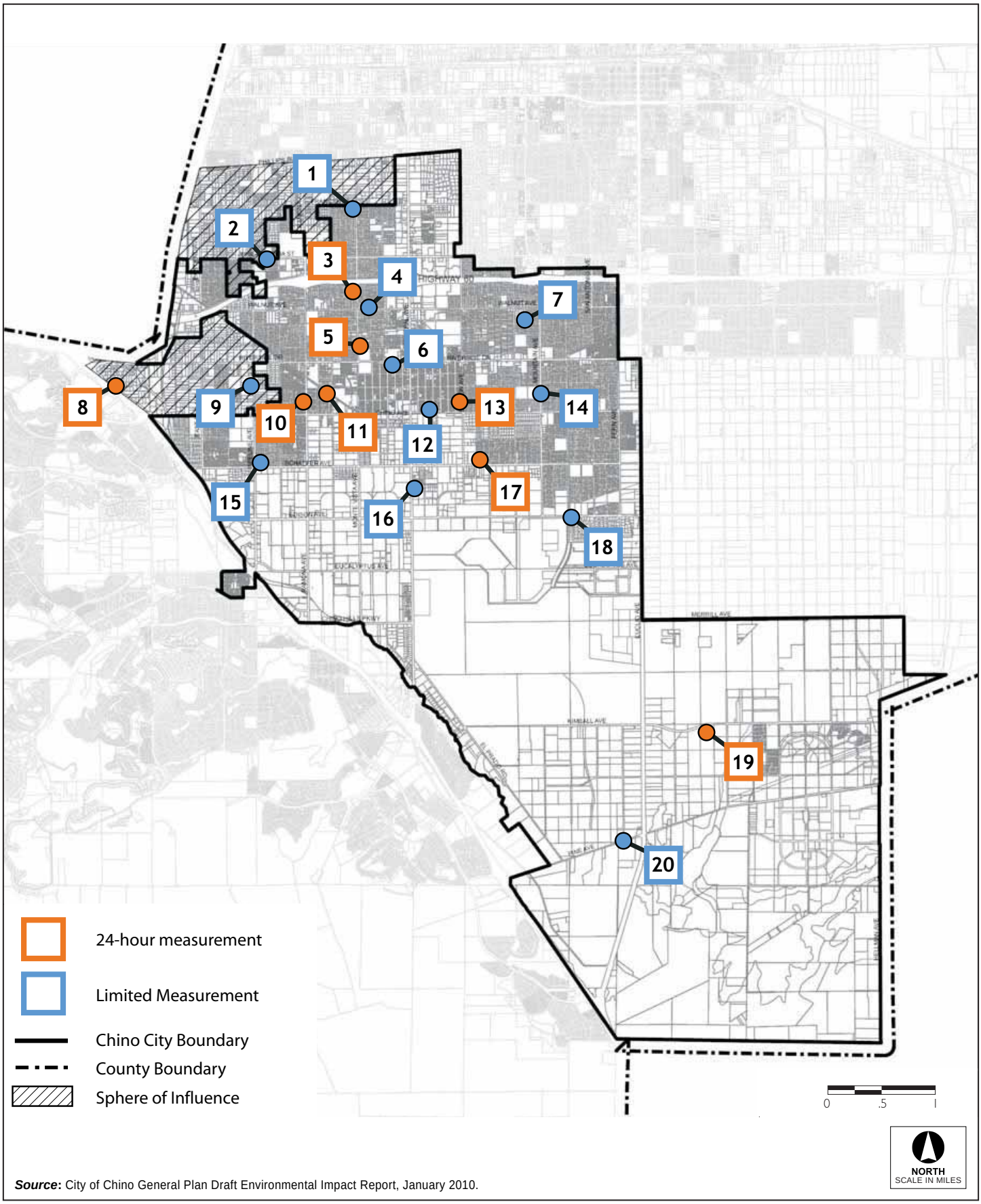
- Benson Avenue, from Phillips Boulevard to Chino Avenue
- Central Avenue, from Phillips Boulevard to SR-71
- Chino Avenue, from SR-71 to Central Avenue
- Chino Avenue, from Central Avenue to Benson Avenue
- Chino Avenue, from Benson Avenue to Euclid Avenue
- Chino Corona Road, from Pine Avenue to Hellman Avenue
- Chino Hills Parkway, from SR-71 to Central Avenue
- East End Avenue, from Phillips Avenue to Schaefer Avenue
- Edison Avenue, from Pipeline Avenue to Euclid Avenue
- El Prado Road, from Central Avenue to Kimball Avenue

Table 4.3.12-2 Summary of Existing Noise Measurement Levels

Site	Location	Date	Time	L_{02}	L_{08}	L_{25}	L_{50}	L_{max}	L_{dn}
Long-Term Measurements									
1	Front yard of 11711 Crystal Ave	11/5/2008	11:05 AM–11:38 AM	69.5	64.9	60.5	55.1	75.6	N/A
2	In front of 12102 Olive Pl	11/6/2008	1:12 PM–1:37 PM	59.2	54.2	50.5	48.2	67.2	N/A
3	Rear yard of 4878 Harrison St	11/4/2008–11/5/2008	24 hours	65.5–687.7	64.0–67.8	62.0–66.8	59.7–66.0	68.1–75.9	70.1
4	Adjacent to 12495 Baca Ave	11/4/2008	4:38 PM–5:02 PM	72.2	69.8	67.8	65.6	78.0	N/A
5	Rear yard of 4888 Lincoln Ave	11/4/2008–11/5/2008	24 hours	59.7–75.3	52.3–65.1	40.8–63.1	38.6–60.7	66.6–92.3	63.8
6	Adjacent to 5201 Riverside Ave	11/4/2008	3:46 PM–4:09 PM	71.2	68.7	66.6	64.5	82.8	N/A
7	Adjacent to 12614 Magnolia Ave	11/6/2008	3:45 PM–4:08 PM	67.8	63.1	55.5	49.2	79.4	N/A
8	Rear yard of 3017 Biscayne St	11/4/2008–11/5/2008	24 hours	59.0–65.9	57.0–65.1	54.8–64.4	52.9–63.6	61.5–76.1	65.7
9	Adjacent to 4016 Biscayne St	11/6/2008	11:44 AM–12:05 PM	73.3	71.0	68.7	64.7	77.1	N/A
10	Rear yard of 4497 Juanita Ave	11/5/2008–11/6/2008	24 hours	59.8–68.6	54.1–66.0	44.4–63.6	41.3–60.7	69.5–87.4	64.5
11	Rear yard of 13111 Bay Meadow Ct	11/4/2008–11/5/2008	24 hours	41.8–69.9	40.4–66.8	38.4–55.7	36.9–49.6	47.2–98.1	66.3
12	Front yard of 13285 Tenth St	11/4/2008	2:38 PM–2:59 PM	72.4	70.0	67.0	63.4	76.8	N/A
13	Side yard of 13172 Benson Ave	11/5/2008–11/6/2008	24 hours	50.2–64.8	43.2–58.4	39.6–54.8	38.1–52.2	63.0–89.0	55.8
14	In front of school field on Mountain Ave	11/6/2008	3:06 PM–3:26 PM	74.9	72.3	69.4	65.9	82.6	N/A
15	Adjacent to Unit #24, 4150 Schaefer Ave	11/6/2008	11:01 AM–11:22 AM	69.5	66.1	62.7	58.2	77.2	N/A
16	Adjacent to 5311 Anderson St	11/6/2008	2:14 PM–2:30 PM	75.5	72.8	70.5	66.8	80.2	N/A
17	Rear yard of 13640 Amber Rd	11/4/2008–11/5/2008	24 hours	40.0–57.5	38.8–55.9	37.8–54.3	36.6–53.1	44.8–71.3	52.1
18	Adjacent to 6522 Edison Ave	11/6/2008	9:57 AM–10:29 AM	74.0	70.4	66.0	61.1	82.9	N/A
19	Side yard of 7653 Kimball Ave	11/5/2008–11/6/2008	24 hours	58.3–68.5	50.3–63.6	39.4–60.6	36.0–58.2	66.4–87.8	61.6
20	Front yard of 6800 Pine Ave	11/5/2008	10:05 AM–10:38 AM	67.9	60.8	53.8	47.0	75.3	N/A

SOURCE: City of Chino (2010a).

L_n is the noise level exceeded for more than n percent of the time during the measurement period. For example, L_{50} is the noise level exceeded for more than 50 percent of the measurement period. L_{max} is the maximum noise level during the measurement period. L_{dn} is the average A-weighted noise level for a 24-hour period.



Source: City of Chino General Plan Draft Environmental Impact Report, January 2010.

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Figure 4.3.12-1

Noise Measurement Locations

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- El Prado Road, from Kimball Avenue to Pine Avenue
- Eucalyptus Avenue, west of SR-71
- Eucalyptus Avenue, from Pipeline Avenue to Central Avenue
- Eucalyptus Avenue, from College Park Avenue to Euclid Avenue
- Euclid Avenue, from Riverside Drive to SR-71
- Francis Avenue, from Monte Vista Avenue to Central Avenue
- Grand Avenue, from the City limits to Pipeline Avenue
- Merrill Avenue, from Euclid Avenue to Carpenter Avenue
- Monte Vista Avenue, from Phillips to Chino Hills Avenue
- Mountain Avenue, from Philadelphia Street to Edison Avenue
- Philadelphia Street, from Reservoir Street to Benson Avenue
- Philadelphia Street, east of Benson Avenue
- Phillips Boulevard, from East End to Pipeline Avenue
- Pine Avenue, from SR-71 to Euclid Avenue
- Pine Avenue, from Euclid Avenue to east of Grove Avenue
- Pine Avenue, from east of Grove Avenue to Hellman Avenue
- Pipeline Avenue, from Phillips Avenue to Philadelphia Street
- Pipeline Avenue, from Philadelphia Street to Eucalyptus Avenue
- Pipeline Avenue, from Eucalyptus Avenue to SR-71
- Ramona Avenue, from Phillips Boulevard to Chino Hills Parkway
- Riverside Drive, from SR-71 to Euclid Avenue
- Roswell Street, from Schaefer Avenue to Grand Avenue
- San Antonio Avenue, from Philadelphia Avenue to Walnut Avenue
- Schaefer Avenue, from East End Avenue to Euclid Avenue
- Walnut Avenue, from Pipeline Avenue to Ramona Avenue
- Walnut Avenue, from Ramona Avenue to Euclid Avenue

Figure 4.3.12-2 (Existing L_{dn} Contour Lines for Chino Roadways) identifies existing noise contours for Chino roadways ranging from 60 to 80 dB in 5 dB increments.

Chino Airport

The Chino Airport is located in the southeastern portion of the City. Its primary noise impacts occur in the vicinity of the airport, but there are few areas in the City that are not subject to flyovers to and from the airport. Figure 4.3.12-3 (Noise Contours for Chino Airport) shows the existing noise contours for the

Chino Airport. As shown in Figure 4.3.12-3, the 65 dB noise contour in general does not extend beyond the Chino Airport boundaries and, more importantly, does not cover any residential properties. Near the airport, 24-hour noise measurements were taken which revealed an L_{dn} of 61.6 dB, not exceeding the Noise Ordinance exterior noise standard of 65 dB.

Ontario International Airport

The Los Angeles/Ontario International Airport (LAONT) is a commercial air facility two miles northeast of Chino. Existing noise contours for Ontario International Airport are shown in Figure 4.3.12-4 (Noise Contours for Ontario International Airport). While the Ontario International Airport noise contours do not extend into Chino, the takeoff patterns direct the aircraft over central and eastern portions of Chino, exposing residents in these areas to single-event takeoff noise. The City of Chino has a Letter of Understanding with Los Angeles World Airports, the entity that operates the Ontario Airport. This agreement provides for a modified flight path for certain aircraft to ensure that they do not create additional noise impacts to Chino's residential areas.

Union Pacific Rail Line

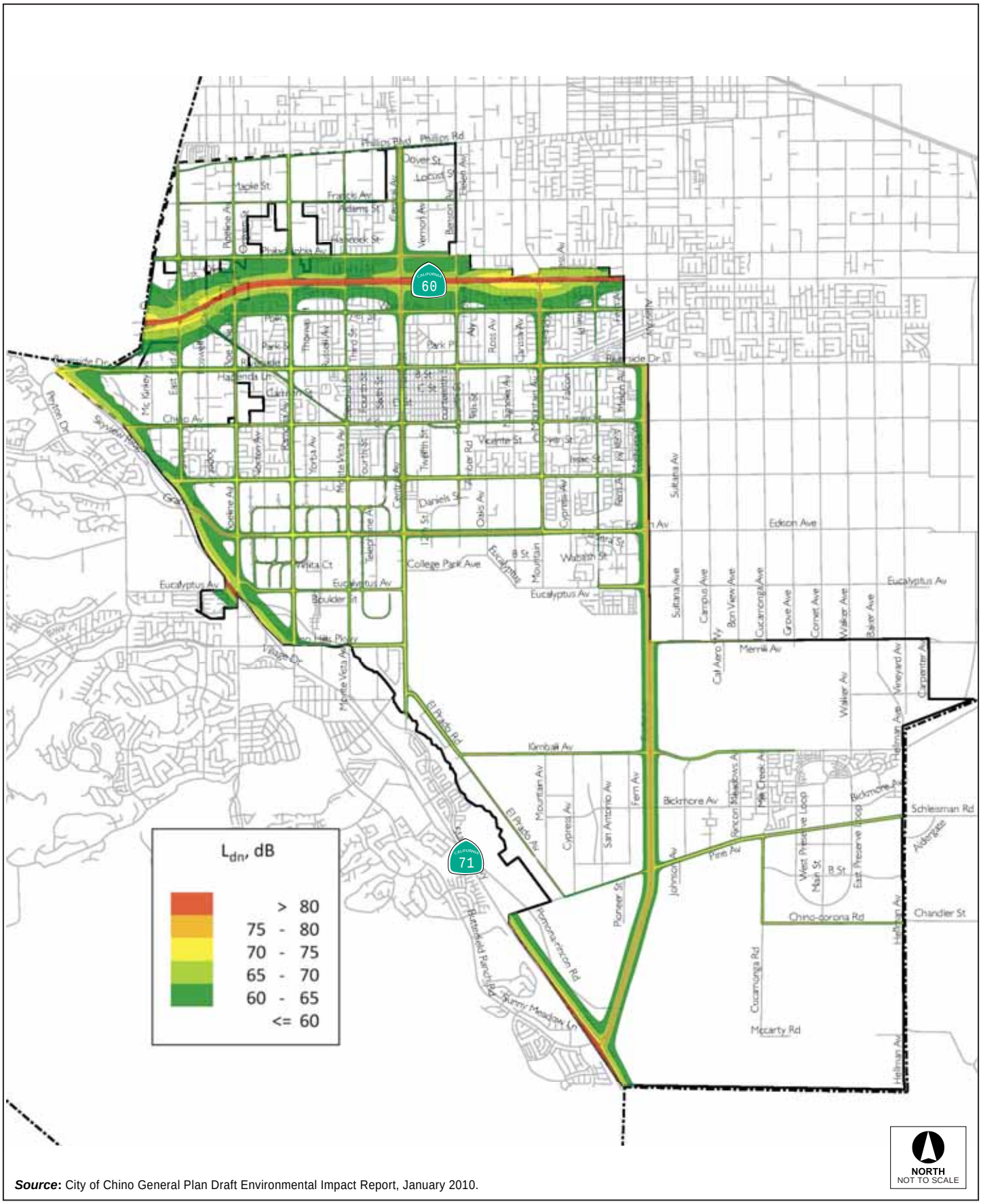
The Union Pacific operates a spur line that runs in the City of Chino. While the line is only used to service local industries and runs about four times a day, it does stop at a siding between Ramona and Monte Vista Avenues in a residential area. When stopping here, the freight train generates high noise levels, which have generated noise complaints. A continuous 24-hour measurement was obtained in the surrounding residential community to identify the existing noise environment in this area (refer to Figure 4.3.12-1, location #11). The results of the measurement, provided in Table 4.3.12-2, indicate an L_{dn} of 66.3 dB. This exceeds the City's Noise Element standard of 65 dB. The maximum noise level at this location was as high as 98.1 dBA. Data for future rail operations on the spur line is not available; however, it has been assumed that they will remain essentially the same as the existing operations, based on the best available information.

Commercial/Industrial Properties

Large industrial and commercial areas in Chino have the potential to generate noise. The primary noise-generating activities in these areas are loading dock operations, trucks entering and leaving the area, and mechanical equipment located both inside and outside the buildings. Industrial areas in Chino are mainly concentrated in the center of the City, while the main commercial corridor is located along Central Avenue.

Residential areas and other noise-sensitive activities that are located close to these commercial/industrial operations are generally at risk for noise disturbances. However, in general there are relatively few areas where industrial uses are located immediately adjacent to residential areas in Chino. Noise levels for one such residential/industrial interface area, a residence at 13640 Amber Road (location #17 in Table 4.3.12-2), are shown in Table 4.3.12-3 (Summary of Noise Levels Measured at the Residential/ Industrial Interface at 13640 Amber Road).

The table compares the highest noise levels measured during daytime and nighttime hours with the maximum allowed noise levels in the Noise Ordinance.



Source: City of Chino General Plan Draft Environmental Impact Report, January 2010.

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Figure 4.3.12-2

Existing Ldn Contour Lines for Chino Roadways

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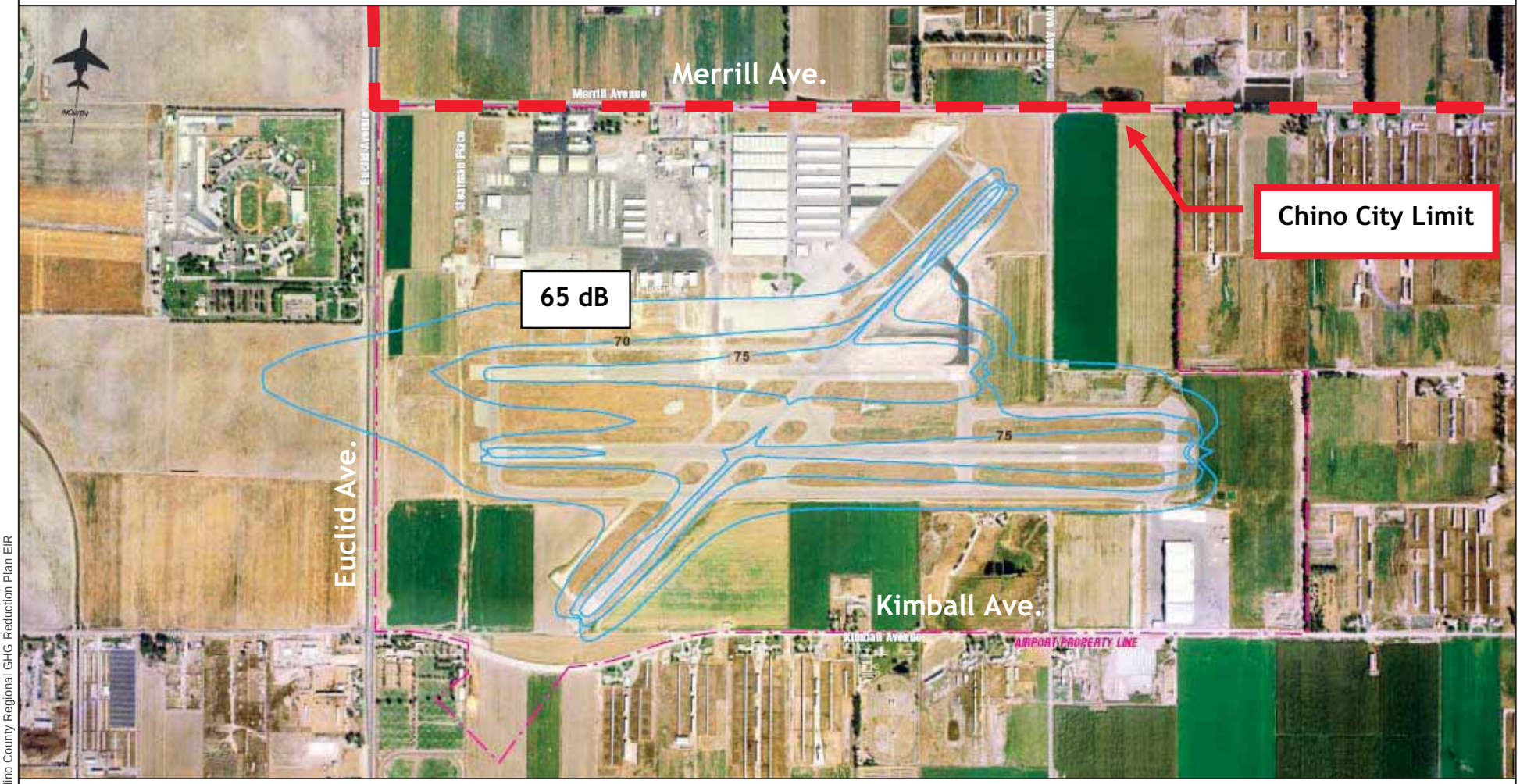
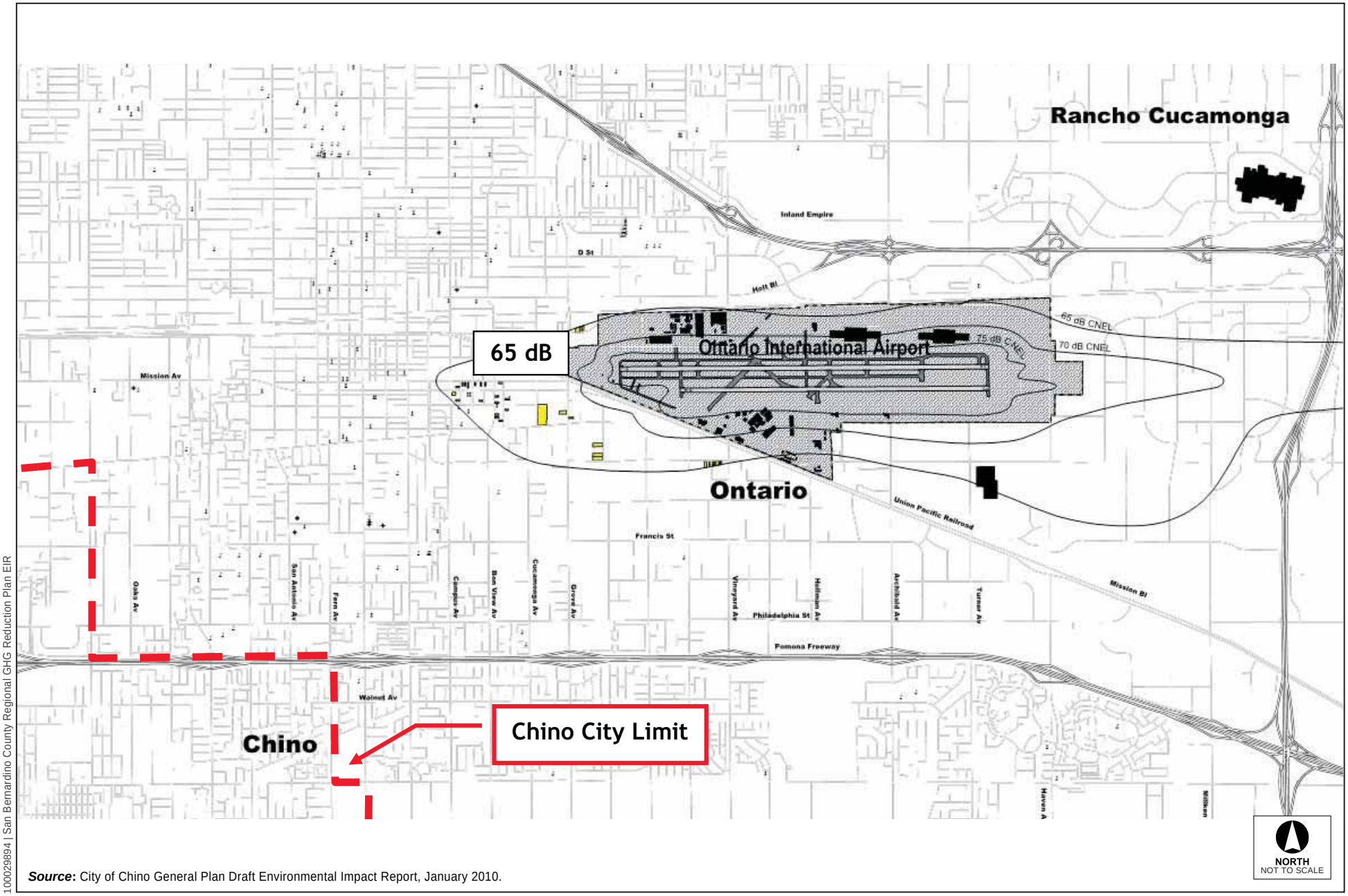


Source: City of Chino General Plan Draft Environmental Impact Report, January 2010.

Figure 4.3.12-3
Noise Contours for Chino Airport

ATKINS



Source: City of Chino General Plan Draft Environmental Impact Report, January 2010.

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Figure 4.3.12-4

Noise Contours for Ontario International Airport

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Table 4.3.12-3 Summary of Noise Levels Measured at the Residential/Industrial Interface at 13640 Amber Road

Maximum Time of Exposure	*Daytime Measured Noise Level*	*Daytime Noise Standard*	*Nighttime Measured Noise Level*	*Nighttime Noise Standard*
30 min/hr (L_{50})	53.1 dBA	55 dBA	49.5 dBA	50 dBA
15 min/hr (L_{25})	54.3 dBA	60 dBA	50.3 dBA	55 dBA
5 min/hr (L_{08})	55.9 dBA	65 dBA	51.3 dBA	60 dBA
1 min/hr (L_{02})	57.5 dBA	70 dBA	52.7 dBA	65 dBA
Any period of time (L_{max})	71.3 dBA	75 dBA	67.7 dBA	70 dBA

SOURCE: City of Chino (2010a).

Table 4.3.12-3 shows that noise levels generated by activities at the commercial use comply with the City's Noise Ordinance standard.

Regulatory Framework

Federal

Federal Highways Administration

The Federal Highways Administration (FHWA) administers the protocols and methods of analyzing traffic noise. United States Code of Federal Regulations Title 23, Part 772 (23 CFR 772), provides the procedures for analysis and abatement of highway traffic noise and construction noise. It provides technical assistance to state authorities, in conjunction with other local and federal authorities, to prepare and execute appropriate noise review and abatement programs for roadway and highway construction noise impacts. The maximum highway-related noise level considered acceptable for land uses along highways is 65 dBA CNEL.

Federal Aviation Administration

The primary responsibility of the Federal Aviation Administration (FAA) in regard to noise is the enforcement of the FAA Noise Standards (Title 14, Part 150), which prescribes the procedures, standards and methodology governing the development, submission, and review of airport noise exposure maps and airport noise compatibility programs, including the process for evaluating and approving or disapproving those programs. Title 14 also identifies those land uses which are normally compatible with various levels of exposure to noise by individuals. It provides technical assistance to airport operators, in conjunction with other local, state, and federal authorities, to prepare and execute appropriate noise compatibility planning and implementation programs. The FAA establishes the 65 dB CNEL contour of an airport as the threshold for evaluation of potential noise impacts. The maximum airport-related noise level considered compatible with NSLU is 65 dBA CNEL.

Federal Transit Administration

The Federal Transit Administration (FTA) establishes noise impact criteria to be used in evaluating noise impacts from mass transit projects, including railroads, in the Transit Noise and Vibration Impact

Assessment published in 2006. The FTA criteria do not establish a screening level for potential impacts. Rather, the FTA noise impact criteria are based on comparison of the existing outdoor noise levels and the future outdoor noise levels from the transit project. The noise level that would result from a proposed transit project's implementation is evaluated as having either a low, moderate or severe impact based on the existing noise level and sensitivity of the affected land use. Lands set aside for serenity and quiet are considered the most sensitive land uses (Category 1), followed by residences and buildings where people normally sleep (Category 2), and institutional land uses with primarily daytime and evening use (Category 3).

State

California Department of Transportation

The California Department of Transportation (Caltrans) administers the FHWA requirements for analysis and abatement of highway traffic noise and construction noise (23 CFR 772) in California. Caltrans also has additional technical methodologies for analysis of roadway and highway construction noise in California. The Caltrans Traffic Noise Analysis Protocol (CATNAP) and Technical Noise Supplement (TENS) provide the methodology and procedures for analysis and abatement of roadway noise in the state.

California Noise Control Act of 1973

California Health and Safety Code Sections 46000 through 46080, known as the California Noise Control Act, finds that excessive noise is a serious hazard to public health and welfare and that exposure to certain levels of noise can result in physiological, psychological, and economic damage. It also finds that there is a continuous and increasing bombardment of noise in the urban, suburban, and rural areas. The California Noise Control Act declares that the State of California has a responsibility to protect the health and welfare of its citizens by the control, prevention, and abatement of noise. It is the policy of the state to provide an environment for all Californians that is free from noise that jeopardizes their health or welfare.

California Noise Insulation Standards

In 1974, the California Commission on Housing and Community Development adopted noise insulation standards for multi-family residential buildings (California Code of Regulations Title 24, Part 2). Title 24 establishes standards for interior room noise (attributable to outside noise sources). The regulations also specify that acoustical studies must be prepared whenever a multi-family residential building or structure is proposed to be located near an existing or adopted freeway route, expressway, parkway, major street, thoroughfare, rail line, rapid transit line, or industrial noise source, and where such noise source or sources create an exterior CNEL (or L_{dn}) of 60 dBA or greater. Such acoustical analysis must demonstrate that the residence has been designed to limit intruding noise to an interior CNEL (or L_{dn}) of at least 45 dBA.

California Airport Noise Standards

The 1990 California Airport Noise Standards require airport proprietors, aircraft operators, local governments, pilots, and the California Department of Transportation Division of Aeronautics to work

cooperatively to diminish noise. This requirement is accomplished by controlling and reducing noise in the communities in the vicinity of airports. The level of noise acceptable to a person residing in the vicinity of an airport is established as a CNEL value of 65 dBA. The limitation on airport noise in residential communities is established to be 65 dBA CNEL for proposed new airports, active military airports being converted to civilian use, and existing civilian airports.

Regional

There are no regional regulations related to noise.

Local

City of Chino Municipal Code

Chino's Noise Ordinance provides regulations for the control of excessive and annoying noise from stationary sources. Examples of stationary sources include industrial plants, pumps, and compressors. In order to regulate noise from these sources, the Noise Ordinance establishes noise level standards. Section 9.40.040 of the Noise Ordinance describes maximum noise levels for noise intrusion into residential properties. These are described in Table 4.3.12-4 (Chino Exterior Noise Ordinance Standards). These standards exempt a variety of activities, such as those occurring on public parks, playgrounds or private school grounds, and occasional outdoor gatherings. In addition, noise or vibrations associated with construction repair or grading are exempted provided the activities do not occur outside of designated hours for construction. Noise from mechanical devices used for agricultural operations are also exempted. The Noise Ordinance also prohibits certain noise sources, and describes the manner in which the standards are to be enforced.

Table 4.3.12-4 Chino Exterior Noise Ordinance Standards

Maximum Time of Exposure	*Level Not to Exceed, 7:00 AM to 10:00 PM*	*Level Not to Exceed, 10:00 PM to 7:00 AM*
30 min/hr (L_{50})	55 dBA	50 dBA
15 min/hr (L_{25})	60 dBA	55 dBA
5 min/hr (L_{08})	65 dBA	60 dBA
1 min/hr (L_{02})	70 dBA	65 dBA
Any period of time (L_{max})	75 dBA	70 dBA

SOURCE: City of Chino (2010a).

Chino General Plan

The purpose of the Noise Element is to define the City's role and responsibility in safeguarding against noise pollution, and to reduce the negative impacts of noise on future developments by identifying major noise sources and compatible land uses. In order to accomplish this, the existing Noise Element provides

policies and actions that define and summarize the programs to be implemented by the City to achieve the desired goals. The Chino General Plan policies that are applicable to noise[14] are as follows:

Policy N-1.1

P1. The City shall not locate noise-sensitive land uses (schools, medical centers and hospitals, senior centers, and residences) in areas with noise levels that exceed those considered normally acceptable for each land use unless measures can be implemented to reduce noise to acceptable levels.

P2. The City shall require measures to ensure noise-sensitive uses have appropriate interior noise environments when located in areas adjacent to major noise generators.

P3. The City shall require measures that attenuate exterior and/or interior noise levels to acceptable levels to be incorporated into all development projects where current and/or future noise levels may be unacceptable.

P4. The City shall require a noise impact study to evaluate impacts of projects that may exceed 65 Ldn as part of the design review process.

P5. The City shall require an acoustical study for all new residential developments that lie within the 65 Ldn noise contour on the Future Noise Contour Map, to ensure indoor levels will not exceed City standards. In addition, the City shall continue to enforce the California Building Code for indoor noise levels.

P6. The City shall only approve projects which comply with adopted noise standards, or meet the provisions of the California Environmental Quality Act.

P7. The City shall require noise reduction features to be used in the site planning process for new projects where current and/or future noise levels may be unacceptable. The focus of these efforts shall be site design techniques, so long as they do not conflict with the goals of the Community Character Element.

Techniques include:

1. Designing landscaped building setbacks to serve as a buffer between the noise source and receptor.
2. Placing noise-tolerant land uses such as parking lots, maintenance facilities, and utility areas between the noise source and receptor.
3. Orienting buildings to shield noise-sensitive outdoor spaces from a noise source.
4. Locating bedrooms or balconies on the sides of buildings facing away from noise sources.
5. Utilizing noise barriers (e.g., fences, walls, or landscaped berms) to reduce adverse noise levels in noise-sensitive outdoor activity areas.

Policy N-1.2

P1. The City shall minimize transportation noise through street and right-of-way design or route coordination including reducing speed limits or planting street trees along high-volume arterials.

[14] These policies are not a complete listing of all policies contained in the General Plan; those policies that would be most applicable to the proposed project are included here.

P2. The City shall require mitigation of noise impacts for new roadway projects, including roadway alignment and noise barriers.

P3. The City shall use pavement surfaces that reduce noise from roadways when paving or repaving whenever feasible.

P4. The City shall seek to reduce impacts from groundborne vibration associated with rail operations by requiring that vibration-sensitive buildings (e.g., residences) are sited at least 100 feet from the centerline of the railroad tracks whenever feasible. The development of vibration-sensitive buildings within 100 feet from the centerline of the rail-road tracks would require a study demonstrating that groundborne vibration issues associated with rail operations have been adequately addressed (i.e., through building siting, foundation design, and construction techniques).

Policy N-1.3

P1. The City shall require a noise monitoring plan to be prepared and submitted prior to starting all construction projects. The noise monitoring plan shall identify monitoring locations and frequency, instrumentation to be used, and appropriate noise control measures that will be incorporated.

P2. The City shall limit all construction in the vicinity of noise sensitive land uses, such as residences, hospitals, or senior centers, to daylight hours or 7:00 AM to 7:00 PM. In addition, the following construction noise control measures shall be included as requirements at construction sites to minimize construction noise impacts:

- Equip all internal combustion engine-driven equipment with intake and exhaust mufflers that are in good condition and appropriate for the equipment.
- Ensure that during construction, trucks and equipment are running only when necessary.
- Shield all construction equipment with temporary noise barriers to reduce construction-related noise impacts.
- Locate stationary noise-generating equipment as far as possible from sensitive receptors when sensitive receptors adjoin or are near a construction area.
- Utilize "quiet" air compressors and similar equipment, where available.

P3. The City shall evaluate new development projects for potential construction related noise impacts.

Project Impact Evaluation

Thresholds of Significance

The following thresholds of significance are based on the 2012 CEQA Guidelines Appendix G. For purposes of this EIR, implementation of the San Bernardino County Regional GHG Reduction Plan might have a significant adverse impact on noise if it would do any of the following:

- Result in the exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies

- Result in the exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels
- Result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project
- Result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project
- If located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, result in the exposure of people residing or working in the project area to excessive noise levels
- If within the vicinity of a private airstrip, result in the exposure of people residing or working in the project area to excessive noise levels

Analytic Method

The following analysis considers whether or not implementation of the Regional Reduction Plan within the City would impact noise-sensitive receptors.

Effects Not Found to Be Significant

Threshold	Would the project result in the exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

Implementation of the Regional Reduction Plan would reduce VMT, thus reducing the total vehicular noise in the City. The Regional Reduction Plan would not result in intensification of development around transit corridors beyond what has been previously identified in the Chino General Plan. Energy retrofits would likely reduce impacts from vehicular noise to occupants of the particular buildings, since increased insulation and double- or triple-paned windows would also act to buffer exterior noise levels. The location or extent of new renewable energy-generating facilities structures such as solar arrays and wind turbines that would potentially be developed under the Regional Reduction Plan and their locations, are not specifically identified in the Regional Reduction Plan. Solar arrays would not generate noise. Commercially based wind turbines range in size, from small single assemblies to the large turbines seen on vast wind farms. The range of noise generated by commercial wind turbines varies dramatically and can be as high as 105.4 dBA based on wind speed and blade pitch. The Noise Element of the Chino General Plan provides land use noise compatibility information and specifies maximum interior and exterior noise standards for various land use types. All development, including energy-generating facilities, would be required to be designed in such a way, e.g., through setbacks or shielding, that future noise levels do not exceed these standards. Therefore, installation of these energy-generating structures would likely be constructed away from sensitive uses, and would not result in any adverse noise impacts. Chino Noise Ordinance (Table 4.3.12-4) and the Chino General Plan Policies N-1.1, N-1.2, and N-1.3 would ensure that noise impacts to sensitive uses would be avoided or minimized. Each specific development project would undergo evaluation prior to project approval for consistency with the Chino General Plan policies and standards. Therefore, this impact would be ***less than significant***. No mitigation is required.

Threshold	Would the project result in the exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?

Construction vibration that could occur during energy-efficiency retrofit or installation of photovoltaic arrays or wind turbines would not be substantial, and if these activities were to occur on or near fragile buildings, all appropriate measures would be required per the Chino Noise Ordinance to reduce the effect of any groundborne vibration at the sensitive receptor. The Municipal Code further restricts construction activities that occur in close proximity to noise- or vibration-sensitive uses to specific hours of the day. Specific limits on the noise levels associated with construction and mechanical equipment that can be measured at sensitive uses are identified and subject to enforcement. Therefore, this impact would be ***less than significant***. No mitigation is required.

Threshold	Would the project result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?

Implementation of the Regional Reduction Plan would not result in a substantial increase in noise levels over what was analyzed in the Chino General Plan EIR (also see noise impact discussion above). Chino Noise Ordinance (Table 4.3.12-4) and the Chino General Plan Policies N-1.1, N-1.2, and N-1.3 would ensure that noise impacts to sensitive uses would be avoided or minimized. Each specific development project that implements the Regional Reduction Plan would undergo evaluation prior to project approval for consistency with the Chino General Plan policies and standards. Therefore, this impact would be ***less than significant***. No mitigation is required.

Threshold	Would the project result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?

Implementation of the Regional Reduction Plan would not result in a substantial temporary increase in noise levels over what was analyzed in the Chino General Plan EIR (also see noise impact discussion above). Chino Noise Ordinance (Table 4.3.12-4) and the Chino General Plan Policies N-1.1, N-1.2, and N-1.3 would ensure that construction noise impacts to sensitive uses would be avoided or minimized. Each specific development project that implements the Regional Reduction Plan would undergo evaluation prior to project approval for consistency with the Chino General Plan policies and standards. Therefore, this impact would be ***less than significant***. No mitigation is required.

Threshold	Would the project, if located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, result in the exposure of people residing or working in the project area to excessive noise levels?

The Regional Reduction Plan does not provide housing or workplaces that would bring people into the vicinity of the LAONT and Chino Airport Master Plan areas. Implementation of the Regional Reduction Plan would not result in a substantial increase in noise levels over what was analyzed in the Chino General Plan EIR (also see noise impact discussion above). Chino Noise Ordinance (Table 4.3.12-4) and the Chino General Plan Policies N-1.1, N-1.2, and N-1.3; and airport compatibility review by the City would ensure that noise impacts to sensitive uses within the vicinity of the airports would be avoided or

minimized. Each specific development project that implements the Regional Reduction Plan would undergo evaluation prior to project approval for consistency with the Chino General Plan policies and standards and airport compatibility. Therefore, this impact would be ***less than significant***. No mitigation is required.

Threshold	Would the project, if within the vicinity of a private airstrip, result in the exposure of people residing or working in the project area to excessive noise levels?

Chino Noise Ordinance (Table 4.3.12-4) and the Chino General Plan Policies N-1.1, N-1.2, and N-1.3; and airport compatibility review by the City would ensure that noise impacts to sensitive uses within the vicinity of the airports would be avoided or minimized. Each specific development project that implements the Regional Reduction Plan would undergo evaluation prior to project approval for consistency with the Chino General Plan policies and standards and airport compatibility. Therefore, this impact would be ***less than significant***. No mitigation is required.

Cumulative Impacts

Because the Regional Reduction Plan does not create significant noise and groundborne vibration impacts at a project level, implementation of the Regional Reduction Plan will not create impacts that are cumulatively considerable. Therefore, ***cumulative impacts are less than significant***.

References

California Department of Transportation (Caltrans). 1998. *Technical Noise Supplement*.

Chino, City of. 2010a. *City of Chino General Plan*, July.

———. 2010b. *City of Chino General Plan Draft Environmental Impact Report*, January.

———. *City of Chino Municipal Code*.

San Bernardino Associated Governments (SANBAG). 2012. *San Bernardino County Regional Greenhouse Gas Reduction Plan*. Draft. Prepared by ICF International, December.

4.3.13 Population/Housing

This section of the EIR analyzes the potential environmental effects on population/housing in the City of Chino from implementation of the Regional Reduction Plan. Data for this section were taken from the Chino General Plan (July 2010a) and associated environmental impact report (January 2010b), the United States Census Bureau 2010 Census, and the California Department of Finance Interim Population Projections for California and Its Counties (2012). Full reference-list entries for all cited materials are provided at the end of this section.

No comment letters addressing population/housing were received in response to the notice of preparation (NOP) circulated for the Regional Reduction Plan.

Environmental Setting

Existing Population and Housing

Chino spans roughly 30 square miles and the population according to the 2010 census was 77,983. Chino is currently the eighth largest city in San Bernardino County. Chino's demographic composition in 2010 was 56.4 percent White, 6.2 percent Black, 1 percent American Indian and Alaska Native, 10.5 percent Asian, 0.2 percent Native Hawaiian and Other Pacific Islander, 21.2 percent from other races, and 4.6 percent from two or more races. Persons of Hispanic or Latino origin were 53.8 percent.

Chino has a very high home ownership rate (72 percent compared to 57 percent average for the state) and also has a higher than average median household income ($71,659 versus $60,883 for the state) (U.S. Census Bureau 2011). Chino's population is expected to grow to 88,772 by 2020, an increase of 17 percent compared to 2008.

Table 4.3.13-1 (Socioeconomic Data for Chino) presents socioeconomic data for Chino, including population, housing (single-family and multifamily), and employment (agricultural, industrial, retail, and nonretail).

Table 4.3.13-1 Socioeconomic Data for Chino

Category	*2008*	*2020*
Population	75,596	88,772
Housing (du)	20,135	24,569
Single-Family (du)	14,356	17,426
Multifamily (du)	5,779	7,143
Employment (jobs)	48,495	53,470
Agricultural (jobs)	625	812
Industrial (jobs)	17,699	20,093
Retail Commercial (jobs)	12,547	13,067
Non-Retail Commercial (jobs)	17,624	19,498

du = dwelling unit

Regulatory Framework

Federal

United States Department of Housing and Urban Development (HUD)

The United States Department of Housing and Urban Development's (HUD's) mission is to create strong, sustainable, inclusive communities and quality affordable homes within the United States. HUD is working to strengthen the housing market to bolster the economy and protect consumers; meet the need for quality affordable rental homes: utilize housing as a platform for improving quality of life; build inclusive and sustainable communities free from discrimination; and transform the way HUD does business. HUD is responsible for enforcement of the Federal Fair Housing Act.

Federal Fair Housing Act

In April 1968, at the urging of President Lyndon B. Johnson, Congress passed the federal Fair Housing Act (codified at 42 USC 3601–3619, penalties for violation at 42 USC 3631), Title VIII of the Civil Rights Act of 1968. The primary purpose of the Fair Housing Law of 1968 is to protect the buyer/renter of a dwelling from seller/landlord discrimination. Its primary prohibition makes it unlawful to refuse to sell, rent to, or negotiate with any person because of that person's inclusion in a protected class. The goal is a unitary housing market in which a person's background (as opposed to financial resources) does not arbitrarily restrict access. Calls for open housing were issued early in the twentieth century, but it was not until after World War II that concerted efforts to achieve it were undertaken.

State

California Housing Element Law

California planning and zoning law requires each city and county to adopt a general plan for future growth (California Government Code Section 65300). This plan must include a housing element that identifies housing needs for all economic segments and provides opportunities for housing development to meet that need. At the state level, the Housing and Community Development Department estimates the relative share of California's projected population growth that would occur in each county in the state based on California Department of Finance (DOF) population projections and historical growth trends. Where there is a regional council of governments, the Housing and Community Development Department provides the regional housing need to the council. The council then assigns a share of the regional housing need to each of its cities and counties. The process of assigning shares provides cities and counties the opportunity to comment on the proposed allocations. The Housing and Community Development Department oversees the process to ensure that the council of governments distributes its share of the state's projected housing need.

The California housing element law, Government Code Sections 65580 to 65589, requires that each City and County identify and analyze existing and projected housing needs within its jurisdiction and prepare goals, policies, and programs to further the development, improvement, and preservation of housing for all economic segments of the community commensurate with local housing needs. State law recognizes the vital role local governments play in the supply and affordability of housing.

To that end, the Government Code requires that the housing element achieve legislative goals to identify adequate sites to facilitate and encourage the development, maintenance, and improvement of housing for households of all economic levels, including persons with disabilities; remove, as legally feasible and appropriate, governmental constraints to the production, maintenance, and improvement of housing for persons of all incomes including those with disabilities; assist in the development of adequate housing to meet the needs of low and moderate income households; conserve and improve the condition of housing and neighborhoods, including existing affordable housing; promote housing opportunities for all persons regardless of race, religion, sex, marital status, ancestry, national origin, color, familial status, or disability; and preserve for lower income households the publicly assisted multifamily housing developments in each community.

Senate Bill 375

Senate Bill 375 (SB 375), which establishes mechanisms for the development of regional targets for reducing passenger vehicle greenhouse gas emissions, was adopted by the State on September 30, 2008. These regional targets are met within each region through the drafting, adoption, and implementation of a sustainable community strategy (SCS). The SCS outlines the region's plan for combining transportation resources, such as roads and mass transit, with a realistic land use pattern, in order to meet a state target for reducing greenhouse gas emissions. The strategy must take into account the region's housing needs, transportation demands, and protection of resource and farm lands. The Metropolitan Planning Organization (MPO) for each region is responsible for drafting, adoption and implementation of the SCS for that region. SB 375 also modified Housing Element Law to achieve consistency between the land use pattern outlined in the SCS and Regional Housing Needs Assessment allocation. The legislation also substantially improved cities' and counties' accountability for carrying out their housing element plans. After submitting the SCS to the California Air Resources Board, the MPO allocates the Regional Housing Needs Assessment numbers to localities, based on the development pattern shown in the SCS and the existing allocation factors in housing element law. SB 375 extended the duration of housing elements from 5 to 8 years in order to align them with RTP deadlines. One housing element will be completed for every two RTPs. The bill also set the housing element due date at 18 months after the MPO estimates it will adopt the SCS. The MPO for this region is the Southern California Association of Governments (SCAG).

Regional

Southern California Association of Governments (SCAG)

SCAG is the designated Metropolitan Planning Organization for six Southern California counties (Los Angeles, Ventura, Orange, San Bernardino, Riverside, and Imperial), and is federally mandated to develop plans for transportation, growth management, hazardous waste management, and air quality. The Southern California Association of Governments (SCAG) regional plans cover San Bernardino County, which includes the City, and five other counties within Southern California.

Regional Transportation Plan

On May 8, 2012, the Regional Council of SCAG adopted the 2012 Regional Transportation Plan (RTP) and SCS for the SCAG area aimed at attaining the reduction targets of an 8 percent per capita reduction

in GHG emissions from passenger vehicles by the year 2020 and a 13 percent reduction by 2035. There are transportation-related reduction measures included in this Regional Reduction Plan that coordinate with efforts in SCAG's SCS. The 2012 RTP strives to provide a regional investment framework to address the region's transportation and related challenges, and looks to strategies that integrate land use and housing into transportation planning with an emphasis on transit and other non-vehicle transportation modes.

SCAG Compass Growth Visioning

The Compass Blueprint Growth Vision effort by SCAG is a response, supported by a regional consensus, to the land use and transportation challenges facing Southern California now and in the coming years. The Growth Vision is driven by four key principles:

- **Mobility**—Getting where we want to go
- **Livability**—Creating positive communities
- **Prosperity**—Long-term health for the region
- **Sustainability**—Preserving natural surroundings

The fundamental goal of the Compass Growth Visioning effort is to make the SCAG region a better place to live, work, and play for all residents regardless of race, ethnicity, or income class. Thus, decisions regarding growth, transportation, land use and economic development should be made to promote and sustain for future generations the region's mobility, livability and prosperity.

Local

Chino General Plan

The Chino General Plan provides a framework for the City's physical, economic, social, and environmental development and addressing all geographic areas in the City and includes all the required elements of a general plan. California law requires that other local government programs be consistent with the general plan. Policies pertinent to population and housing[15] include:

Policy HE-1.1 **P1.** Preserve and enhance the existing character of established neighborhoods through neighborhood improvements and housing rehabilitation, and promote healthy neighborhood lifestyles.

P2. Continue to provide home improvement assistance to low and moderate income households, seniors, and persons with disabilities.

P3. Preserve and improve the quality of the rental housing stock through acquisition and/or rehabilitation.

P4. Continue to use code enforcement to bring substandard units into compliance with City codes.

P5. Promote increased awareness among property owners and tenants of the importance of property maintenance to long-term housing quality.

[15] These policies are not a complete listing of all policies contained in the General Plan; those policies that would be most applicable to the proposed project are included here.

P6. Ensure new infill residential development does not significantly impinge on the privacy of neighboring homes.

Policy HE-2.1 **P1.** Provide financial and technical assistance, as well as regulatory incentives to assist in the new construction of affordable housing.

P2. Provide direct housing assistance to lower- and moderate-income households.

P3. Preserve existing affordable housing units in apartment complexes and mobile home parks.

Policy HE-2.2 **P1.** Encourage the use of green building techniques and other energy conservation devices.

Policy HE-2.3 **P1.** Encourage the use of universal design principles to expand housing opportunities for persons with disabilities.

Policy HE-3.1 **P1.** Encourage adequate provision of a wide range of housing by location, type, and price to meet the existing and future needs of residents.

P2. Promote infill development of quality affordable housing as a strategy to stabilize older neighborhoods.

P3. Support development at the maximum density allowed by General Plan 2025 along Riverside Drive and Central Avenue.

P4. Use similar setbacks, complementary building arrangements and patterns to ensure new multi-family and mixed-use developments are compatible in style and scale with surrounding residential neighborhoods.

P5. Ensure new residential development is adequately served with infrastructure and public facilities such as schools, sewage treatment, domestic water, public parks, fire control and police.

P6. Work with landowners along Riverside Drive and Central Avenue to consolidate parcels so they can create large enough spaces for new development of either mixed-use or multi-family residential buildings.

Policy HE-4.1 **P1.** Offer financial and/or regulatory incentives where feasible to offset or reduce the costs to development of affordable housing.

P2. Continue to improve the permit processing system to expedite development applications.

P3. Provide priority processing for residential and mixed-use developments that include an affordable housing component or serve persons with disabilities.

P4. Periodically review City regulations, ordinances, and development/planning fees to ensure that they not unduly constrain housing development.

Policy HE-5.1 **P1.** Ensure City policies and regulations comply with State and Federal fair housing laws.

P2. Provide sensitivity and fair housing training to City staff with interaction with residents on housing matters.

P3. Support outreach and education efforts to actively further fair housing practices and understanding in fair housing rights.

Measure M

In 1988, the citizens of Chino adopted Measure M as part of the General Plan and municipal code. Its purpose is to limit the expansion of multiple-family housing developments by preventing the City Council from rezoning nonresidential land to residential use. Measure M prevents the change of any land zoned non-residential to residential use and the rezoning of any land zoned residential to higher density residential use. Any such changes to the code must be made through a ballot initiative. Measure M applies to the zoning ordinance and map as they were on November 8, 1988.

Project Impact Evaluation

Thresholds of Significance

The following thresholds of significance are based on the 2012 CEQA Guidelines Appendix G. For purposes of this EIR, implementation of the San Bernardino County Regional GHG Reduction Plan might have a significant adverse impact on population/housing if it would do any of the following:

- Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)
- Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere
- Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere

Analytic Method

The programs and measures contained in the Regional Reduction Plan were compared to applicable housing policies to determine if any inconsistency exists.

Effects Not Found to Be Significant

Threshold	Would the project induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?

Implementation of the Regional Reduction Plan would not induce substantial population growth that could exceed local and regional growth projections either directly or indirectly. The project would not result in an increased demand for housing and contains no housing component. This impact would be ***less than significant***. No mitigation is required.

Threshold	Would the project displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?

The Regional Reduction Plan does not contain a housing component. Implementation of the Regional Reduction Plan would include energy efficiency retrofits of existing housing, which would improve the

living conditions within the retrofitted homes, but would not displace existing housing. There would be ***no impact***. Further analysis is not required.

Threshold	Would the project displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?

The Regional Reduction Plan does not contain a housing component. Implementation of the Regional Reduction Plan would not displace people. There would be ***no impact***. Further analysis is not required.

Cumulative Impacts

Because the Regional Reduction Plan does not create significant impacts to population and housing at a project level, implementation of the Regional Reduction Plan will not create impacts that are cumulatively considerable. Therefore, ***cumulative impacts would be less than significant***.

References

Chino, City of. 2010a. *City of Chino General Plan*, July.

———. 2010b. *City of Chino General Plan Draft Environmental Impact Report*, January.

San Bernardino Associated Governments (SANBAG). 2012. *San Bernardino County Regional Greenhouse Gas Reduction Plan*. Draft. Prepared by ICF International, December.

U.S. Census Bureau. 2011. 2010 Census. State & County QuickFacts. http://censtats.census.gov/qfd/states/.

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4.3.14 Public Services

This section of the EIR analyzes the potential environmental effects on public services (fire protection and emergency medical response services, police protection services, schools, and libraries) in the City of Chino from implementation of the Regional Reduction Plan. Park services are addressed in Section 4.3.15 (Recreation). Public and private utilities and service systems, including water, wastewater, and solid waste services and systems, are addressed in Section 4.3.17 (Utilities/Service Systems). Data for this section were taken from the Chino General Plan (July 2010a) and associated environmental impact report (January 2010b). Full reference-list entries for all cited materials are provided at the end of this section.

No comment letters addressing public services were received in response to the notice of preparation (NOP) circulated for the Regional Reduction Plan.

Environmental Setting

Fire Protection and Emergency Medical Response Services

Chino Valley Independent Fire District (CVIFD)

The CVIFD provides fire services to the City of Chino, the City of Chino Hills, and the surrounding unincorporated areas, including Chino's SOI. The district operates seven stations and a training classroom in addition to the Fire District Administrative Offices as is shown in Figure 4.3.14-1 (Public Facilities). The CVIFD currently serves a population of 172,922 people, not including the prison population. Even though the CVIFD does not count the prison population as part of its service population, it does respond to calls from the prisons an average of four times a month, mainly for medical needs. If needed, the CVIFD would also have the capacity to respond to structure fires at the prisons.

In 2008, the Fire District responded to 8,941 emergency incidents. The average 2008 response time to structure fires, including turn-out time, was eight minutes three seconds, plus an average dispatch time of one minute. The current ISO rating is Class 3, with the next scheduled rating in 2014. The concentration response goal of the CVIFD is to provide a full assignment response time of eight minutes 90 percent of the time to moderate risk.

California Emergency Medical Service Authority (EMSA)

The California Emergency Medical Service Authority (EMSA) is responsible for coordinating the planning, development, and implementation of 32 local Emergency Management Services systems throughout California. EMSA has established a standard response time not to exceed 5 minutes at least 90 percent of the time from receipt of the emergency call to on-scene-arrival for basic life support and CPR-capable first responder. Advanced life support response should not exceed 8 minutes at least 90 percent of the time, which is lower than National Fire Protection Association (NFPA) standards.

Police Protection Services

Chino Police Department

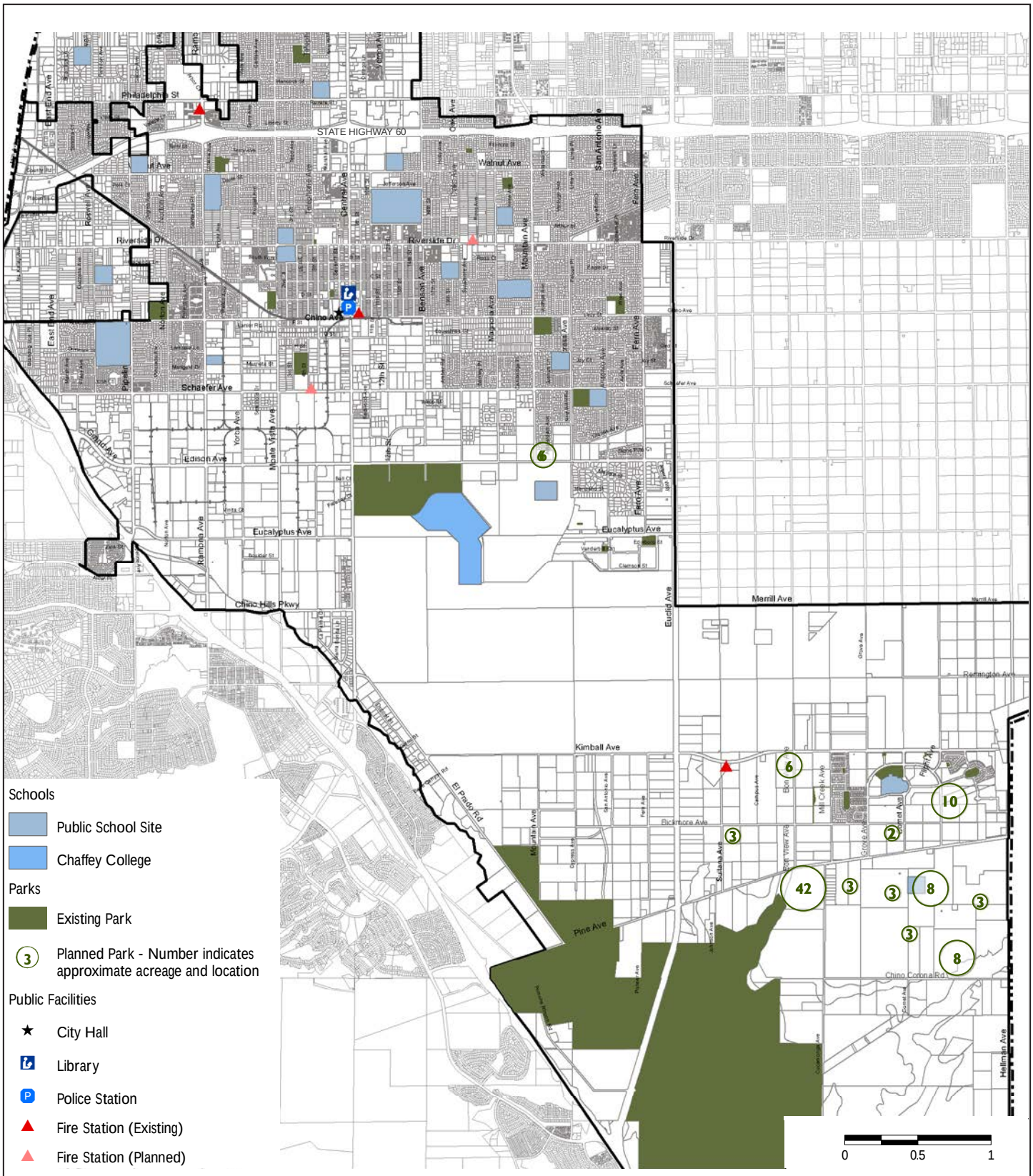
The Police Department's main office is located next door to City Hall, as shown in Figure 4.3.14-1. The Chino Police Department serves a community of 84,173 with 102 sworn officers, which translates to a ratio of 1.22 officers per 1,000 residents. The sworn officers include one Chief, two Captains, and six Lieutenants. The Department has several bureaus, including the Patrol, Traffic, Investigations, and Communications bureaus. There is also a Gang Unit, which acts under the supervision of the Investigations Bureau. In addition to the Gang Unit, the Police Department runs a K9 unit, a SWAT team, Crisis Negotiations team and a mobile field force. Patrol, Communications, the K9 unit, and the SWAT Team are under the Operations Division. Investigations and the Crime Prevention are under the Support Services Division. The Crime Prevention Unit hosts a series of volunteer programs such as Neighborhood Watch, the Citizen Academy, and Community Watch. The Chino Police Department prioritizes calls for service into the following categories:

- **Priority 1**—"In-progress" or "just occurred" calls that are of a life threatening nature
- **Priority 2**—"In-progress" or "just occurred" calls that are not of a life-threatening nature, but where an urgent response is needed
- **Priority 3**—Incidents reported after the fact where either a report or police contact is requested
- **Priority 4**—Calls such as parking violations, noise complaints, or humane problems
- **Priority 5**—"Officer initiated" calls such as traffic stops and pedestrian checks
- **Priority 6**—Handled strictly by a Dispatcher or Records Personnel such as court orders and private property impounds of vehicles

There were a total of 83,241 calls for service in 2008. There were 5,220 Priority 1 calls; 22,278 Priority 2 calls; 8,776 Priority 3 calls; 12,204 Priority 4 calls; 31,233 Priority 5 calls; and 3,530 Priority 6 calls.

In addition to its regular service area calls, the Police Department sometimes responds to calls from the CIM personnel. Such calls include requests to help with incidents related to escape, riot, and fire. Call records indicate that there were 75 calls to the CIM address in 2008, although some of these calls might be traffic collisions or vehicle burglaries in the CIM parking lot area. Along with providing policing services to the City of Chino, the Department also responds to service calls outside of Chino city limits. These services are part of Chino's mutual aid agreement with the following agencies: California Highway Patrol, California Institution for Men, California Institution for Women, California Youth Authority, City of Claremont, City of La Verne, City of Ontario, City of Pomona, City of Upland, City of Montclair, City of Rialto, City of Colton, City of San Bernardino, and San Bernardino County Sheriff's Department.

The Department also provides Emergency Evacuation Services in cooperation with other City agencies and the Chino Valley Fire District. The City of Chino is also a signer of the California Disaster and Civil Defense Master Mutual Aid Agreement.



Source: City of Chino General Plan Draft Environmental Impact Report, January 2010.

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Figure 4.3.14-1
Public Facilities

ATKINS

San Bernardino County Sheriff Department

The San Bernardino County Sheriff Department provides services to Chino's unincorporated areas in the Sphere of Influence. Throughout the County, the Sherriff's Department has approximately ten substations, with one substation in Chino Hills.

Schools

Local Schools

The Chino Valley Unified School District (CVUSD), encompassing 88 square miles, serves the City of Chino and includes the Cities of Chino and Chino Hills, part of the City of Ontario, plus unincorporated areas of San Bernardino County. The CVUSD has a total of 34 public schools, including 20 elementary schools, one K–8 school, five junior high schools, and five high schools. For the locations of schools serving Chino, please see Figure 4.3.14-1.

There are also six private schools in Chino. Chino residents are also served by Chaffey Community College, a community college based in Rancho Cucamonga that has a satellite center in Chino.

Libraries

San Bernardino County Library

There is one public library in Chino that is operated by the San Bernardino County Library, as shown on Figure 4.3.14-1. The San Bernardino County Library has a network of 30 branches in the unincorporated areas and 17 cities within the county. All branches are financed through dedicated property tax revenues. The Chino library was built in 1972 and renovated and expanded in 1997. The Chino Branch serves the entire population of Chino as well as the SOI with about 11,000 square feet of space.

Regulatory Framework

Federal

National Fire Protection Association Code 1710, Standard for the Organization and Deployment of Fire Suppression Operations, Emergency Medical Operations, and Special Operations to the Public by Career Fire Departments

The NFPA Code contains minimum requirements relating to the organization and deployment of fire suppression operations, emergency medical operations, and special operations to the public by substantially all career fire departments. The requirements address functions and objectives of fire department emergency service delivery, response capabilities, and resources. The code also contains general requirements for managing resources and systems, such as health and safety, incident management, training, communications, and pre-incident planning. The code addresses the strategic and system issues involving the organization, operation, and deployment of a fire department and does not address tactical operations at a specific emergency incident.

State

California Education Codes

California Senate Bill 50 modifies Government Code Section 65995 to limit the acquisition of development fees by local agencies to three levels set in Government Code Sections 65995, 65995.5, and 65995.7 and prohibits a local agencies from denying a legislative or adjudicative action under CEQA involving real estate development on the basis of the inadequacy of school facilities.

California Education Code Section 17620 gives school districts the authority to levy a fee, charge, dedication, or other requirement against any construction within the boundaries of the district, for the purpose of funding the construction or reconstruction of school facilities, subject to any limitations set forth in Government Code Title 7, Division 1, Chapter 4.9 (commencing with Section 65995).

California Education Code Sections 18900–18965, adopted in Chino through Section 1, Ordinance 103, allow the City of Chino to operate its library system separately from the county through a Board of Trustees appointed by the Chino City Council.

Regional

Chino Valley Fire District Master Plan 2009

In order to provide policy-oriented and long-range guidance over the next 20 years for the Chino Valley Independent Fire District (CVIFD), the Board of Directors called for the Chino Valley Fire District Master Plan 2009. The Master Plan 2009 is an expansion of the Fire District's Mission Statement, which states that the mission of the CVIFD is "to protect the lives and property of the community from the detrimental effects of fires, medical emergencies, and other hazardous conditions." The document also lists the location of future fire stations. Additionally, the Master Plan 2009 will guide the future growth of the Fire District, as well as provide the framework for operating and capital budgets.

Long Range Facilities Master Plan (LRFMP)

The LRFMP was begun in April 2008 by the Chino Valley Unified School District (CVUSD) to address the next 20 years of the District's facilities needs. The LRFMP gathered input from stakeholders, teachers, principals, District operation, maintenance and administrative staff, and community members. The Master Plan has the following four components: district standards, facility and site assessment, demographic analysis, and financial analysis. The demographic analysis states that the CVUSD's student population is projected to decline by 1,491 students by 2017, with the overall K–6 student population decreasing by 595 students; the 7th- and 8th-grade population decreasing by 132 students; and the 9th- and 12th-grade population decreasing by 765 students. At the buildout of the CVUSD, the total K–12 student population is projected to be 51,560 students. The buildout projection is an estimate of the student population when all vacant land is developed under current zoning policies. There is no specific time frame in which the buildout projection will occur.

San Bernardino County Library Facility Master Plan 2001-2021

The San Bernardino County Library Facility Master Plan 2001–2021, completed in 2001, included a needs survey of the each of the existing 29 library facilities. The report assesses each facility and provides

a funding plan for capital improvements. The Facility Master Plan proposed a major expansion of the branch libraries of the San Bernardino County Library system through the replacement of most of the present buildings and the construction of two new libraries, as well as the expansion and renovation of existing buildings. The Chino Library branch was targeted to be replaced under this plan. The Facility Master Plan proposed possible funding sources for the expansion and renovation of library facilities. Resources include, but are not limited to, funds from the Library Bond Act of 2000, property taxes, impact fees, and general bonds.

Local

Five-Year Strategic Plan 2004–2009

The City of Chino Police Department completed the Five-Year Strategic Plan to guide Chino in continuing to meet the needs of the community. The strategic plan began in 2003 when members of the Police Department identified issues and established specific goals to improve the department's efficiency and effectiveness. The plan focuses on five areas: maintaining community safety through teamwork and problem-solving partnerships; developing future leaders within the Police Department; meeting the service needs and desires of Chino; achieving unity through enhanced communication; and projecting and preparing for the growth of Chino and the Police Department.

To meet its goals, the Police Department shall develop a needs assessment for the community by holding "Community Engagement" meetings. The Police Department will also evaluate all existing crime prevention programs. The Department also plans to enhance relationships with other City Departments, such as the Community Services Department and the Public Works Department. The Police Department will also improve accessibility for the public by developing a more interactive Internet system and developing a media resource to update and inform the public. Finally, the Police Department will establish proper staffing levels within every Bureau to serve community needs, and study the total number of civilian and sworn positions needed in the Department in the next 5 years.

City of Chino Municipal Code

Chapter 3.40 covers the fee charged for new development within the City to pay for new public services such as fire and police protection services.

Chino General Plan

The Chino General Plan provides a framework for the City's physical, economic, social, and environmental development and addressing all geographic areas in the City and includes all the required elements of a general plan. California law requires that other local government programs be consistent with the general plan. Policies pertinent to public services[16] include:

Policy PFS-1.1 **P1.** The City shall continue to support the CVIFD to provide adequate fire protection services to the City of Chino.

[16] These policies are not a complete listing of all policies contained in the General Plan; those policies that would be most applicable to the proposed project are included here.

P2. The City shall work with the CVIFD to ensure that first response travel time is maintained and enhanced.

P3. The City shall work with the CVIFD to continue to increase the emergency response facilities and personnel necessary to meet residential and employment growth in the City.

P4. The City shall continue to support and implement the CVIFD's Master Plan.

P5. The City shall continue to charge a Fire Facility development impact fee at the time of building permits.

P6. The City shall require new development to incorporate adequate emergency water flow, fire resistant design and materials, and evacuation routes.

P7. The City shall require new development to be accessible to emergency vehicles and to not impede the ability of service providers to provide adequate emergency response.

Policy PFS-1.2

P1. The City shall ensure that new public and private roadways are adequate in terms of width, radius, and grade to accommodate CVIFD fire-fighting apparatus, while maintaining Chino's neighborhoods and small-town character.

P2. The City shall identify and mitigate fire hazards during the development review process.

P3. The City shall encourage the installation of interior emergency sprinkler systems, fire-safe building materials, early warning systems and sufficient water supply systems for fire suppression in new development or renovations.

P4. The City shall work with the CVIFD to plan fire station locations to maintain or enhance current response levels.

Policy PFS-2.1

P1. The City shall continue to maintain adequate police staffing, performance levels, and facilities to serve Chino's existing and future population.

P2. The City shall continue to participate in the California Disaster and Civil Defense Master Mutual Aid Agreement.

P3. The City of Chino shall continue to provide mutual aid with the following agencies:

- California Highway Patrol
- California Institution for Men
- California Institution for Women
- California Youth Authority
- City of Claremont
- City of La Verne
- City of Ontario
- City of Pomona
- City of Upland
- City of Montclair

- City of Rialto
- City of Colton
- City of San Bernardino
- San Bernardino County Sheriff's Department

Policy PFS-2.2 **P1.** The City shall emphasize the use of physical site planning as an effective means of preventing crime. Open spaces, landscaping, parking lots, parks, play areas, and other public spaces shall be designed with maximum possible visual and aural exposure to community residents.

P2. The City shall identify and mitigate law enforcement hazards during the development review process.

P3. The City shall continue to collect a Police Facility development impact fee from new development.

Policy PFS-2.3 **P1.** The Police Department shall provide neighborhood security and crime prevention information and training to neighborhood groups and homeowners' associations and work with the community to establish programs that promote mutual assistance and crime prevention techniques among residents.

P2. The City shall support community policing through such options as walking and biking police patrols that engage community residents.

P3. The City should rigorously enforce nuisance regulations to ensure that liquor stores and bars operate in a way that upholds community health, safety, and welfare.

Policy PFS-3.1 **P1.** The City shall coordinate with the CVUSD to ensure sufficient educational facilities for the existing and anticipated kindergarten through twelfth grade population, and shall work to ensure that school facilities serve new development and are available concurrent with needs to the extent allowed by State law.

P2. The City shall help the CVUSD implement the Facilities Master Plan.

P3. The City shall work with the CVUSD and youth organizations in promoting education opportunities through service projects for children in the community.

Policy PFS-3.2 **P1.** Where possible, school facilities should be co-located with community parks and recreation facilities to encourage the joint use of facilities.

P2. The City, in cooperation with the CVUSD, shall reserve land for purchase by the districts for the construction of new schools or the collection of school impact fees in accordance with State law.

P3. The City shall strive to expand joint use programs with the CVUSD to allow the use of school sites for recreational purposes.

P4. The City shall work with the CVUSD to site school facilities close to the center of the population served by the school.

P5. The City shall work with the CVUSD to site elementary schools away from major streets to avoid vehicular noise and traffic hazards.

P6. School sites should be designed with adequate on-site pick-up and drop-off areas and more than one access point to prevent school-related traffic congestion on the fronting and surrounding roadways.

Policy PFS-6.1 **P1.** Public facilities such as City offices, community centers, libraries, and public works satellite maintenance facilities shall be constructed as necessary to effectively serve the expansion of the City.

P2. The City shall ensure that new development pay its fair share of the costs of public buildings by collecting development impact fees, including the General Facilities Fee.

Policy PFS-6.2 **P1.** The City shall work with the San Bernardino County Library to expand library services and facilities in Chino to keep pace with new development, striving for a ratio of 0.5 square feet of library space per resident. Consideration shall be given to expanding the existing facility and building another branch library to better serve residents located in other areas of the City.

P2. The City shall ensure that new residential development pays the Library development impact fee for the cost of library expansion.

Project Impact Evaluation

Thresholds of Significance

The following thresholds of significance are based on the 2012 CEQA Guidelines Appendix G. For purposes of this EIR, implementation of the San Bernardino County Regional GHG Reduction Plan might have a significant adverse impact on public services if it would do any of the following:

- Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or in the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the following public services:
  - Fire protection and emergency medical response
  - Police protection
  - Schools
  - Libraries

Analytic Method

The programs and measures contained in the Regional Reduction Plan were compared to applicable public service policies to determine if any inconsistency exists.

Effects Not Found to Be Significant

Threshold	Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or in the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for fire protection and emergency medical response?

The Regional Reduction Plan would not increase resident population in the City. Demand for fire protection services is based on population. The nature of the project would not affect the demand for fire services. Therefore, there would be ***no impact***. Further analysis is not required.

Threshold	Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or in the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for police protection?

The Regional Reduction Plan would not increase resident population in the City. Demand for police protection services is based on population. The nature of the project would not affect the demand for police services. Therefore, there would be ***no impact***. Further analysis is not required.

Threshold	Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or in the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for schools?

The Regional Reduction Plan would not increase resident population in the City. Demand for schools and school services are based on population. The nature of the project would not affect the demand for schools or school services. Therefore, there would be ***no impact***. Further analysis is not required.

Threshold	Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or in the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for libraries?

The Regional Reduction Plan would not increase resident population in the City. Demand for public services is based on population. The nature of the project would not affect the demand for public services. Therefore, there would be ***no impact***. Further analysis is not required.

Cumulative Impacts

Because the Regional Reduction Plan does not create significant impacts to public services at a project level, implementation of the Regional Reduction Plan will not create impacts that are cumulatively considerable. Therefore, ***cumulative impacts would be less than significant***.

References

Chino, City of. 2010a. *City of Chino General Plan*, July.

———. 2010b. *City of Chino General Plan Draft Environmental Impact Report*, January.

San Bernardino Associated Governments (SANBAG). 2012. *San Bernardino County Regional Greenhouse Gas Reduction Plan*. Draft. Prepared by ICF International, December.

4.3.15 Recreation

This section of the EIR analyzes the potential environmental effects on recreation in the City of Chino from implementation of the Regional Reduction Plan. Data for this section were taken from the Chino General Plan (July 2010a) and associated environmental impact report (January 2010b). Full reference-list entries for all cited materials are provided at the end of this section.

One comment letter stating that the Regional Reduction Plan should include a comprehensive regional bicycle path master plan was received in response to the notice of preparation (NOP) circulated for the Regional Reduction Plan.

Environmental Setting

Parks and Recreational Facilities in the City of Chino

As of 2009, Chino has approximately 228 acres of formative, neighborhood, and regional parks, including mini parks greater than a 0.5 acre. Chino classifies its City-owned parks according to the following categories:

- **Mini-Park**—Mini parks are less than 2 acres and are typically designed for young children. They have a service radius of up to 0.25 mile.
- **Formative Parks**—Formative parks are between 2 and 5 acres, and have a service radius of up to 0.5 mile.
- **Neighborhood Park**—Neighborhood parks range from 5 to 20 acres and have a service radius of up to 1 mile. Locations adjacent to elementary schools are desirable, and neighborhood parks are intended to serve recreational needs of local children.
- **Community Park**—Community parks are between 20 and 50 acres in size and have a service radius of up to 3 miles. Community parks are intended to provide for both local recreational activities and communitywide activities.
- **Regional Park**—Regional parks are at least 50 acres, serving a large population within a one-hour drive.
- **Parkways and Recreational Trails**—Parkways and recreational trails provide space for walking, running, horseback riding, and cycling.
- **Special Use Facilities**—These facilities can include community centers that provide a variety of programmed recreation and education activities, and public pools.

In addition to facilities formally recognized as parks, Chino residents have access to school playgrounds and ballfields outside of school hours by permit only. The current parks and recreational facilities in Chino are heavily used for a wide variety of recreational activities. Figure 4.3.15-1 (Existing and Planned Parks) shows the locations of existing and future City parks. There are three regional parks, Prado Regional Park, Chino Hills State Park, and Chino, which do not count toward Chino's park acreage because they are not operated by the City.

As of 2009, several additional parks are planned as part of The Preserve and College Park Specific Plan areas. The planned parks in these areas are designed to provide neighborhood access within a maximum 10-minute walking distance. The Preserve, including Edgewater, will have approximately 107.8 acres of parkland at buildout and will include 21 parks: one 42-acre community park, seven neighborhood parks ranging between 5 and 10 acres in size, eight formative parks ranging between 2 and 4 acres in size, and several mini parks smaller than 2 acres in size. The Preserve will also include an urban plaza. One neighborhood park, two formative parks, and five mini parks have already been completed, with the remainder yet to be constructed (Chino 2010a). The College Park area will have 9.2 acres of parkland at buildout and consists of one neighborhood park, one formative park and eight mini parks. Of these, the formative park and two mini parks have been completed.

There are also trails and corridors that contribute to open space in Chino. Two Southern California Edison easements, in East Chino and in The Preserve, serve as open space corridors in Chino. In addition, there are open space areas along portions of Chino Creek, Cucamonga/Mill Creek, Cypress Channel, and Magnolia Channel.

The City also offers a variety of recreation programming for residents. These services are administered by the City's Community Services Department. The City currently provides a comprehensive range of recreation, educational, and social service programs to all of its residents, from infants to seniors. These community facilities include Carolyn Owens Community Center, Community Building, Senior Center, Neighborhood Activity Center, the Chino Experience, Liberty Park Community Center, Monte Vista Park Recreational Center, Chaffey College Chino Community Center, Preserve Community Center, and Chino Youth Museum (Chino 2010a).

Regulatory Framework

A variety of National Forests, state recreational areas, regional parks, and local recreational opportunities exist in the region. The following section describes the regulatory framework and current recreational opportunities in and near the City of Chino.

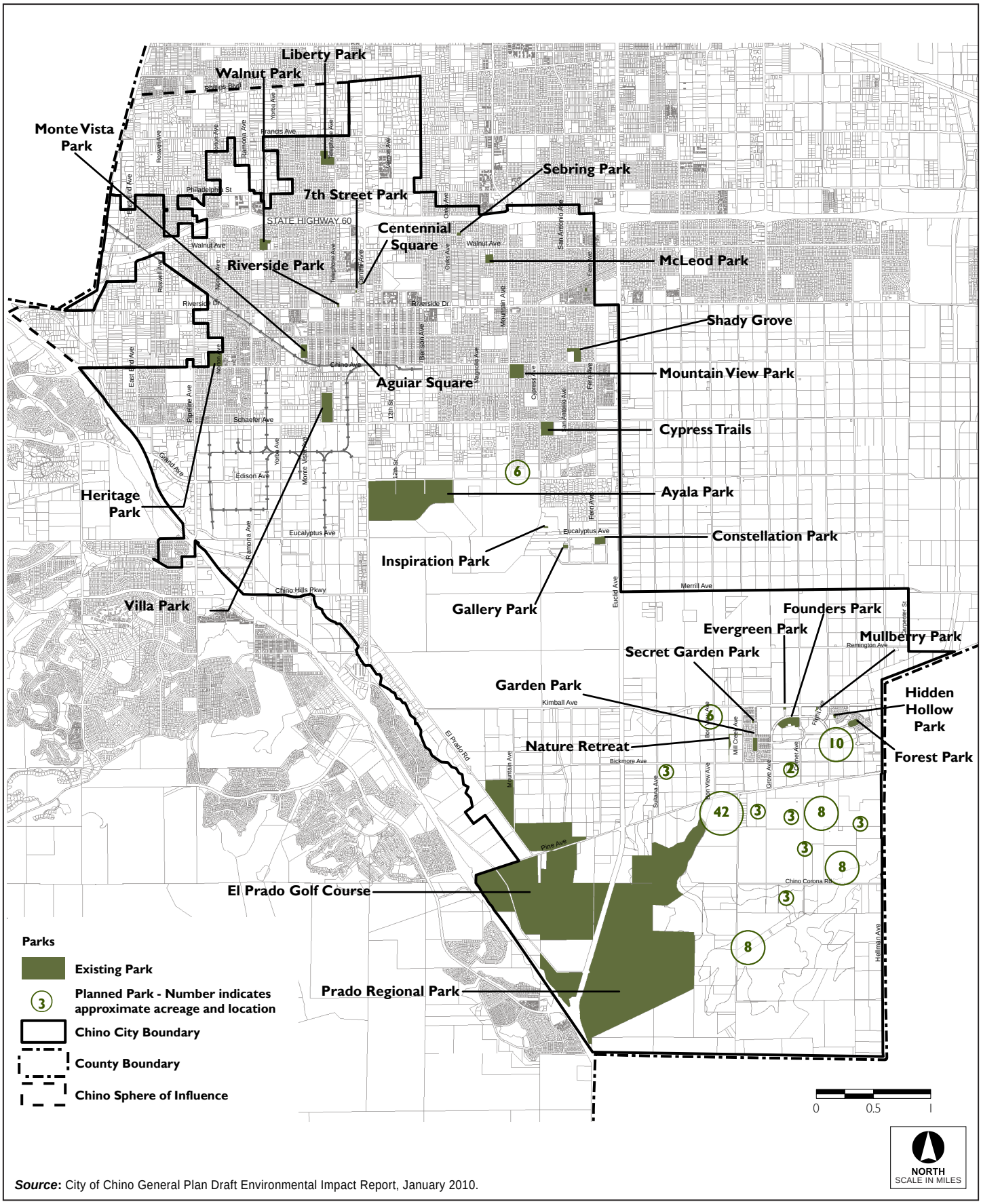
Federal

United States National Park Service

The National Park Service was founded in 1916 to maintain and care for the 400 national parks within the United States. The closest National Park is over 100 miles from the City of Chino.

United States Forest Service and National Forests

Established in 1905, the Forest Service is an agency of the U.S. Department of Agriculture. The Forest Service manages public lands in national forests and grasslands. The San Bernardino National Forest is the nearest maintained national recreational area within the region.



Source: City of Chino General Plan Draft Environmental Impact Report, January 2010.

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Figure 4.3.15-1

Existing and Planned Parks

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San Bernardino National Forest

San Bernardino National Forest (SBNF) is northeast of Chino. It is situated in the San Gabriel, San Bernardino, San Jacinto, and Santa Rosa mountains and includes the vacation resort areas of Big Bear Lake, Lake Arrowhead, Mount San Jacinto, and the San Gorgonio Wilderness. The US Forest Service manages the 665,753-acre SBNF, 456,928 acres of which are in San Bernardino County. The SBNF consists of 500 miles of trails. Aside from camping, SBNF provides outdoor activities like hunting, fishing, recreational shooting, hiking, backpacking, mountain biking, horseback riding, and boating in the warmer months; and cross-country skiing, snowboarding, and snowmobiling in the winter months. Also associated with SBNF activities are volunteer organizations and trails associations.

State

Quimby Act

The Quimby Act (California Government Code 66477) is state legislation that requires the dedication of land and/or fees for park and recreational purposes as a condition of approval of tentative map or parcel map. The Quimby Act establishes procedures that can be used by local jurisdictions to provide neighborhood and community parks and recreational facilities and services for new residential subdivisions.

California Department of Park and Recreation and State Parks

California Department of Parks and Recreation maintains 280 state park units throughout California. State Parks within the region includes the Chino Hills and Silverwood Lake State Recreational Areas.

Chino Hills State Recreation Area

Chino Hills State Recreation Area is less than 10 miles of the southwest edged of Chino, off of State Route 91 (SR-91) to Highway 71 North. This state park encompasses approximately 12,452 acres and accommodates such activities as hiking, biking, horseback riding, and camping.

Silverwood Lake State Recreation Area

Silverwood Lake State Recreation Area is adjacent to the SBNF, along Highway 138, approximately 40 miles northeast of Chino. Silverwood Lake was formed by the 249-foot Cedar Springs Dam, and at 3,350 feet, it is the highest reservoir in the State Water Project. Silverwood Lake State Recreation Area is approximately 2,000 acres, and includes a stretch of the Pacific Crest Trail, which is a national scenic trail spanning 2,650 miles from Mexico to Canada. Activities at Silverwood Lake State Recreation Area include camping, hiking trails, swimming, boating, waterskiing, and fishing. Silverwood Lake State Recreation Area is managed by the California State Parks Department.

Regional

San Bernardino County Regional Parks Division

The San Bernardino County Regional Parks is administered by the San Bernardino County Regional Parks Division and the San Bernardino County Regional Parks Advisory Commission. The seven-member commission provides a citizen body responsible to communities and the people of San

Bernardino County to recommend policy regarding the development and operation of a well-balanced system of Regional Parks. The Regional Parks Commission oversees the establishment and administration of appropriate policies and informs the County Board of Supervisors of activities related to the Regional Parks Department. Regional Parks in the vicinity of the City of Chino include the Prado Regional Park and Cucamonga-Guasti Regional Park. The Santa Ana River Trail is a multi-agency administered regional recreational trail system. San Bernardino County Regional Parks Division is responsible for the 18 miles of trail running through the County between the SBNF boundary and the Riverside and Orange County boundary lines.

Prado Regional Park

Prado Regional Park is on Highway 83, south of Highway 60 and north of Highway 91 in Chino. The regional park encompasses approximately 2,000 acres and includes such activities as fishing, picnics, horseback riding, camping, golf, hiking, and an Olympic shooting range. Facilities include a dog training facility, showers, restrooms, public phones, groceries, grills and fire rings, picnic tables and shelters, and a 1.6-acre play area facility.

Cucamonga-Guasti Regional Park

The Cucamonga-Guasti Park is a day-use park near the Ontario Convention Center, Ontario Mills, and Los Angeles/Ontario International Airport (LAONT). Cucamonga-Guasti Park consists of approximately of 180 acres and offers two lakes, a swim complex, water slide, splash pool, vineyards, and hiking trails. The park offers activities such as swimming, fishing, hiking, mountain biking, boating, volleyball, picnicking, and various other activities.

Santa Ana River Trail

The Santa Ana River Trail is a developing corridor trail system south and east of the City of Chino within the Santa Ana River Wash. This regional trail is 110 miles long, extending from the Heart Bar Ranch area in the San Bernardino National Forest to the Pacific Ocean. The trail crosses 33 miles of the SBNF and covers 18 miles within San Bernardino County. The San Bernardino County Regional Parks Division is currently improving 11 miles of the trail in three phases: Phase I consists of the trail portions from the Riverside/San Bernardino County line to La Cadena Drive for 3.3 miles, Phase II consists of the trail portions from La Cadena Drive to Waterman Avenue for 3.5 miles, and Phase III consists of the trail portions from Waterman Avenue to Alabama Street for 4.5 miles.

Local

City of Chino Municipal Code

Chino Municipal Code Chapter 18.01 (Park Land Dedication, In-lieu Fees, and Park Development Fees) implements the provision of the Quimby Act. This chapter established Chino's park dedication standard as 3 acres per 1,000 people for all new development projects.

Chino Creek Integrated Plan

The 2006 Chino Creek Integrated Plan prepared for the Inland Empire Utilities Agency and the Orange County Water District offers numerous recommendations for new trails, transportation greenbelts, and

open space amenities to be funded as part of the improvement of water quality, flood control and habitat preservation in the Chino Creek Watershed and Prado Basin area.

San Bernardino County Plan of Open Space and Trails

The 1991 Open Space and Trails Plan lists several trails that connect Chino to parks throughout the County, such as the Cucamonga and San Antonio Creeks Trails and the Chino Hills Connector.

Chino General Plan

The Parks and Recreation Element of the Chino General Plan includes the following policies related to recreational[17] facilities:

Policy PR-1.1 P1 The City shall achieve and maintain a standard of 3 acres of parks per 1,000 Chino residents. The following categories of parks shall be included in the park acreage totals: formative, neighborhood, and community parks, mini parks that are over one-half acre in size and that contain sufficient amenities, and regional parks under the City's jurisdiction.

Policy PR-1.1 P2 The City shall allow new infill development projects to provide mini parks in infill areas to help meet the park standard, as long as they are over ½-acre and include sufficient amenities.

Policy PR-1.1 P3 The City may permit homeowners' associations to manage mini parks, formative parks and neighborhood parks, so long as parks are publicly accessible and maintained to a level equivalent to City cleanliness, landscaping, and safety standards.

Policy PR-1.1 P4 In order to encourage active, healthy lifestyles, the City will work toward ensuring that all residential areas are within ½-mile walking distance of a public park.

Policy PR-1.1 P5 The City shall prioritize the development of new parks in underserved areas and low-income neighborhoods.

Policy PR-1.1 P6 The City shall ensure that the development of parks and recreational facilities and services keeps pace with development and growth in Chino.

Policy PR-1.1 P7 The City shall create pedestrian, bicycle and/or equestrian trail links between parks where possible, in order to increase the accessibility of parks to area residents.

Policy PR-1.2 P1 The City shall require new development to dedicate land or pay in-lieu fees to maintain park standards.

Policy PR-1.2 P2 The City shall support efforts to sustain a long-term funding source for parks acquisition, development, and maintenance in Chino.

Policy PR-2.1 P1 The City shall support and expand public activities and resources that enhance the City's "small-town feel" such as cultural events, street fairs, parades, the farmers market, outdoor concerts, after-school programs, and community centers.

[17] These policies are not a complete listing of all policies contained in the General Plan; those policies that would be most applicable to the proposed project are included here.

Policy PR-2.1 P2 The City shall provide recreational programs and activities that are accessible and appealing to residents of all age groups, abilities, and income levels.

Policy PR-2.1 P3 The City shall evaluate recreational programming, parks and facilities on an on-going basis to ensure that the City's programs and facilities meet the needs of residents.

Policy PR-3.1 P1 The City shall encourage public and private providers of recreational activities to collaborate with Healthy Chino, the County of San Bernardino Public Health Department, and other public health agencies to design healthy recreation programs that incorporate physical activity and healthy eating.

Policy PR-3.1 P2 The City shall develop park designs to ensure they provide a combination of both active and passive recreational opportunities for all age levels, including walking, jogging, organized team sports, and informal group sports.

Project Impact Evaluation

Thresholds of Significance

The following thresholds of significance are based on the 2012 CEQA Guidelines Appendix G. For purposes of this EIR, implementation of the San Bernardino County Regional GHG Reduction Plan might have a significant adverse impact on recreation if it would do any of the following:

- 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
- Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment

Analytic Method

The programs and measures contained in the Regional Reduction Plan were reviewed for potential impacts to parks, recreational facilities in and near the City of Chino.

Effects Not Found to Be Significant

Threshold	Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?

The Regional Reduction Plan would not increase resident population in the City. Demand for parks and recreational facilities are based on population. The nature of the project would not affect the demand for recreational facilities. Therefore, there would be ***no impact***. Further analysis is not required.

Threshold	Would the project include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?

The Regional Reduction Plan does not include recreational facilities. Therefore, there would be ***no impact***. Further analysis is not required.

Cumulative Impacts

Because the Regional Reduction Plan does not create significant impacts to recreation at a project level, implementation of the Regional Reduction Plan will not create impacts that are cumulatively considerable. Therefore, ***cumulative impacts would be less than significant***.

References

Chino, City of. 2010a. *City of Chino General Plan*, July.

———. 2010b. *City of Chino General Plan Draft Environmental Impact Report*, January.

———. n.d. *City of Chino Municipal Code*.

San Bernardino Associated Governments (SANBAG). 2012. *San Bernardino County Regional Greenhouse Gas Reduction Plan*. Draft. Prepared by ICF International, December.

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4.3.16 Transportation/Traffic

This section of the EIR analyzes the potential environmental effects on transportation/traffic in the City of Chino from implementation of the Regional Reduction Plan. Data for this section were taken from Chino General Plan (July 2010a) and associated environmental impact report (January 2010b), the Southern California Association of Governments (SCAG) Regional Transportation Plan and SCS (2012), the SCAG Regional Comprehensive Plan (2009), the San Bernardino Associated Governments (SANBAG) Congestion Management Program (2012), the SANBAG Passenger Rail Short-Range Transit Plan (2007), and the San Bernardino County Non-Motorized Transportation Plan (2011). Full reference-list entries for all cited materials are provided at the end of this section.

One comment letter stating that the Regional Reduction Plan should include a comprehensive regional bicycle path master plan was received in response to the notice of preparation (NOP) circulated for the Regional Reduction Plan.

Environmental Setting

Existing Transportation Network

The City of Chino circulation system includes two freeways, an airport, one freight rail line operated by the Union Pacific (UP) and a system of arterial and local streets.

Roadway Network

The City of Chino has the following roadway classifications for local roadways within the City:

- **Freeway**—A freeway is an access-controlled, divided highway, with two or more lanes in each direction. Freeways are designed for high speed inter-city travel.
- **Expressway**—An expressway is a divided high-flow arterial street with three or more lanes in each direction. Typical right-of-way width is approximately 206 feet. Expressways may be separated by a median and may have a bicycle lane/trail and/or an equestrian trail.
- **Major Arterial**—A major arterial is a divided roadway with 6 to 8 through lanes. Major arterials serve major activity centers within the City, carry the majority of intra-city trips, and provide access to high volume corridors, such as freeways. Public transportation is usually more prominent along the major arterial system. Major arterials may be divided by a median and may have a bicycle lane/trail and/or an equestrian trail. Typical right-of-way width ranges between 120 and 134 feet, and curb-to-curb width ranges from 100 to 114 feet.
- **Primary Arterial**—A primary arterial is a roadway with four through lanes. Primary arterials may be separated by a median, and may have a bicycle lane/trail and/or an equestrian trial. The typical right-of-way width is 98 feet, and the curb-to-curb width range is 74 feet. Parking is prohibited on primary arterial roadways.
- **Secondary Arterial**—A secondary arterial is an undivided roadway with four through lanes. Typical right-of-way width is approximately 88 feet, and curb-to-curb width is 64 feet. Secondary arterials may have a bicycle lane/trail and/or an equestrian trail. Parking is allowed on secondary arterial roadways.

- **Collector**—A collector street is a two-lane undivided roadway with the primary function of collecting and distributing local traffic. Typical right-of-way width ranges between 60 and 88 feet. Collector streets may be further broken down into three subcategories according to adjacent land use: Urban Residential Collector, Rural Collector, and Urban Industrial Collector.
- **Local Street**—A local street is a two-lane undivided roadway. Local streets are primarily used to gain access to and from adjacent properties. The minimum right-of-way width for local streets is 60 feet.

Figure 4.3.16-1 (Functional Roadway Classification Plan) shows the various roadway classifications.

Trucks

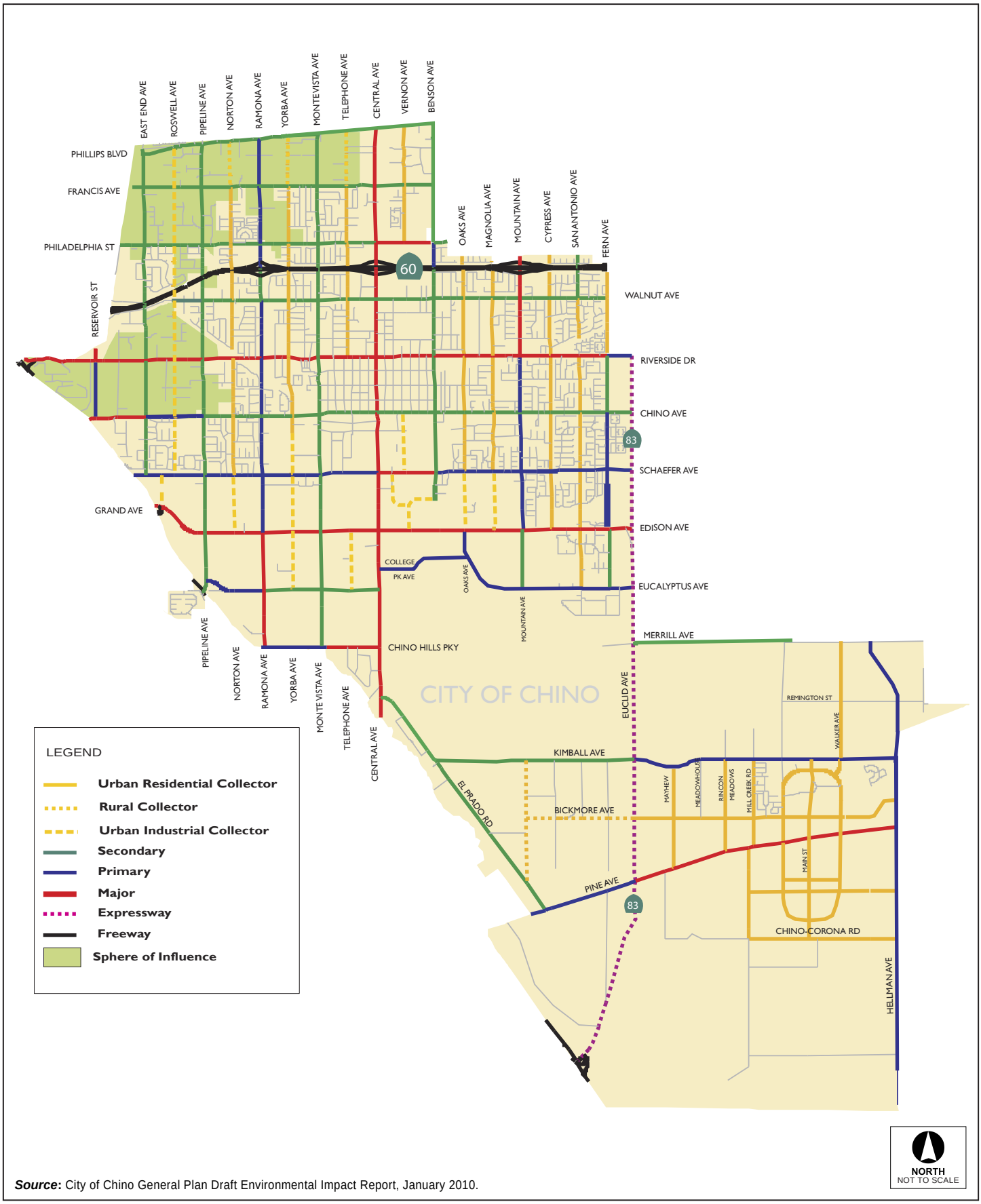
The City has designated certain roadways as truck routes within the City. The City's truck route system includes the following categories of routes: City of Chino Truck Routes, Large (38/40) Truck Routes, State Truck Routes. Chino truck routes are located primarily on east/west-oriented roadways, including Riverside Drive, portions of Schaefer Avenue, Edison Avenue, Eucalyptus Avenue, Chino Hills Parkway, Merrill Avenue, Pine Avenue, Bickmore Avenue, El Prado Road, and Kimball Avenue. Several of those routes provide a continuous truck route connection from State Route 71 (SR-71) to Euclid Avenue through the City of Chino. All of the north/south oriented truck routes are discontinuous and do not extend the length of the City. This is intentional because the City does not desire to provide "cut-through" routes for trucks to and from SR-60, and two sufficient north/south routes are already provided by Euclid Avenue and SR-71. The north/south discontinuous routes include portions of East End Avenue, Pipeline Avenue, Ramona Avenue, Monte Vista Avenue, Central Avenue, and Mountain Avenue, Mayhew, Walker Avenue, Hellman Avenue, and Carpenter Avenue.

Rail Lines and Crossings

Union Pacific (UP) operates one rail line in the City of Chino. The UP rail line enters the northwest portion of the City, between Philadelphia Street and Walnut Avenue, and extends diagonally to its eastern terminus at Benson Avenue and Chino Avenue. Several shorter lines branch from the main UP line in the City of Chino, and extend throughout a small portion of the City bounded by Pipeline Avenue, Chino Avenue, Central Avenue and Eucalyptus Avenue. The UP rail line intersects 24 streets in the City of Chino. Various mechanisms are used to warn oncoming traffic of a train's presence, including flashing lights, gates, cross bucks, and stop signs. A maximum of two freight trains travel through each rail line/roadway intersection on a daily basis.

Transit

Metrolink is the regional commuter rail service providing fast and reliable service in the region. While there are no Metrolink stations in Chino, neighboring cities do have stations. The closest Metrolink line serving Chino is the Riverside line located north of Chino and stops in East Ontario and in downtown Pomona. The line connects Riverside to Los Angeles at Union Station. The two stations are approximately 7 to 10 miles from the Chino Transit Center.



Source: City of Chino General Plan Draft Environmental Impact Report, January 2010.

Figure 4.3.16-1

Functional Roadway Classification Plan

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Amtrak provides intercity passenger train service throughout the United States. While there are no Amtrak stations in Chino, the Ontario Amtrak station and Pomona Amtrak station are approximately 4 and 5 miles north of Chino. The Pomona station is used by Metrolink commuter trains, Foothill Transit Buses, and Amtrak's Sunset Limited, which stops in Pomona on Sun days, Tuesdays and Fridays. The Sunset Limited operates three times a week on a schedule connecting Los Angeles to Arizona, New Mexico, Texas, Louisiana, Mississippi, Alabama, and Florida. The Ontario Amtrak Station is used by Amtrak California's daily Motorcoach service between the San Joaquin trains at Bakersfield and Calexico, with intermediate stops at Claremont, San Bernardino, Palm Springs, and Thousand Palms, Indio, Brawley, and El Centro. The stations are fully wheelchair accessible and have free short-term parking. Fares vary according to distance traveled.

Bus Transit

Omnitrans Transit Agency provides local transit service throughout San Bernardino County, including the City of Chino. Omnitrans service in Chino is provided on four fixed routes: the 63, 65, 68, and 83. All routes meet at the Chino Transit Center and connect Chino to neighboring communities including Montclair, Ontario, Upland, Pomona, and Chino Hills. Current transit service is sparse in the northwest and rapidly expanding southeast quadrants of the City. Most Chino residents live within a half-mile of an existing Omnitrans bus stop, although residents in the northwest and southeast corners of the City are not within typical walking distance of a bus stop. Omnitrans also operates a demand-response transportation system known as OmniLink, which provides curb-to-curb service for the general public.

Foothill Transit is a fixed route transit operator in Chino. Foothill Transit serves the San Gabriel and Pomona Valleys with 35 fixed-route local, express, and rail-feeder lines. Chino is located in the far east side of Foothill Transit's service area. Only one Foothill Transit route currently serves the City. Route 497 is a commuter express line operating between Chino and Los Angeles. The bus line serves both the Chino Transit Center and the Chino Park & Ride lot, located at Chino Avenue and SR-71. Route 497 provides the only direct link to Los Angeles from Chino and operates only during the AM and PM peak periods.

The Orange County Transportation Authority (OCTA) is the public sector transportation planning body and transit service provider for Orange County, California. OCTA operates approximately 80 lines which encompass every city in Orange County, along with the Los Angeles County communities of Lakewood, La Mirada, Cerritos, and Long Beach, and with express service to the San Bernardino County cities of Chino Hills and Chino. OCTA Route 758 provides Intercounty Express Bus service for commuters traveling from Chino, Chino Hills, Diamond Bar, and Brea to Irvine Spectrum. Route 758 originates at the Chino Transit Center and has limited stops.

Chino Airport

Chino Airport (CNO), formerly known as Cal Aero Field, is a county-owned public-use airport located east of Euclid Avenue (SR-83), between Merrill Avenue and Kimball Avenue. Chino Airport has three runways and is classified as a general aviation reliever airport due to its proximity to Ontario Airport (ONT) and John Wayne Airport (SNA). The Chino Airport serves private, business, and corporate tenants and customers from the Inland Empire.

Planned Bus Rapid Transit (BRT) Routes

Omnitrans is developing bus rapid transit (BRT) routes within the region. The first route, the sbX (San Bernardino Express) that will traverse the San Bernardino Valley from north to south is under construction. The 15.7-mile sbX corridor spans between northern San Bernardino and Loma Linda. It will include sixteen art-inspired stations at key university, government, business, entertainment and medical centers as well as four park-and-ride facilities. Upgrades of existing bus transit stations are needed to accommodate the new 60-foot-long, low-emission BRT buses. Omnitrans has several BRT routes planned within the nearby Cities of Ontario and Chino Hills.

Regulatory Framework

Federal

United States Department of Transportation

The United States Department of Transportation (USDOT) oversees federal highway, air, railroad, and maritime and other transportation administration functions.

The Federal Highway Administration (FHWA) is an agency within the USDOT that supports State and local governments in the design, construction, and maintenance of the Nation's highway system (Federal Aid Highway Program) and various federally and tribal owned lands (Federal Lands Highway Program).

The Federal Transit Administration (FTA) is an agency within the USDOT that provides financial and technical assistance to local public transit systems. The FTA is headed by an Administrator who is appointed by the President of the United States and functions through a Washington, D.C. headquarters office and ten regional offices which assist local transit agencies throughout the United States.

The Federal Aviation Administration (FAA) is an agency within the USDOT that provides oversight and assistance to State and local airport authorities in the safety and improvements at airports throughout the United States. The FAA also provides technical assistance to airport operators, in conjunction with other local, state, and federal authorities, to prepare and execute appropriate airport compatibility planning and implementation programs.

State

California Department of Transportation

The California Department of Transportation (Caltrans) manages the State Highway system and freeway lanes, provides inter-city rail services, permits of public-use airports and special-use hospital heliports, and works with local agencies. Caltrans carries out its mission of improving mobility across California with six primary programs: Aeronautics, Highway Transportation, Mass Transportation, Transportation Planning, Administration and the Equipment Service Center.

California Air Resources Board

The California Air Resources Board, a part of the California EPA (Cal/EPA) is responsible for the coordination and administration of both federal and state air pollution control programs within

California. With respect to transportation the California Air Resources Board reviews and approves Metropolitan Planning Organizations (MPOs) implementation of Senate Bill 375 (SB 375) within each region of California.

Senate Bill 375

Senate Bill 375 (SB 375), which establishes mechanisms for the development of regional targets for reducing passenger vehicle greenhouse gas emissions, was adopted by the State on September 30, 2008. On September 23, 2010, California ARB adopted the vehicular greenhouse gas emissions reduction targets that had been developed in consultation with the metropolitan planning organizations (MPOs); the targets require a 7 to 8 percent reduction by 2020 and between 13 to 16 percent reduction by 2035 for each MPO. SB 375 recognizes the importance of achieving significant greenhouse gas reductions by working with cities and counties to change land use patterns and improve transportation alternatives. Through the SB 375 process, MPOs will work with local jurisdictions in the development of sustainable communities strategies (SCS) designed to integrate development patterns and the transportation network in a way that reduces greenhouse gas emissions while meeting housing needs and other regional planning objectives. MPOs will prepare their first SCS according to their respective regional transportation plan (RTP) update schedule.

Regional

Southern California Association of Governments (SCAG)

SCAG is the designated Metropolitan Planning Organization for six Southern California counties (Los Angeles, Ventura, Orange, San Bernardino, Riverside, and Imperial), and is federally mandated to develop plans for transportation, growth management, hazardous waste management, and air quality. The Southern California Association of Governments (SCAG) regional plans cover San Bernardino County, which includes the City, and five other counties within Southern California.

Regional Comprehensive Plan

The Regional Comprehensive Plan (RCP) is a problem-solving guidance document that responds to SCAG's Regional Council directive in the 2002 Strategic Plan to develop a holistic, strategic plan for defining and solving the region's interrelated housing, traffic, water, air quality, and other regional challenges. The RCP is a voluntary framework that links broad principles to an action plan that moves the region towards balanced goals. The RCP's guiding principles include:

- Improve mobility for all residents. Improve the efficiency of the transportation system by strategically adding new travel choices to enhance system connectivity in concert with land use decisions and environmental objectives.
- Foster livability in all communities.
- Foster safe, healthy, walkable communities with diverse services, strong civic participation, affordable housing, and equal distribution of environmental benefits.
- Enable prosperity for all people. Promote economic vitality and new economies by providing housing, education, and job training opportunities for all people.
- Promote sustainability for future generations.

- Promote a region where quality of life and economic prosperity for future generations are supported by the sustainable use of natural resources.

Further, the RCP seeks to successfully integrate land and transportation planning and achieve land use and housing sustainability by implementing Compass Blueprint and 2 percent Strategy:

- Focusing growth in existing and emerging centers and along major transportation corridors
- Creating significant areas of mixed-use development and walkable, "people-scaled" communities
- Providing new housing opportunities, with building types and locations that respond to the region's changing demographics
- Targeting growth in housing, employment, and commercial development within walking distance of existing and planned transit stations
- Injecting new life into under-used areas by creating vibrant new business districts, redeveloping old buildings and building new businesses and housing on vacant lots
- Preserving existing, stable, single-family neighborhoods
- Protecting important open space, environmentally sensitive areas and agricultural lands from development
- Reducing emissions of criteria pollutants to attain federal air quality standards by prescribed dates and state ambient air quality standards as soon as practicable
- Reversing current trends in greenhouse gas emissions to support sustainability goals for energy, water supply, agriculture, and other resource areas
- Minimizing land uses that increase the risk of adverse air pollution-related health impacts from exposure to toxic air contaminants, particulates (PM_{10}, $PM_{2.5}$, ultrafine), and carbon monoxide

Regional Transportation Plan

On May 8, 2012, the Regional Council of SCAG adopted the 2012 Regional Transportation Plan (RTP) and SCS for the SCAG area aimed at attaining the reduction targets of an 8 percent per capita reduction in GHG emissions from passenger vehicles by the year 2020 and a 13 percent reduction by 2035. There are transportation-related reduction measures included in this Regional Reduction Plan that coordinate with efforts in SCAG's SCS. The 2012 RTP strives to provide a regional investment framework to address the region's transportation and related challenges, and looks to strategies that integrate land use into transportation planning with an emphasis on transit and other nonvehicle transportation modes. The RTP also provides the framework for aggregating sub-regional and local efforts to institute measures aimed at mitigating the adverse air pollution impacts from transportation activities. These measures are known as transportation control measures (TCMs). The RTP links the goal of sustaining mobility with the goals of fostering economic development, enhancing the environment, reducing energy consumption, promoting transit-friendly development patterns, and encouraging fair and equitable access to residents affected by socio-economic, geographic, and commercial limitations. The Regional Transportation Implementation Plan (RTIP) is the vehicle used to implement the RTP and SCS. The RTIP also provides the schedule and framework for the timely implementation of the Region's TCM strategies. SCAG is currently in the process of developing the 2014 RTP and SCS for their jurisdiction

aimed at updating the regional transportation modeling system and keeping on track to achieve the reduction targets.

SCAG Compass Growth Visioning

The Compass Blueprint Growth Vision effort by SCAG is a response, supported by a regional consensus, to the land use and transportation challenges facing Southern California now and in the coming years. The Growth Vision is driven by four key principles:

- **Mobility**—Getting where we want to go
- **Livability**—Creating positive communities
- **Prosperity**—Long-term health for the region
- **Sustainability**—Preserving natural surroundings

The fundamental goal of the Compass Growth Visioning effort is to make the SCAG region a better place to live, work, and play for all residents regardless of race, ethnicity, or income class. Thus, decisions regarding growth, transportation, land use and economic development should be made to promote and sustain for future generations the region's mobility, livability and prosperity.

San Bernardino Associated Governments (SANBAG)

San Bernardino Associated Governments (SANBAG) is an association of local San Bernardino County governments. It is the metropolitan planning organization (MPO) for the county, with policy makers consisting of mayors, council members, and county supervisors, and the funding agency for the county's transit systems, which include Omnitrans, Victor Valley Transit Authority, Morongo Basin Transit Authority, Mountain Area Regional Transit Authority, Barstow Area Transport, and Needles Area Transit. SANBAG administers the Congestion Management Program (CMP), provides transit planning, and regional nonmotorized transportation infrastructure and regional bicycle and pedestrian path network planning within San Bernardino County

Congestion Management Program

The Congestion Management Program (CMP) defines a network of state highways and arterials, level of service standards and related procedures, a process for mitigation of the impacts of new development on the transportation system, and technical justification for the approach. The policies and technical information contained in this document are subject to ongoing review, with updates required each two years. The last update of the CMP was completed in 2012.

Passenger Rail Short-Range Transit Plan

SANBAG, acting as the County Transportation Commission, requires each transit agency to prepare a multi-year operating and capital plan every other year. This Short-Range Transit Plan provides basic information about the transit services provided in San Bernardino County, including performance, needs, deficiencies and a proposed plan for operations and capital investments covering the next 5 years. The San Bernardino County Passenger Rail SRTP reflects SANBAG's share of the Metrolink operating and capital plan, as well as the future Redlands Passenger Rail and Gold Line Extension projects.

San Bernardino County Non-Motorized Transportation Plan

The Non-Motorized Transportation Plan provides the planning for interconnected cycling and walking system within communities in San Bernardino County. The Plan is for the development of a comprehensive system of cycling facilities, pathways, and trails. As of 2011, the combined total of centerline miles of bicycle infrastructure for all jurisdictions is 468 miles. This represents an eight-fold growth in the County's bicycle infrastructure. The challenge ahead involves developing a cohesive, integrated plan and identifying sources of funds to implement that plan. This is the goal of the San Bernardino County Non-Motorized Transportation Plan (NMTP). The NMTP of 2001 and the 2006 update have taken us part way there. The 2011 update identifies a comprehensive network, with a focus on the bicycle system. The Plan satisfies the State of California requirements of a Bicycle Transportation Plan (BTP) for purposes of Caltrans Bicycle Transportation Account (BTA) funding.

Local

City of Chino Municipal Code

The City of Chino Municipal Code contains regulations regarding traffic:

- Title 10 (Chino Traffic Code) consists of 34 chapters that establish standards applicable to various topics that impact traffic within the City including regulations for residential parking permit, loading zones, commercial vehicles and trucks, and extralegal loads. Refer to the City of Chino Municipal Code for a complete description of the regulations.
- Title 20 (Zoning), Chapter 18 (Parking), establishes standards for parking facilities based on land use designations.

Chino General Plan

The Chino General Plan contains the following policies regarding transportation, mobility and traffic[18]:

Policy TRA-1.1 **P1.** The City should consider deviating from the standard street cross-sections when improving arterials in existing neighborhoods with extremely limited expansion and widening opportunities. Bicycle lanes should only be eliminated if they are replaced with parallel facilities on neighboring streets with equivalent or better connectivity and safety for bicyclists.

Policy TRA-1.1 **P2.** When roadway widening will take place after a development project is completed, the City shall require the developer to dedicate the ultimate right-of-way for future widening along the front of the subject property and deposit an in-lieu fee of their fair share of the cost of the future improvements into an account to be held by the City for said improvements.

Policy TRA-1.1 **P3.** Through the development review process, the City shall ensure that new developments consider location, roadway width, existing driveways, and surrounding development in order to minimize the impacts of new development on surrounding neighborhoods

[18] These policies are not a complete listing of all policies contained in the General Plan; those policies that would be most applicable to the proposed project are included here.

Policy TRA-1.1 **P4.** Through the development review process, the City shall limit the number of access points along all major arterials, continue to control access points through construction of median turn lanes and island curb cuts, and reduce and consolidate the current number of access points along major arterials.

Policy TRA-1.1 **P5.** The City shall require all new development to mitigate traffic impacts identified by a City- mandated traffic study or as required by the Congestion Management Plan (CMP).

Policy TRA-1.1 **P6.** Require a City traffic study to be prepared for projects that are inconsistent with the General Plan Land Use Element, and/or generate more than 50 two-way peak hour trips to one intersection. This includes projects such as those with: 100 or more residential units, 25,000 or more square feet of office space, 1,000 or more square feet of retail, or 100,000 or more square feet of industrial.

Policy TRA-1.1 **P7.** The City shall undertake road-widening projects only when they are feasible on a significant length of roadway, while still requiring necessary dedications on an on-going basis.

Policy TRA-1.1 **P8.** The City shall ensure that construction of all transportation facilities is fully funded, or in the case of facilities that are funded through Development Impact Fees, the fair share is paid, by the development creating the need.

Policy TRA-1.1 **P9.** The City shall assess fees to construct and install traffic signals, bridges, streets, or other off-site auto network improvements to serve proposed development. Fees shall be set based on the proportion of the need or benefit occurring to the project. When determining appropriate transportation improvements, the City shall consider bicycle, pedestrian, and transit improvements.

Policy TRA-1.1 **P10.** The City shall evaluate the adequacy of handicapped parking provision, and compliance with Americans with Disabilities Act (ADA) requirements, in review of all proposed new development and re-development projects in Chino.

Policy TRA-1.1 **P10.** The City shall prioritize the improvement and widening of sawtooth roads and intersections that currently exist.

Policy TRA-1.2 **P1.** The City shall achieve an average LOS D or better at intersections and along roadway segments. This average shall be demonstrated to the satisfaction of the Director of Public Works, who shall also review level of service at intersections and roadway segments.

Policy TRA-1.2 **P2.** Implement the San Bernardino Associated Governments (SANBAG) Congestion Management Program Guidelines for Traffic Impact Analysis reports.

Policy TRA-1.3 **P1.** Make reasonable efforts to stabilize and maintain traffic volumes below 1,800 vehicles per day on local residential streets. The City shall provide adequate capacity to the extent possible on major and collector streets to prevent cut-through traffic onto neighborhood streets.

Policy TRA-1.3 **P2.** The City shall utilize traffic calming strategies for residential areas to minimize through traffic and high travel speeds, while also improving the bike and pedestrian travel conditions and safety.

Policy TRA-1.3 **P3.** The City shall ensure that traffic calming measures will not compromise overall connectivity of the auto network or impede access and connectivity for pedestrians, cyclists, and persons with mobility limitations.

Policy TRA-1.3 **P4.** The City shall design each arterial with sufficient capacity to accommodate anticipated traffic based on intensity of existing and planned land use, without providing excess capacity to encourage additional non-local cut-through traffic on City streets.

Policy TRA-2.1 **P1.** The City shall coordinate with Caltrans to balance level of service on freeway ramps with coordination of arterial street traffic signal timing to prevent queuing on Chino streets.

Policy TRA-2.1 **P2.** The City shall take an active participatory role in coordinated transportation planning with the County of San Bernardino, Caltrans, SANBAG, Southern California Association of Governments (SCAG), and surrounding jurisdictions.

Policy TRA-2.1 **P3.** The City shall coordinate with State agencies regarding landscaping plans for right-of-way and on-/off-ramp landscaping.

Policy TRA-2.1 **P4.** The City shall coordinate street development standards with adjacent jurisdictions.

Policy TRA-3.1 **P1.** The City shall limit land uses with a significant reliance on trucks to parcels fronting designated truck routes, in industrial areas, or within a ¼ mile driving distance of freeways.

Policy TRA-3.1 **P2.** The City shall discourage new parks, schools, day care centers, and major pedestrian uses from being sited on designated truck routes.

Policy TRA-3.1 **P3.** Signs shall be used to delineate both City and State truck routes.

Policy TRA-3.1 **P4.** The City shall continue to work with the State and neighboring cities to implement the truck routes.

Policy TRA-3.1 **P5.** The City shall encourage existing businesses to ensure that they require adherence to City truck routes in the conduct of their business.

Policy TRA-3.2 **P1.** The City shall require land dedication for grade separations on key arterials and other roadways as a condition of approval for companies that utilize the rail facilities.

Policy TRA-3.2 **P2.** The City shall discourage new rail users and expansion of existing rail users on the Chino Line in the downtown area.

Policy TRA-3.2 **P3.** The City shall continue to work with railway operators to implement the rail lines.

Policy TRA-4.1 **P1.** The City shall continue to support ITS applications currently operating in San Bernardino County and the City, and review new technology as it becomes available.

Policy TRA-4.1 **P2.** The City shall support the expansion of new ITS applications that increase the efficiency of the vehicle network, increase coordination and reduce the need for additional capacity.

Policy TRA-4.1 **P3.** The City shall collaborate with transit providers, neighboring jurisdictions, and regional agencies to prioritize and maximize transit mobility along transit priority streets in Chino. Improvements could include installing transit signal priority, queue jump lanes at congested intersections, and/or exclusive bus lanes.

Policy TRA-4.2 **P1.** The City shall collaborate with transit providers, neighboring jurisdictions, and regional agencies to explore the feasibility of using ITS applications to expand participation in carpooling and ridesharing.

Policy TRA-5.1 **P1.** The City shall work with the Chino Valley Unified School District, neighborhood associations, and Parent Teacher Associations (PTAs) to facilitate the creation of "walking school buses," "bike trains" and carpools for commuting to and from Chino schools. "Walking school buses" and "bike trains" are led by at least two responsible adults, one in front and one in back, to assist younger children in safely walking and biking to school.

Policy TRA-5.1 **P2.** The City shall work with the Chino Valley Unified School District, the Police Department, neighborhood associations, and PTAs to initiate pedestrian and bicycle safety training and workshops in Chino schools.

Policy TRA-5.1 **P3.** The City shall work with the Chino Valley Unified School District to identify schools and nearby recreational facilities that need additional bicycle parking and prioritize development of those facilities.

Policy TRA-5.2 **P1.** The City of Chino shall review existing conditions and prioritize pedestrian improvements, crosswalks, bicycle facilities, and traffic calming projects in Chino public school zones and along recommended routes to schools.

Policy TRA-5.2 **P2.** The City and Police Department shall prioritize traffic enforcement activities around schools to improve the safety of pedestrian and bicycle travel to schools.

Policy TRA-6.1 **P1.** The City shall require streets in proposed new development and redevelopment projects to be designed with a grid, modified grid, or small block pattern within the City's arterial street network to facilitate traffic flow and provide multiple connections to arterials. These street patterns shall minimize dead-ends and cul-de-sacs for motorized vehicles to the extent possible. Where not possible streets will provide pedestrian and bicycle connections even if no through auto access is provided.

Policy TRA-6.1 **P2.** New neighborhoods should be physically connected to one another via a series of roadways and pedestrian paths, and all residents should be within a short walk or drive of retail and other services.

Policy TRA-6.1 **P3.** The City shall develop continuous pedestrian and bicycle connections between neighborhoods and to destinations such as schools, shopping, and parks.

Policy TRA-6.2 **P1.** The City shall continue to review pedestrian, bicycle and traffic safety on Chino's residential streets as well as at critical intersections.

Policy TRA-6.2 **P2.** Based on engineering analysis and judgment, the City shall enhance the safety of pedestrians, bicyclists and traffic operations in Chino through creation of dedicated left turn lanes, and review of existing conditions, existing pavement markings and signage to enhance traffic control on Chino streets, as well as the modification/elimination of protected permissive phasing on all traffic signals.

Policy TRA-6.3 **P1.** The City shall work to create barrier-free access throughout the pedestrian network, particularly at hospitals, medical centers and senior centers. This shall include approaches such as increased pedestrian cross times for the slower movement of elderly and disabled residents (as allowed by State standards), construction of curb ramps, installation of countdown pedestrian heads, and repair of cracked or slanted sidewalks.

Policy TRA-6.3 **P2.** During street work, sidewalks, crosswalks, and intersections should be retrofitted to accommodate the disabled wherever possible.

Policy TRA-7.1 **P1.** The City shall encourage employers of 100 or more full-time employees, as well as schools and other organizations, to develop TDM plans to increase carpooling, and encourage the use of public transportation, bicycling, and walking.

Policy TRA-7.1 **P2.** The City shall encourage employers of 100 or more full-time employees to allow telecommuting (work at home) and flexible and alternate work schedules to allow commuters to increase their use of alternative forms of transportation, and to minimize congestion at peak hours.

Policy TRA-7.1 **P3.** The City shall encourage employers with 100 or more fulltime employees and major retailers to provide shuttle service from local and transit intermodal facilities to the place of employment or shopping center.

Policy TRA-7.1 **P4.** The City shall require employers to offer more desirable onsite parking space locations for carpools and vanpools.

Policy TRA-7.1 **P5.** The City shall encourage employers to pay for transit passes for their employees who agree not to drive to work, to implement flexible work schedules, and to provide bike racks/storage and lockers/showers for bicycle and walking commuters.

Policy TRA-7.1 **P6.** The City shall encourage new industrial and commercial developments, the Chamber of Commerce, the school district, and large employers to distribute promotional material concerning transit ridership opportunities and services.

Policy TRA-7.1 **P7.** The City shall require, as a condition of approval for new commercial and industrial developments, the preparation and implementation of a Truck Travel Demand Management (TTDM) program.

Policy TRA-8.1 **P1.** The City shall enforce Chino's public parking regulations.

Policy TRA-8.1 **P2.** The City shall supply an adequate amount of handicapped parking in proximity to civic, recreational, cultural, and commercial centers in Chino, per ADA requirements.

Policy TRA-8.1 **P3.** The City shall post information in public parking areas indicating location, hours, and other parking regulations.

Policy TRA-8.1 **P4.** The City shall encourage parking efficiencies wherever feasible, including shared parking, off-site parking, tandem, valet, mechanical stackers, and other methods to make the most efficient use of the existing parking supply.

Policy TRA-8.1 **P5.** The City shall provide directional signage to the locations of public parking areas, especially in the downtown area.

Policy TRA-9.1 **P1.** The City shall encourage and promote the development of passenger rail service to the Chino Transit Center. This rail service should connect Chino residents and workers to other Metrolink stations.

Policy TRA-9.1 **P2.** The City shall encourage the routing of buses to the Chino Airport, Chaffey College, and other major destinations to facilitate transit access to the airport for workers and passengers.

Policy TRA-9.1 **P3.** To the extent feasible, transit stops shall have dedicated curbside loading space, passenger shelters and amenities such as maps and schedules (or real-time arrival information).

Policy TRA-9.1 **P4.** New developments shall provide for transit and bicycle facilities such as bus stops, bus bays, transit shelters, benches, onsite drop off locations, bicycle racks, lockers and showers.

Policy TRA-9.1 **P5.** The City shall recommend to transit providers increases in transit service to areas targeted for redevelopment or concentrations of transit-oriented development.

Policy TRA-9.2 **P1.** When appropriate and whenever possible, the City shall support increased frequency and operational hours of public transit service.

Policy TRA-9.3 **P1.** The City shall work with local transit providers to review safety enhancements around bus stops in Chino and routes used by public transit patrons to access transit stops.

Policy TRA-9.3 **P2.** The City shall work with transit providers to consider safety in the location of transit stops, including locating them in places where they will be visible to passers-by, homes, and businesses.

Policy TRA-10.1 **P1.** Libraries, schools, community centers, and other important community facilities in Chino shall have bicycle parking, including racks and lockers as appropriate.

Policy TRA-10.1 **P2.** The City shall require new development to provide off-street bicycle parking per zoning standards, and shall review those standards periodically to ensure that adequate bicycle parking is being provided.

Policy TRA-10.1 **P3.** The City shall encourage employers of 100 or more full-time equivalent employees to provide showers and lockers for bicycle commuters.

Policy TRA-10.1 **P4.** Incorporate bicycle paths/trails/facilities outside the street right-of-way in all new development, consistent with the Bicycle Master Plan.

Policy TRA-10.2 **P1.** The City shall enhance and improve bicycle connections between neighborhoods, and between neighborhoods and significant destinations such as parks, schools, transit stops and transit centers, shopping centers, and employment centers.

Policy TRA-10.2 **P2.** Where existing street width or traffic volumes do not support creation or maintenance of striped bicycle lanes, the City shall indicate to both drivers and bicyclists that bicycle use is permitted and should be expected through "sharrows"1 pavement markings, "share the road" signage, or other mechanisms.

Policy TRA-10.2 **P3.** The City shall evaluate proposed new development and redevelopment projects to ensure that they include consideration of connections to the Chino bicycle circulation system and provide bicycle parking and other facilities for bicyclists, as appropriate to the development type.

Policy TRA-11.1 **P1.** Where appropriate, the City shall develop and implement traffic calming measures such as narrower streets, pedestrian "bulb-outs" (extended curbs at corners), four-way stops, and traffic circles on Chino's residential streets.

Policy TRA-11.1 **P2.** The City shall require pedestrian-friendly traffic signal accessories, such as "count-down" pedestrian signals and similar technologies at all significant pedestrian crossings.

Policy TRA-11.1 **P3.** Proposed new development and redevelopment projects shall include connections to the Chino pedestrian circulation system and adhere to City design standards for sidewalks, trail systems, crosswalks, and associated pedestrian infrastructure, following ADA requirements.

Policy TRA-11.1 **P4.** The City shall prioritize the development of safe, well maintained walking routes along creeks.

Policy TRA-12.1 **P1.** The City shall continue to support the development and maintenance of neighborhood equestrian trails, which are intended to serve local recreational needs.

Policy TRA-12.1 **P2.** The City shall develop connections between existing public trails and the public rights-of-way to form a trail network that can be used to travel through the southern part of the City.

Policy TRA-13.1 **P1.** The City shall work with San Bernardino County and Los Angeles World Airports to support the needs of the Chino Airport and to ensure that it provides quality air transportation to Chino and surrounding communities.

Policy TRA-13.1 **P2.** The City shall work with transit providers to develop frequent and convenient transit access to the Chino Airport and LA/Ontario Airport.

Policy TRA-14.1 **P1.** The City shall work with transit agencies to prioritize funding for expanded transit service and transit service with lower emissions.

Policy TRA-14.2 **P1.** The City shall encourage new construction to include vehicle access to properly wired outdoor receptacles to accommodate zero emission vehicles and/or plug in hybrids.

Policy TRA-14.2 **P2.** The City shall encourage transportation fleet standards to achieve the lowest emissions possible, using a mix of alternate fuels and low- and zero-emission vehicles.

City of Chino Intersection Analysis Criteria

Intersection operations are evaluated using a Level of Service System. The concept of level of service is used to characterize how well the roadway net work operates. These evaluations are based on empirical data collected and reported in the 2000 Highway Capacity Manual, which is maintained by the Transportation Research Board as directed by the "Guidelines for CMP Traffic Impact Analysis Reports in San Bernardino County." The CMP states that LOS D is the lowest acceptable level of service on

CMP roadways in Chino. The 2000 Highway Capacity Manual utilizes a methodology that assesses the average control delay at intersections. This methodology results in level of service measurements, indicating the quality of traffic flow and using letter grades from A (best) to F (worst). The level of service ranges for signalized intersections are provided in Table 4.3.16-1 (Signalized Intersection Level of Service [LOS] Definitions). Unsignalized intersections are analyzed using a similar methodology, but delay is calculated only for movements that are controlled by the stop sign. Therefore the delay at side-street stop controlled intersections reflects only the delay accruing to vehicles that are stopping at the stop sign, while through traffic on the main street flows uninterrupted with no delay. The level of service ranges for the unsignalized intersections are shown in Table 4.3.16-2 (Unsignalized Intersection Level of Service [LOS] Definitions).

Table 4.3.16-1 Signalized Intersection Level of Service (LOS) Definitions

LOS	*Interpretation*	*Control Delay/Vehicle (sec/veh)*
A	Excellent operation. All approaches to the intersection appear quite open, turning movements are easily made, and nearly all drivers find freedom of operation.	<= 10
B	Very good operation. Many drivers begin to feel somewhat restricted within platoons of vehicles. This represents stable flow. An approach to an intersection may occasionally be fully utilized and traffic queues start to form.	> 10–20
C	Good operation. Occasionally drivers may have to wait more than 60 seconds, and back-ups may develop behind turning vehicles. Most drivers feel somewhat restricted.	> 20–35
D	Fair operation. Cars are sometimes required to wait more than 60 seconds during short peaks. There are no longstanding traffic queues. This level is typically associated with design practice for peak periods.	> 35–55
E	Poor operation. Some long-standing vehicular queues develop on critical approaches to intersections. Delays may be up to several minutes.	> 55–80
F	Forced flow. Represents jammed conditions. Backups from locations downstream or on the cross street may restrict or prevent movement of vehicles out of the intersection approach lanes; therefore, volumes carried are not predictable. Potential for stop and go type traffic flow.	> 80

SOURCE: City of Chino (2010b).

Table 4.3.16-2 Unsignalized Intersection Level of Service (LOS) Definitions

LOS	*Interpretation*	*Control Delay/Vehicle (sec/veh)*
A	Little or no delays	<= 10
B	Short traffic delays	> 10–15
C	Average traffic delays	> 15–25
D	Long traffic delays	> 25–35
E	Very long traffic delays	> 35–50
F	Extreme traffic delays with intersection capacity exceeded	> 50

SOURCE: City of Chino (2010b).

To assess Chino's street segment capacities, values were developed relating average daily traffic (ADT) with levels of service (LOS) for specific roadway classifications and lane configurations. The capacity criteria utilized in this analysis are summarized in Table 4.3.16-3 (Roadway Level of Service [LOS]

Definitions). Roadway capacity and average daily traffic volumes, shown in Figure 4.3.16-2 (Average Daily Traffic Volumes), are used in determining levels of service. A roadway with a smaller capacity and a large volume will most likely have a lower level of service (LOS D or E). By contrast, a roadway with fewer vehicles will probably have a higher level of service (LOS A or B). LOS F is considered to be the ultimate capacity of the street which represents "breakdown" conditions. LOS E is considered to be the lowest acceptable operating condition. LOS D is also the lowest acceptable level of service for CMP roadways per CMP guidelines; and for intersections in the City of Chino, per City standards.

Table 4.3.16-3 Roadway Level of Service (LOS) Definitions

LOS	Freeway	Expressway		Major Arterial		
	6 Lanes	4 Lanes	8 Lanes	4 Lanes	6 Lanes	8 Lanes
A	72,00	24,500	49,000	21,500	32,300	43,000
B	84,000	28,600	57,200	25,100	37,700	50,200
C	96,000	32,700	65,400	28,700	43,100	57,400
D	108,000	36,800	73,500	32,300	48,500	64,600
E	120,000	40,900	81,700	35,900	53,900	71,800
LOS	Primary Arterial			Secondary Arterial		Collector
	2 Lanes	4 Lanes	8 Lanes	4 Lanes	6 Lanes	8 Lanes
A	10,000	18,000	29,000	8,000	17,000	8,000
B	11,000	20,000	34,000	10,000	20,000	9,000
C	13,000	24,000	38,000	11,000	22,000	10,000
D	14,000	27,000	43,000	13,000	25,000	12,000
E	16,000	30,000	48,000	14,000	28,000	13,000

SOURCE: City of Chino (2010b).

Existing Traffic Conditions on the Roadway Network

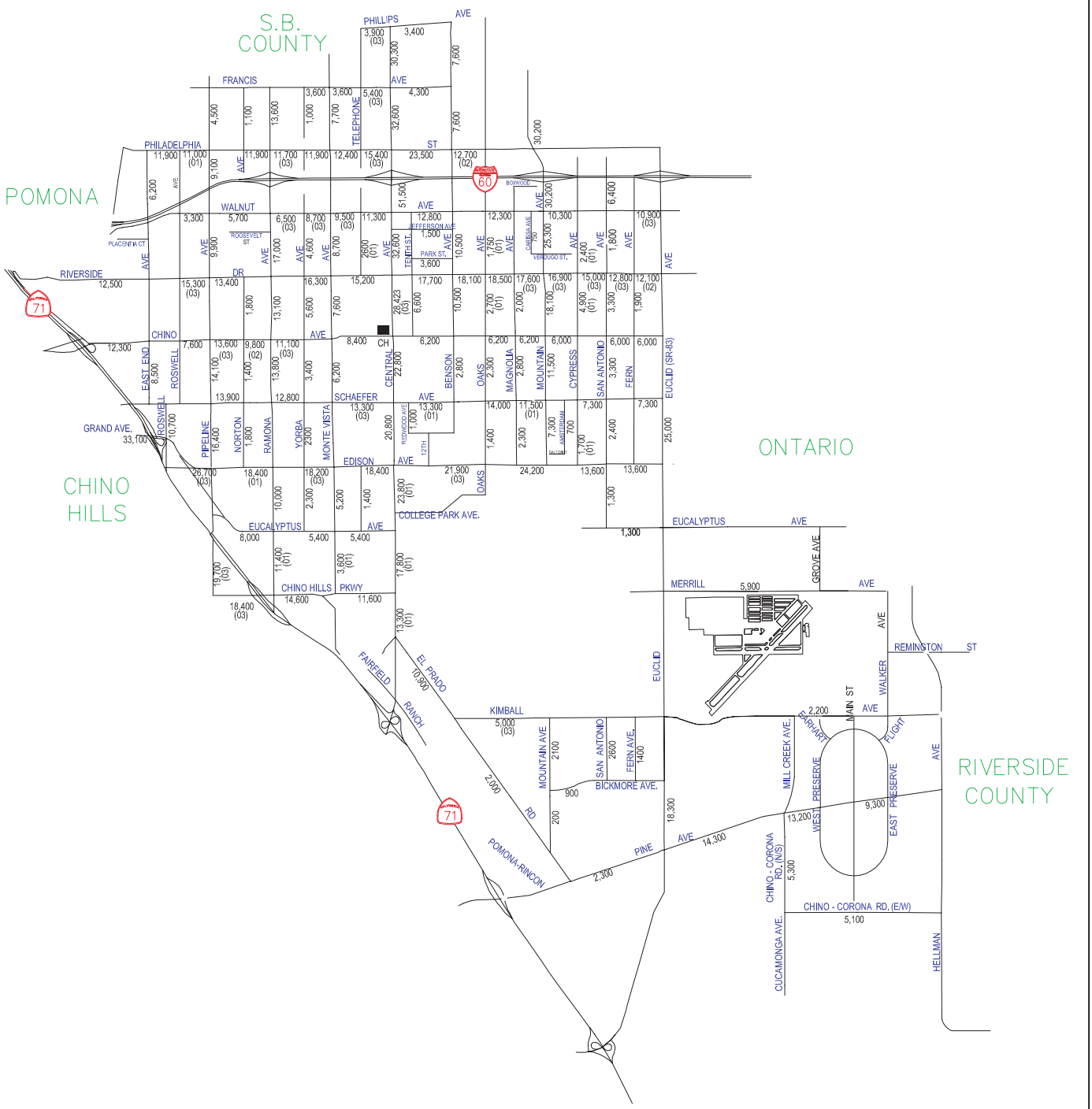
Figure 4.3.16-3a (Existing Intersection Volumes) and Figure 4.3.16-3b (Existing Intersection Volumes) show the existing traffic conditions at the Chino General Plan study intersections.

Project Impact Evaluation

Thresholds of Significance

The following thresholds of significance are based on the 2012 CEQA Guidelines Appendix G. For purposes of this EIR, implementation of the San Bernardino County Regional GHG Reduction Plan might have a significant adverse impact on transportation/traffic if it would do any of the following:

- Conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and nonmotorized travel and relevant components of the circulation system, including, but not limited to, intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit

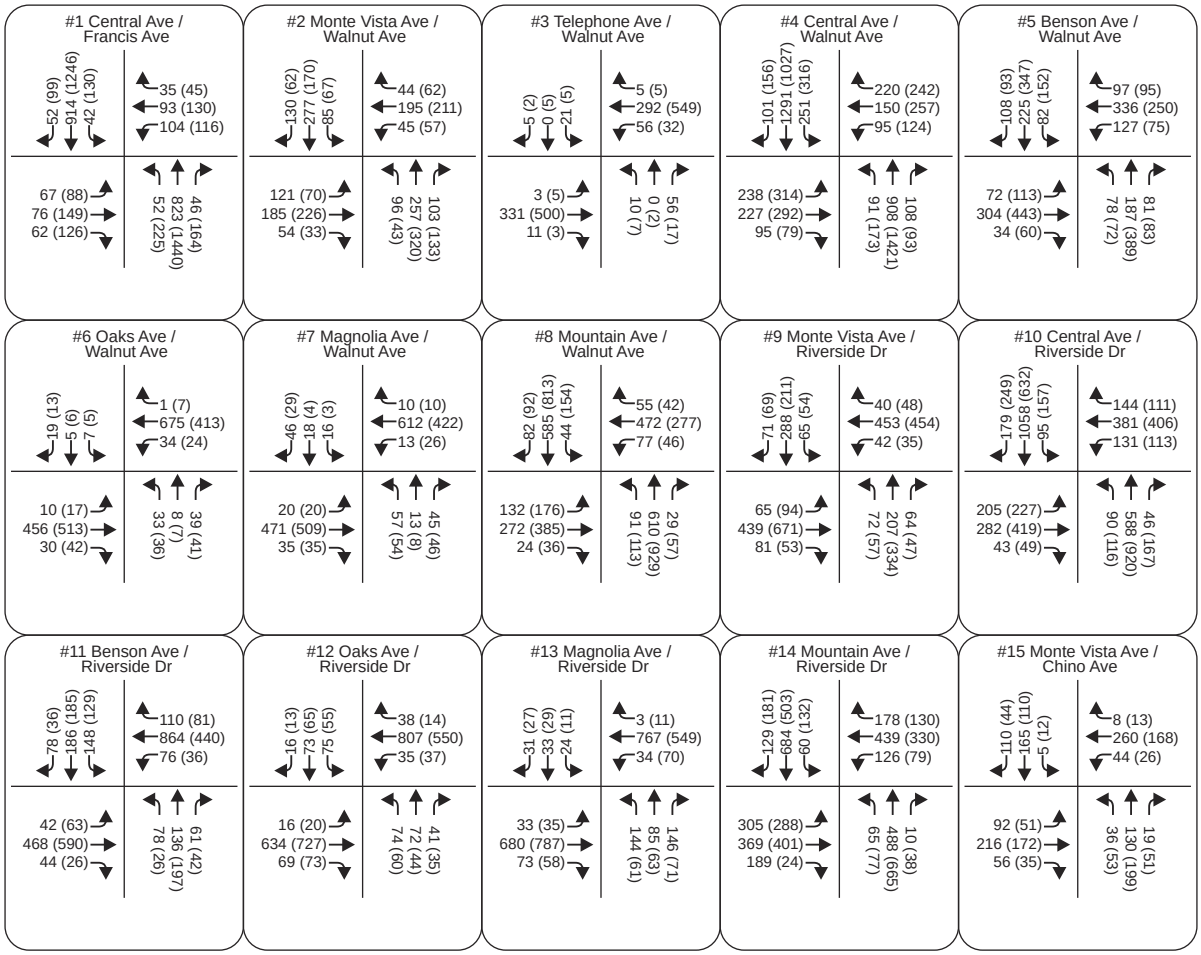


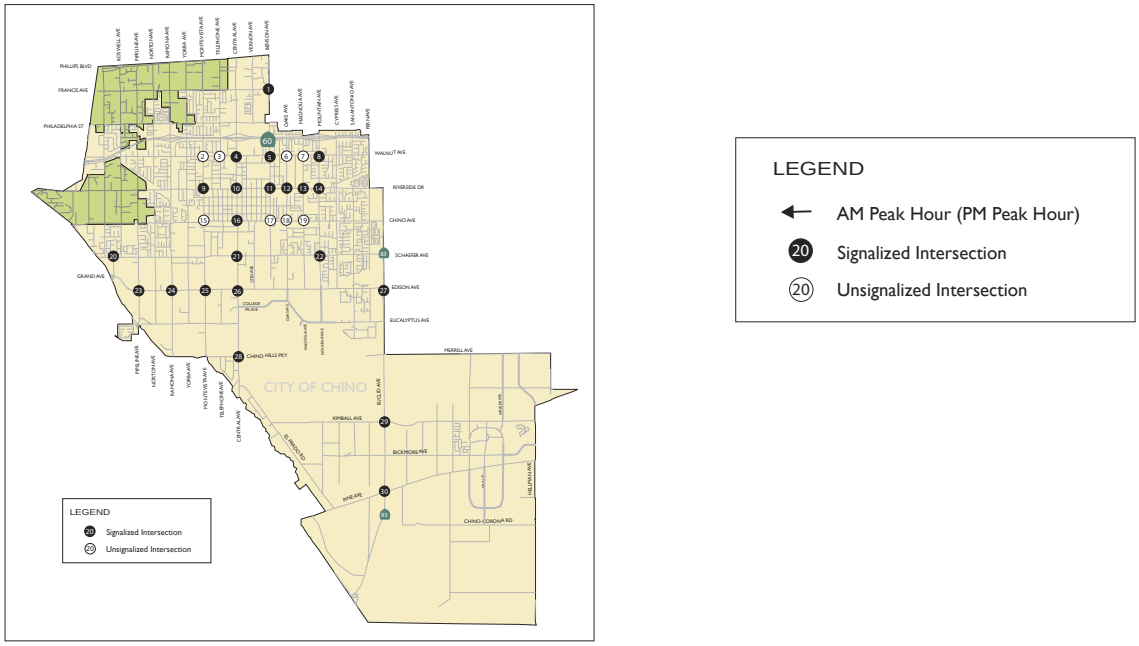
Source: City of Chino General Plan Draft Environmental Impact Report, January 2010.

Figure 4.3.16-2

Average Daily Traffic Volumes

ATKINS





LEGEND

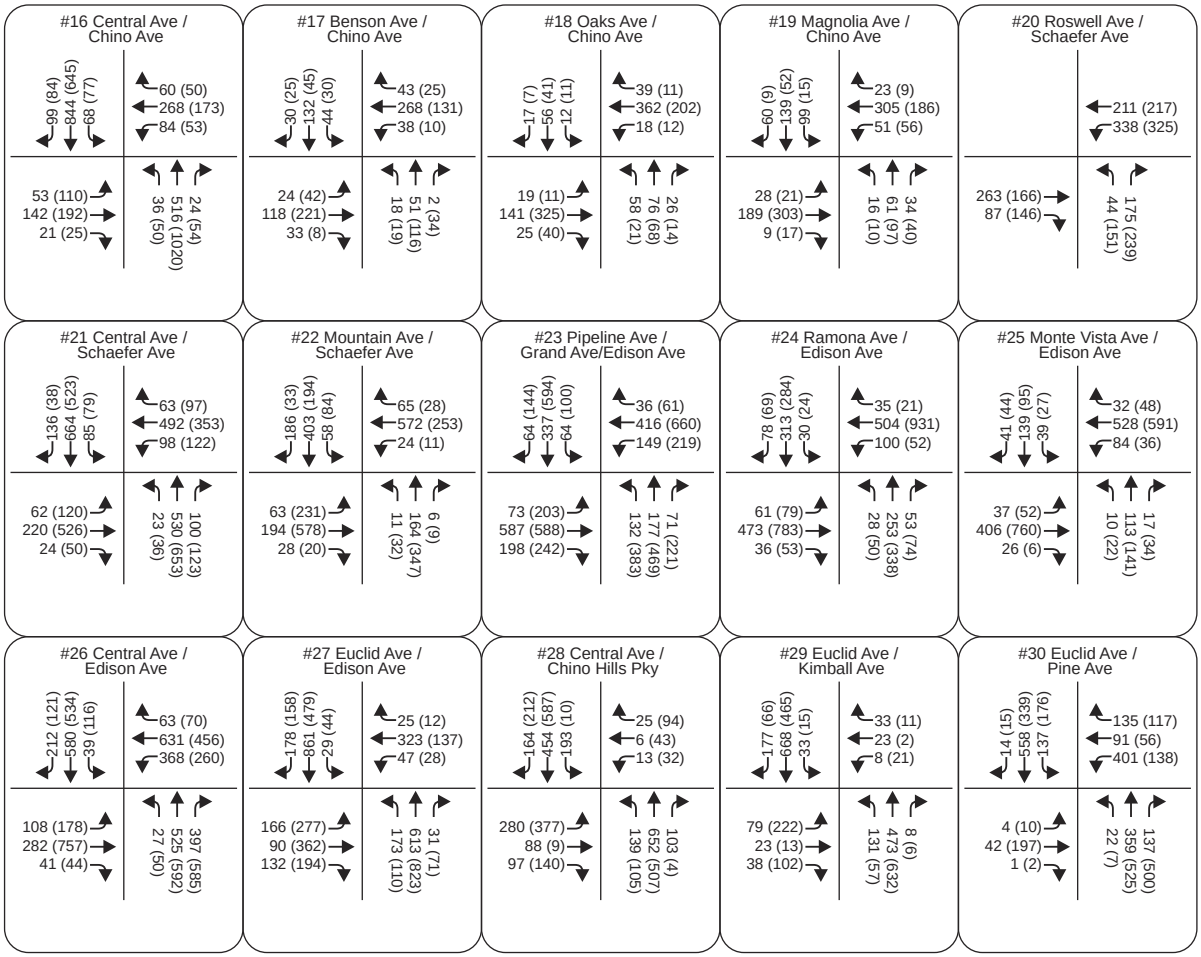
- ← AM Peak Hour (PM Peak Hour)
- (20) Signalized Intersection
- (20) Unsignalized Intersection

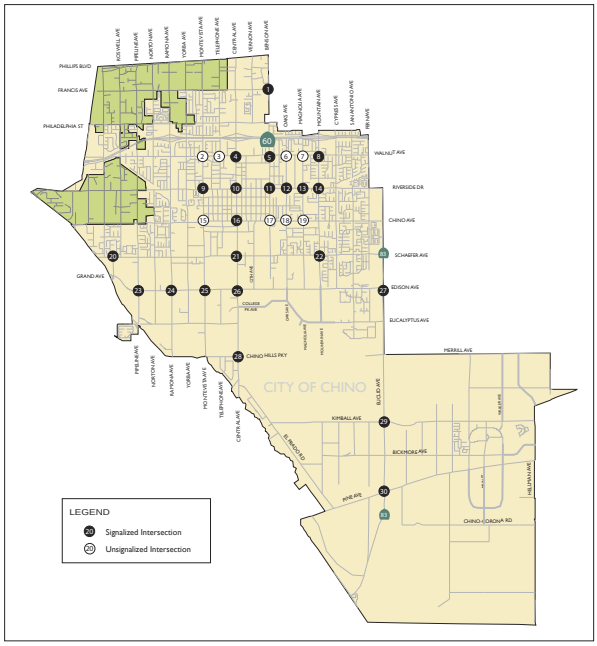
NORTH
NOT TO SCALE

Source: City of Chino General Plan Draft Environmental Impact Report, January 2010.

Figure 4.3.16-3a
Existing Intersection Volumes

ATKINS





LEGEND

AM Peak Hour (PM Peak Hour)

Signalized Intersection

Unsignalized Intersection

NORTH
NOT TO SCALE

Source: City of Chino General Plan Draft Environmental Impact Report, January 2010.

Figure 4.3.16-3b
Existing Intersection Volumes

ATKINS

- Conflict with an applicable congestion management program, including, but not limited to, level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways
- Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks
- Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)
- Result in inadequate emergency access
- Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities

Analytic Method

The programs and measures contained in the Regional Reduction Plan were compared to applicable transportation plans and transportation policies to determine if any inconsistency exists. These plans include the SCAG's Regional Transportation Plan (RTP) with an adopted SCS, the Compass Growth Visioning, SANBAG CMP, and the San Bernardino County Non-Motorized Transportation Plan. The Regional Reduction Plan was also reviewed for potential traffic impacts that could result during implementation of the reduction measures.

Effects Not Found to Be Significant

Threshold	Would the project conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and nonmotorized travel and relevant components of the circulation system, including, but not limited to, intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?

Implementation of the Regional Reduction Plan will reduce GHG emissions and vehicle miles traveled (VMT) associated with on road passenger vehicles within the City. The Regional Reduction Plan does this by building upon and supporting the Chino General Plan policies related to transportation and mobility. There are numerous General Plan policies which ensure VMT reduction through greater transit opportunities and ridership in the City. General Plan Goal TRA-14 and its supporting policies call specifically for reducing GHG emissions by reducing VMT and by increasing or encouraging the use of alternative fuels and transportation technologies. Additionally, General Plan Goal TRA-7 and its supporting policies call for minimizing the share of travel for single occupancy vehicles in Chino. The Regional Reduction Plan reduction measure Transportation 2 (Smart Bus Technologies) requires the City of Chino to work with Omnitrans in implementing the BRT routes throughout the City, which correlates' with the General Plan Goal TRA-4 which calls for maximizing efficiency of the existing transportation network throughout Chino with the use of Intelligent Transportation System (ITS) strategies. Furthermore, General Plan Policy TRA-14.1 P1 requires the City to work with transit agencies to prioritize funding for expanded transit service and transit service with lower emissions. In addition the General Plan promotes nonmotorized travel by focusing on a pedestrian and bicycle path network connecting land uses within the City through a number of goals and policies in the Chino General Plan.

General Plan Policy TRA-10.2 P1 requires the City to increase the connectivity, safety, and convenience of the bicycle network. The Regional Reduction Plan also implements and supports various regional transportation planning efforts in the City including the SCS in the SCAG RTP, The SCAG Compass Growth Visioning, and the San Bernardino County Non-Motorized Transportation Plan (SANBAG 2011). BRT Transit and nonmotorized transportation infrastructure built on all roadways, including CPM designated roadways, require review by City Planning and Traffic Engineering staff for approval to ensure that the improvements do not negatively impact the traffic flow on these major arterials. Therefore, the Regional Reduction Plan implements and furthers the goals of the applicable plans, ordinances, or policies establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and nonmotorized travel. Further, because of City review of transit and nonmotorized infrastructure to ensure that these improvements do not negatively impact the traffic flow on roadways, the implementation of the Regional Reduction Plan will not conflict with the level of effectiveness for the performance of intersections, roadways, highways and freeways set by the City of Chino, the CMP and Caltrans. This impact is considered ***less than significant***. No mitigation is required.

Threshold	Would the project conflict with an applicable congestion management program, including, but not limited to, level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?

The Congestion Management Program (CMP) defines a network of state highways and arterials, level of service standards and related procedures, a process for mitigation of the impacts of new development on the transportation system, and technical justification for the approach. The last update of the CMP was completed by SANBAG in 2012. Implementation of the Regional Reduction Plan may require transit or nonmotorized transportation infrastructure to be built on some CPM roadways. Transit and nonmotorized transportation infrastructure built on all roadways, including CPM designated roadways, require review by City Planning and Traffic Engineering staff for approval to ensure that the improvements do not negatively impact the traffic flow on these major arterials.

The City of Chino has a level of service standard of LOS D or better at all intersections within the City. Transit-oriented development and the emphasis on nonmotorized transportation near transit stops may result in localized impacts to the LOS designations on roadways and intersections near these transit stations. Changes in LOS values as a result of transit were evaluated in a traffic study as part of The General Plan EIR and concluded that at buildout of the Proposed Land Use Plan within the General Plan, all intersections with the recommended future lane configurations are projected to operate at LOS D or better. This impact is considered ***less than significant***. No mitigation is required.

Threshold	Would the project result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?

The Regional Reduction Plan would not result in changes in air traffic patterns through an increase in traffic levels or a change in location. As such, no safety risks would occur. There would be ***no impact***.

Threshold	Would the project substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

The proposed project does not include facilities that would substantially increase hazards, nor would it construct incompatible uses. Energy-producing facilities needed for implementation of the Regional Reduction Plan would consist of solar arrays or wind turbines on rooftops of new or renovated buildings, adjacent to structures, or in open spaces. Appropriate setbacks would be required as specified in the Municipal Code to ensure there would be no increase in hazards to vehicles as a result of implementation of the proposed project. This impact is considered ***less than significant***. No mitigation is required.

Threshold	Would the project result in inadequate emergency access?

The Regional Reduction Plan reduces GHG emissions citywide and includes reduction measures such as energy efficiency goals, energy efficiency retrofits, renewable energy generation, the reduction of vehicle trips and VMT to reduce transportation related emissions, waste diversion and water conservation programs. None of the reduction measures would alter emergency access or evacuation plans. Improvements to transit, bicycle, and pedestrian infrastructure along roadways that would serve as emergency access and evacuation within the City would be reviewed by the City to ensure adequate ingress and egress along these roadways. Therefore, the impact would be ***less than significant***. No mitigation is required.

Threshold	Would the project conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?

As described above, the Regional reduces transportation related GHG emissions by furthering the policies, plans and programs for public transit, bicycle and pedestrian facilities. In particular the Regional Reduction Plan furthers the General Plan Policies TRA-10.1 P1 through TRA-11.1 P4, meant to improve the bicycle and pedestrian circulation system; and furthers to goals of the San Bernardino County Non-Motorized Transportation Plan. In addition the Regional Reduction Plan implements the SCS in the SCAG RTP, and the General Plan Goal TRA-4 and Policies TRA-14.1 P1 through TRA-14.2 P2, meant to improve the public transit system in the City. Transit and nonmotorized transportation infrastructure built on all roadways require review by City Planning and Traffic Engineering staff review and approval to ensure that performance standards and safety are not impacted negatively. Therefore, the impact would be ***less than significant***. No mitigation is required.

Cumulative Impacts

Because the Regional Reduction Plan does not create significant transportation impacts at a project level, implementation of the Regional Reduction Plan will not create impacts to transportation that are cumulatively considerable. Therefore, ***cumulative impacts would be less than significant***.

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4.3.17 Utilities/Service Systems

This section of the EIR analyzes the potential environmental effects on utilities/service systems (water supply, storage, and distribution; wastewater collection, transmission, and treatment; solid waste; and energy) in the City of Chino from implementation of the Regional Reduction Plan. Data for this section were taken from the Chino General Plan (July 2010a) and associated environmental impact report (January 2010b). Full reference-list entries for all cited materials are provided at the end of this section.

No comment letters addressing utilities/service systems were received in response to the notice of preparation (NOP) circulated for the Regional Reduction Plan.

Environmental Setting

Potable Water Supplies and Service Systems

Water supply is primarily provided by the Chino Water Utility, which operates within the City's Public Works Department, and provides water to an area of about 27 square miles. It is a sub-agency of the Inland Empire Utilities Agency (IEUA), a member of the Water Facilities Authority – Joint Powers Agency (WFA), a member of the Chino Basin Desalter Authority (CDA), and a member of the Chino Basin Watermaster. The City of Chino water supply is derived from a combination of sources: imported water delivered from outside the City of Chino, local water from the local groundwater supply, and recycled water processed locally by the IEUA. Additionally, the Monte Vista Water District (MVWD) provides retail potable water service to a 2007 population of about 8,600 people in portions of northwest Chino and the City of Chino Hills provides retail potable water service to a 2007 population of approximately 700 people (Chino 2010a).

Local Water Supply and Reliability

The City extracts groundwater from the Chino Groundwater Basin utilizing City-owned wells. The Chino Groundwater Basin is an adjudicated basin and it is managed by the court-approved Chino Basin Watermaster. The Watermaster is guided by the provisions of the Chino Basin Judgment and subsequent agreements between the parties to the Judgment. These agreements provide for groundwater production rights and a physical solution for the operation and maintenance of the Basin. Additional water production rights are received from reallocations of underutilized rights originally assigned to historic agricultural use to municipal use, although the reallocations are subject to annual availability. The legally designated safe yield of the Chino Groundwater Basin is 140,000 acre-feet per year (afy). Replenishment of the Basin is required in instances when pumping occurs in excess of the safe yield or production right limits. Purchasing imported water from MWD through IEUA for groundwater basin recharge has been the most prevalent method of making-up for any excess pumping, although supplemental water may be obtained from any available source, including recycled water, so long as water quality restrictions are observed.

Optimum Basin Management Program

The Court in the 1978 Judgment ordered CBWM to develop an Optimum Basin Management Program (OBMP). The OBMP has since been adopted and is being implemented. The OBMP and two interagency agreements, the "Peace Agreement" of 2000 and "Peace II" of 2005, set forth programs to provide better hydraulic control of the basin, balance pumping and recharge, and provide for more local stormwater recharge, desalting of polluted groundwater, recycled water use and recharge, water storage and recovery programs, and facilities to recharge imported water, when available (CBWM 2000; CBWM 2005).

Imported Water Supply and Long-Term Reliability

The Southern California region faces a challenge satisfying its water requirements and securing its firm water supplies. Increased environmental regulations and competition for water from outside the region have resulted in reduced supplies of imported water. Continued population and economic growth correspond to increased water demands within the region, putting an even larger burden on local supplies. A number of significant factors affecting delivery reliability are discussed below. Major sources of uncertainty include Delta pumping restrictions, organism decline, climate change and sea level rise, and levee vulnerability associated with floods and earthquakes.

Metropolitan Water District of Southern California

MWD has a 5,200-square-mile service area and imports about half of the water used in Southern California. The other half includes local surface and groundwater supplies, recycled water, and water imported from the Owens Valley by the City of Los Angeles. Urban water demands represent less than 20 percent of California's developed water supply, with agriculture using more than 80 percent. MWD imports water from the Colorado River and, through a contract with the State of California, from northern California via the State Water Project (SWP). The SWP, MWD's Colorado River Aqueduct, and MWD's local water facilities and programs have many layers that provide reliability. The SWP includes the very large San Luis Reservoir, near the City of Los Banos in Central California. Closer to southern California are Pyramid and Castaic Lakes on the west branch, and Silverwood Lake and Lake Perris on the east branch of the SWP. MWD, in turn, has over 1 million af of surface water storage in Southern California, including the new Diamond Valley Reservoir, in addition to large groundwater storage projects.

MWD and Southern California water agencies have long been active in the supply, storage, reuse, and conservation of water. MWD's recently published November 2005 Regional Urban Water Master Plan (MWD 2005 UWMP) states that, based on dry year demands, available and planned supply, and reuse and conservation programs, adequate water will be available through the planning period that extends until 2030 (MWD 2005 UWMP, II-7, II-11). MWD supply projections under this case are based on receiving 35 percent of their annual contracted amount of 2 million af of water per year from the SWP. MWD 2005 UWMP identifies actual and projected demands for water from MWD, as well as the water supplies available to meet those demands.

MWD Long-Term and Reliability Planning

MWD's framework for regional water resource planning for Southern California is the Integrated Water Resources Plan (IRP).The IRP is a long-term water resource strategy for the six-county area served by MWD, including parts of Ventura, Los Angeles, Riverside, San Bernardino, Orange, and San Diego counties. The IRP was first adopted in 1996 and was updated in 2004. It sets regional goals for the development of MWD various water resources and calls for investments in water conservation, recycling, groundwater treatment, storage, and transfers. The IRP Update showed that Southern California continued to exceed projections laid out in the original IRP and recommended development of a supply buffer of 500,000 af, half of which would come from local resources, and half through water transfers and storage programs outside MWD's service area. This supply buffer allows MWD and its member agencies to manage the uncertainties and unreliability of supplies and demands.

As part of the approval of the IRP Update, the MWD board directed staff to provide an annual report on the progress toward implementing the IRP targets. The 2007 Integrated Water Resources Plan Implementation Report was issued on October 9, 2007. MWD noted that various uncertainties exist that may affect long-term water supply for Southern California. Specifically, these issues have revolved primarily around current and future SWP supplies and operations protect endangered fisheries, as well as emerging challenges global warming and climate change. To address these uncertainties in a comprehensive manner, MWD will update the long-term IRP. Through this IRP update process, it is expected that direction to address the range of new uncertainties will be established. The MWD 2007 report demonstrates that while changes occur in all resource areas, MWD is able to maintain supply reliability through its diversified water resources portfolio.

The IRP upholds MWD's balanced approach of ensuring diversity and reliability of local and imported supplies. MWD has found that current practices of diversifying water supplies and securing supply reserves allow MWD and its member agencies to adjust to changes in demands and supplies and to maintain a high degree of reliability. Planned water supply sources include resource improvement strategies and additions currently under development by MWD.

MWD Water Surplus and Drought Management Plan

On the regional level, MWD has taken a number of actions to secure a reliable water source for its member agencies. MWD recently adopted a Water Surplus and Drought Management Plan for dealing with potential shortages that takes into consideration the impact on retail customers and the economy, changes and losses in local supplies, the investment in and development of local resources, and conservation achievements.

MWD's Water Surplus and Drought Management Plan guides MWD's supply actions under both wet and dry conditions for achieving overall water supply reliability to its member agencies. The WSDM Plan outlines various water supply conditions and corresponding actions MWD may undertake in response to serious water shortages. Under Condition 1, MWD issues a Water Supply Watch and encourages local agencies to implement voluntary dry-year conservation measures and utilize regional storage reserves. Under Condition 2, MWD issues a Water Supply Alert and calls for cities, counties, its member agencies, and all other retail water providers to implement extraordinary conservation through drought ordinances and other measures to mitigate the use of storage reserves. Under Condition 3, MWD may implement its

Water Supply Allocation Plan, which allocates available water supplies among member agencies based on factors such as impacts on retail customers, population and growth of particular member agencies, the availability of recycled water and other local supplies, conservation efforts, participation in MWD's interruptible water supply programs, and investment in MWD's facilities. Under MWD's Water Supply Allocation Plan, water would not be physically denied to an agency, but would be priced at a significant penalty level above the allocation. Development of an allocation would establish the amount of water available at the nonpenalty rate. The penalty rate is expected to be two to three times the firm rate.

On June 4, 2008, the governor of California proclaimed a statewide drought due to record-low rainfall in spring 2008 and court ordered restrictions on Delta exports (Executive Order S-06-08). Soon thereafter, the governor proclaimed a state of drought emergency in the counties of Sacramento, San Joaquin, Stanislaus, Merced, Madera, Fresno, Kings, Tulare, and Kern (June 12, 2008). On February 27, 2009, the governor proclaimed a statewide drought emergency. In response to these proclamations, MWD has not determined it necessary to implement its Water Supply Allocation Plan, but, on June 10, 2008, declared a Condition 2 water scenario and issued a Water Supply Alert, which remains in place today, calling on local agencies and residents to take immediate steps for conserving water.

Furthermore, MWD is in the process of implementing their Interim Agricultural Water Program Reduction Guidelines (IAWP). The IAWP, established in 1994, provides for the delivery of surplus water for agricultural purposes at a discounted rate. In exchange for the discount, MWD may reduce IAWP deliveries up to 30 percent prior to imposing mandatory allocations under the WSDM Plan. On October 22, 2007, the MWD officially notified its member agencies of its intention to implement a 30 percent reduction in deliveries of 2008 agricultural water supplies under its IAWP. Additional actions taken by MWD during the first half of 2008 include the adoption of a $1.9 billion spending plan, increased rates and charges, and the funding of a new reservoir to benefit Colorado River supply capabilities.

Catastrophic Supply Interruption Planning

MWD cooperated with the DWR in 2005 on a preliminary study of the potential effects of extensive levee failures in the Delta. The study investigated two of a potential range of scenarios and MWD's analysis showed that, due to its investment in local storage and water banking programs south of the Delta, it would be able to supply all firm requirements to its member agencies under both of these scenarios. However, MWD's analysis under more extreme hydrologies (a worst-case situation) showed that MWD might need to reduce firm deliveries to its member agencies by as much as 10 percent. MWD reported this analysis in the Metropolitan Water District of Southern California Regional Urban Water Management Plan, November 2005. MWD will continue to rely on the plans and polices outlined in its UWMP and IRP to address water supply shortages and interruptions (including potential shut-downs of SWP pumps) to meet water demands. MWD is engaged in planning processes to identify solutions that, when combined with the rest of its supply portfolio, should ensure a reliable long-term water supply for its member agencies.

State Water Project Reliability Planning

The California Department of Water Resources (DWR) oversees the operation of the SWP. Beginning in 2003, DWR has published a SWP Delivery Reliability Report every 2 years. The most recent edition was

the 2007 report, the final version of which was released in August 2008, which is incorporated by reference in this EIR (DWR 2008). According to the DWR reliability report, the long-term average delivery of contractual amounts of SWP water is expected to range from 63 percent under current (2007) conditions to between 66 and 69 percent under future (2027) conditions. Within that long-term average, SWP deliveries can range from 6 percent (single dry year) to 90 percent of contractual amounts under current (2007) conditions, and from 6 to 7 percent (single dry year) to 100 percent of contractual amounts under future (2027) conditions. The analyses provided in the DWR reliability report are based on 82 years of historical records for rainfall and runoff that have been adjusted to reflect the current and future levels of development in the source areas by analyzing land use patterns and projecting future land and water uses. Of key importance, the studies in the report for 2007 through 2027 conditions assume and account for current facility and institutional limitations. These limitations include:

- Water quality issues
- Fishery protections (threatened winter and spring-run salmon and steelhead trout)
- Export curtailments and other requirements under State Board Water Rights Decision 1641
- Vernalis Adaptive Management Plan as described in the 2004 Operations Criteria and Plan
- Recent court-ordered in-Delta flow targets to protect delta smelt
- Threatened longfin smelt that is related to the threatened delta smelt and whose habitat also includes the Sacramento Delta
- Potential effects of Delta levee failures and other seismic or flood events

In addition, DWR's long-term SWP delivery reliability analysis incorporates assumptions to account for potential supply shortfalls related to global climate change factors. Thus, the effects of these institutional, administrative and court-ordered reductions in SWP exports, as well as the potential effects of long-term global climate change, have been extensively analyzed and accounted for by DWR's 2007 Reliability Report.

The twenty-nine SWP contractors and water agencies throughout California utilize the reliability report in their water supply analyses, planning and reporting obligations. SWP contractors, including MWD, generally anticipate that the variability of SWP supplies may increase in the future as the contractors request their maximum allotment and as systemwide issues such as Delta exports are resolved. At the same time, however, SWP Contractors who utilize groundwater basins to recharge portions of their SWP deliveries, as well as other exchange and transfer arrangements, can plan to receive long-term average deliveries of 66 to 69 percent of their allotments. As indicated above, MWD has incorporated DWR's SWP reliability studies and analyzed several other key factors in developing its conservative estimate of long-term SWP deliveries.

Delta Smelt

The delta smelt is a federally and state-listed threatened fish species that inhabits the estuaries of the Sacramento Delta region. In May 2007, a federal court invalidated the Biological Opinion issued by the U.S. Fish and Wildlife Service (USFWS) for operations of the SWP and Central Valley Project with regard to the delta smelt (*Natural Resources Defense Council v. Kempthorne, et al.*). On August 31, 2007, the

federal court ordered interim operating rules until a new Biological Opinion is approved for the delta smelt. Under the ruling, operational limits on Delta pumping are in place from the end of December, when fish are about to spawn, until June, when the smelt migrate. On December 14, 2007, the Court issued its Final Interim Remedial Order (Final Order) that sets forth temporary restrictions on Delta exports from the SWP and CVP based on flow rates in certain significant rivers near the export facilities and information concerning the distribution and spawning status of delta smelt. Estimated potential water supply losses resulting from the Final Order were (1) loss of 9 to 29 percent (or 512,000 to 1,741,000 af), if 2007–2008 was an average water year, and (2) loss of 3 to 19 percent (or 80,000 to 627,000 af), if 2007–2008 was a dry water year. Notably, these figures represented total restrictions to the SWP and CVP combined. DWR indicated that SWP losses would be assumed to be half of any total delivery reduction. For the 2007/08 water year, actual reductions to SWP supplies are estimated to be approximately 500,000 af.

On December 15, 2008, USFWS issued a new Biological Opinion regarding the effects of CVP and SWP operations on delta smelt. According to draft information published by DWR, the new Biological Opinion will continue the type of reductions in SWP and CVP exports from the Delta that were in effect since December 2007 under the federal court. DWR has estimated that under average water year conditions, the most likely result of the new Biological Opinion is a 1 percent increase in the amount of available SWP supplies in comparison to the restrictions in the Final Order, although a worst-case scenario could result in an additional 13 percent decrease in available supplies beyond those ordered in Final Order. In the same draft information prepared by the DWR, that agency estimated that under dry water year conditions, the most likely result of the new Biological Opinion is the same type of potential restrictions as in the Final Order, although restrictions could possibly increase by 21 percent under a worst-case scenario. Potential water supply restrictions under the new Biological Opinion are dependent on factors that cannot be predicted with a high degree of certainty, including hydrologic conditions, migratory and reproductive patterns of delta smelt, and other factors affecting delta smelt abundance in the Delta. However, water agencies holding contracts to receive SWP supplies from DWR, among others, are challenging the validity of the Biological Opinion. Consequently, SWP delivery reductions as set forth by the Final Order could be put back in place pending final legal resolution of the new Biological Opinion. In light of these various factors, the degree to which SWP deliveries may be reduced under the new Biological Opinion for delta smelt remains somewhat speculative.

As indicated above, potential future reductions in SWP deliveries to MWD based on the new Biological Opinion (or Final Order) will depend on precipitation and other weather conditions affecting Delta water supplies, distribution and behavior patterns of the delta smelt, flow conditions in the Delta, and how water supply reductions are divided between the SWP and CVP. MWD is engaged in an aggressive planning process to address this decision and ensure that its overall water supply portfolio is capable of providing reliable long-term service to its member agencies. Currently, MWD continues to rely upon the plans and policies outlined in its 2005 UWMP and IRP to address water supply scenarios and meet existing and projected water demands within its service territory. Currently, the IRP update is scheduled to be completed in 2009. The planning horizon for the 2009 IRP update will be extended from 2025 to 2035. The IRP update will address water supply uncertainties related to endangered fisheries in the Sacramento Delta, consider long-term facility options on the SWP, and revisit MWD's water supply development targets and action plans in light of emerging SWP and climate change issues. The IRP is an

adaptive planning framework, and with the adopted annual implementation reporting and 5-year updating cycle, MWD and its member agencies will continue to refine and revise the resource targets as new information and technologies become available. As water demand, economics, impacts to human population, environmental circumstances, and priorities change over time, legislative and regulatory changes may occur that can increase or decrease impacts to water supply reliability.

It should be noted that other court cases have the potential to affect SWP water imports to Southern California. These include *Pacific Coast Federation of Fishermen's Association/Institute for Fisheries Resources, et al., v. Gutierrez, et al.*, (regarding impacts to winter/spring-run salmon); *Watershed Enforcers v. California Dept. of Water Resources* (alleging that the SWP was being operated without any take authorization under the California Endangered Species Act); and *State Water Contractors v. California Dept. of Fish & Game* (challenging the Dept. of Fish & Game's issuance of a take permit for longfin smelt to DWR for the operation of the SWP). In Gutierrez, remedies beyond the limitations placed on SWP operations in connection with the delta smelt in Kempthorne have been found by the court to not be necessary. In Watershed Enforcers, such additional limitations are not deemed likely, since the effects of SWP operations on protected fish are already being addressed via the Kempthorne and Gutierrez decisions. In the case of the longfin smelt litigation, no resolution is imminent, and the Department of Fish and Game's ability to enforce the terms of the take permit has been called into question. In light of the foregoing factors, potential reductions in SWP supplies resulting from the longfin smelt take permit remain speculative and unquantifiable at this time. Thus, the reductions pursuant to the Kempthorne decision remain the operative limitation on SWP reliability.

Climate Change Planning of Water Supply Availability

The DWR reliability report accounts for potential effects of future climate change on SWP deliveries through the year 2050 by examining four climate change scenarios: weak temperature warming and weak precipitation increase in California under two different models; and modest warming and modest drying under those two models.

Potential climate change impacts on regional and local water supplies and relevant information for the Chino Groundwater Basin and Santa Ana Watershed are not sufficiently developed at this time to permit the City of Chino to assess and quantify the effect of any such impact on its conclusions in this assessment. In its anticipated IRP update, MWD will address emerging challenges and questions on the planning approach with regard to global warming and climate change (MWD 2007). When the IRP update is completed, the City of Chino will review this report to determine if supplementation of the assessment is appropriate.

Water Sources in Chino

There are three types of water resources: imported water delivered from outside the City of Chino, local water from the local groundwater supply, and recycled water processed locally by the IEUA. Additionally, the MVWD provides retail potable water service to a 2007 population of about 8,600 people in portions of northwest Chino and the City of Chino Hills provides retail potable water service to a 2007 population of approximately 700 people. The following describes water sources of Chino in more detail.

Chino Groundwater Basin

The City extracts groundwater from the Chino Groundwater Basin utilizing City-owned wells. The Chino Groundwater Basin is an adjudicated basin and it is managed by the court-approved Chino Basin Watermaster. The Watermaster is guided by the provisions of the Chino Basin Judgment and subsequent agreements between the parties to the Judgment. These agreements provide for groundwater production rights and a physical solution for the operation and maintenance of the Basin. The basin has approximately 5 million af of water demand in storage and has an unused capacity to store approximately 1 million af of additional water. Environmental review to implement storage of an additional 0.5 million af was completed as part of the CBWM's OBMP. Therefore, the basin has the capacity to store an additional amount of water similar to the storage capacity of Diamond Valley Lake. The City of Chino's current water production rights, based on its assigned share of the safe yield, equal 4,034 afy.

Chino Desalter Authority:

The City of Chino receives treated groundwater for potable uses from the CDA. The CDA is a Joint Powers Authority consisting of the cities of Chino, Chino Hills, Norco, and Ontario; the Jurupa Community Services District; the Santa Ana River Water Company; IEUA; and Western Municipal Water District. The CDA operates and manages Chino Desalters I and II. These desalter facilities consist of groundwater wells in the southern portion of the Chino Basin and associated raw water pipelines, treatment facilities, pumps, and treated water transmission pipelines. Treatment includes ion exchange, air striping, reverse osmosis, blending, and disinfection, as appropriate, for each well source. The City has an agreement to purchase 5,000 afy of treated water from the CDA, which provides water to areas in and outside of IEUA's jurisdiction. The CDA treats groundwater polluted with salts, nitrates, and other constituents from a legacy agricultural activities and industry. Hence, cleaning the groundwater resource and reducing its spread downstream provides a potable water supply. Pursuant to the OBMP, the CDA is in process of an expansion plan, which would result in an additional 3,333 afy of potable water supply. The expansion would also complete hydraulic control of the basin, allowing for increased direct use and recharge of recycled water, eliminating water losses from the basin and protecting downstream users from the potential impacts of pollution migrating into the Santa Ana River.

Water Facilities Authority:

The City receives its imported water supply via WFA purchases and deliveries of SWP water. The WFA is a Joint Power Authority consisting of the cities of Chino, Chino Hills, Ontario, Upland, and the Monte Vista Water District. The SWP encompasses 22 dams and reservoirs statewide and provides up to 102,600 afy of water for domestic, commercial, and agricultural uses. SWP water comes from Lake Oroville via the Sacramento Delta and is delivered after traveling 400 miles south through the California Aqueduct. SWP water is delivered through Lake Silverwood in the San Bernardino National Forest and is treated at the WFA-operated Agua de Lejos Treatment Plant, a conventional water treatment plant. The MWD supplies raw imported SWP water to the plant via the Rialto Reach of the Foothill Feeder. MWD water is supplied through its member agency, IEUA, which then wholesales to the WFA. The treatment processes include flocculation and sedimentation, filtration, effluent distribution, and solids handling and waste washwater processing. Chlorine is used in several of these processes for disinfection, taste and odor control, algae control, and color control. The WFA's Agua de Lejos Water Treatment Plant, located

in Upland, serves Chino through a Benson Avenue pipeline connection at the north end of the City's potable water system. The WFA is currently permitted by the DPH to treat 81 million gallons per day (mgd) of imported surface water, and the City of Chino is entitled to 5.9 percent (5,353 afy) of the WFA treatment plant permitted capacity. Since the WFA-treated water is superior in quality compared to the City's well water, the imported water is stored in reservoir facilities for blending with municipal well-produced groundwater.

Recycled Water

The City currently receives approximately 4,626 afy of recycled water from IEUA. IEUA operates four regional wastewater treatment plants that produce disinfected and filtered tertiary-treated recycled water in compliance with California's Title 22 regulations. Water recycling is a critical component of the water resources management strategy for the region. The reuse of highly treated wastewater effluent is a source of water available to meet the growing non-potable water demands of the IEUA service area, including Chino. Recycled water is used to satisfy some demands that might otherwise consume potable water. Conversion of uses from potable to recycled water will conserve limited potable water supplies for those uses that require drinking water. IEUA predicts that it has sufficient system flexibility and supply to satisfy all anticipated future demands (Chino 2010b).

Water Distribution Systems

The City water system infrastructure is governed by its Water System Master Plan. The Chino Water Utility is the primarily water distributer in the City. The Chino Water Utility currently obtains water from three sources: (1) local groundwater from the Chino Groundwater Basin, produced by City-owned wells and by the Chino Basin Desalter Authority (CDA); (2) imported surface water from the Metropolitan Water District of Southern California (MWD) through the IEUA and treated by the WFA; and (3) recycled water supplied by IEUA.

Potable Water Distribution

As of 2010, the City of Chino's potable water supply adds up to 18,852 afy (Chino 2010b). The City extracts groundwater from the Chino Groundwater Basin utilizing City-owned wells. The CDA extracts its groundwater from approximately two dozen wells located in the southern portion of the Chino Groundwater Basin. The City purchases 5,000 afy of treated water from CDA.

Certain portions of the City receive water for domestic and/or non-domestic purposes from one or more of the following: Monte Vista Water District, City of Chino Hills, privately-owned wells, and other members of the Chino Basin Watermaster Agricultural Pool, including the State of California and San Bernardino County. The MVWD provides fulltime potable water service to a Chino population of approximately 8,600 persons residing in the extreme northwest portion of the City. The City of Chino Hills provides fulltime potable water service to a Chino population of approximately 700 persons located in the southwestern portion of the City that is located west of Highway 71. Both MVWD and Chino Hills receive a portion of their potable water supplies from the WFA (i.e. imported surface water) and from wells that produce local groundwater from the Chino Groundwater Basin (Chino 2010b).

Various properties throughout the City, primarily dairies and other farms, have small volume groundwater wells that produce groundwater from the Chino Groundwater Basin for private onsite uses.

The agricultural use of groundwater is monitored by the Watermaster. The agricultural community shares a common pool of groundwater production rights equal to 82,800 afy.

Nonpotable Water System

The City currently receives approximately 4,626 afy of recycled water from IEUA. IEUA operates four regional wastewater treatment plants that produce disinfected and filtered tertiary-treated recycled water in compliance with California's Title 22 regulations. The IEUA operates several treatment plants at different elevations which are connected through pumps and a transmission system for reliability. Over 70,000 af of water are produced annually by IEUA; hence, the supply far outpaces the current demand for recycled water. The IEUA also transmits recycled water to spreading basins throughout the region. The amount of recycled water recharge is regulated by the state Department of Health and the Regional Water Quality Control Board. As the CDA expands and the OBMP is fully implemented, the amount of recycled water can increase. In addition, further treatment of recycled water at the recharge point could increase the amount of recharge into the basin and thereby increase local water supplies. This option can provide additional reliability and resources not currently included in the IEUA Urban Water Management Plan (IEUA UWMP). Unused recycled water is currently discharged by IEUA into the Santa Ana River by way of Prado Dam. The amount discharged exceeds the base flow required of IEUA to be discharged pursuant to the Santa Ana River judgment, and the IEUA Master Plans consider only local reuse of the amount in excess of that judgment. The supply and demand analysis of recycled water shows that there is a sufficient supply of recycled water to meet the recycled water demands in the City (Chino 2010b).

Wastewater Collection and Treatment

The City of Chino operates and maintains its own local sewer collection system. The City's sewer collection system drains into IEUA's trunk sewers which convey the sewage to IEUA's wastewater treatment and reclamation plants for treatment.

The IEUA owns and operates a 66-mile regional interceptor system that collects and conveys wastewater from local sewers owned and operated by its member agencies, including the City of Chino.28 The IEUA sewer collection system consists of a total of 830,175 miles of pipeline and 2,809 manholes (Chino 2010b). The IEUA is organized into two service areas: the Northern Service Area (NSA) and the Southern Service Area (SSA). The SSA encompasses the City of Chino, City of Chino Hills and the New Model Colony area of Ontario. The wastewater collection and treatment services system utilizes pump stations and force mains to circulate the wastewater. There are two pump stations and two force mains: the Montclair Interceptor Pump Station and Force Main and the Prado Park Lift Station and Force Main. These facilities move the wastewater to the regional treatment plants. There are two regional treatment plants in Chino and one regional treatment plant in Ontario that serve Chino and its Sphere of Influence. They are described below.

Regional Plant 1 (RP-1) is located in the City of Ontario near the intersection of State Highway 60 and Archibald Avenue. This plant was commissioned in 1948 and has a current treatment capacity of 44 mgd. This facility serves small areas in the northern portion of Chino and primarily serves the Cities of Ontario, Rancho Cucamonga, Upland, Montclair, Fontana, and an unincorporated area of San Bernardino County.

Regional Plant 5 (RP-5) is located at the intersection of El Prado Road and Kimball Avenue. In operation since 2003, the plant is being built in phases to coincide with the ability of Regional Plant 2 to continue to treat biosolids. RP-5 currently has a capacity of 16.3 mgd, and has an actual use of 12 mgd.

The Carbon Canyon Wastewater Reclamation Facility (CCWRF) is located just west of El Prado Road and south of Chino Hills Parkway. This plant has been in operation since 1992 and includes treatment processes that provide water quality that meets Water Recycling Criteria as described in California Water Code Title 22, Chapter 3. Biosolids generated are diverted to RP-2. Plans were for the CCWRF to have a wastewater treatment capacity of 20 mgd. However, the CCWRF currently only has a capacity of 11.4 mgd and further expansion is not anticipated.

In addition to these plants, Regional Plant 2 (RP-2) provides only biosolids treatment, having been decommissioned from treatment of wastewater in 2004.

Solid Waste

Solid waste and recycling are collected in Chino through contracts with private solid waste service providers. Waste Management, Inc. contracts with the City for solid waste collection, transfer and disposal, as well as recycling services. The City of Chino does not have a Waste Delivery Agreement with the County of San Bernardino, and therefore Chino's solid waste is sent to the West Valley Material Recovery Facility and Transfer Station located in Fontana. From there, the waste goes to the El Sobrante Landfill, located in Riverside County.56 Burrtec Waste Industries (Burrtec) is responsible for solid waste collection, transfer, and disposal, as well as recycling services in Chino's SOI. Burrtec also diverts waste to the West Valley Material Recovery Facility and Transfer Station, from which it is also transferred to the El Sobrante Landfill. Construction and demolition waste is self-hauled by contractors. The West Valley Material Recovery Facility and Transfer Station has a daily intake capacity of 7,500 tons per day. El Sobrante Landfill has been accepting solid waste from Chino since 1993, and can currently accept up to 10,000 tons per day and 120,000 tons per year. The El Sobrante Landfill has a maximum permitted capacity of 184,930,000 tons and has a remaining capacity as of July 2009 of 141,744,875 tons. In 2008, there was a total of 21,112 recycled tonnage and 76,898 landfilled tonnage. The El Sobrante Landfill has an estimated closure date of 2045.

Since the year 2000, the California Integrated Waste Management Board (CIWMB) has required all jurisdictions to divert at least 50 percent of their waste from going directly to landfills (Public Resources Code Section 41780). For the year 2007, Chino's diversion rate was 61 percent.

Electricity

Electricity is provided to the City by Southern California Edison (SCE). SCE's transmission system includes 500 and 220 kilovolt (kV) transmission lines, which are generally reduced to 66 kV transmissions at transformers at substations. SCE has forecast energy demands for its service area to reach 118,497 gigawatt hours by 2016 (CEC 2007). Energy consumption per capita in 2006 for the SCE area is about 7,300 kilowatt-hours. This is forecast to remain constant through 2016 (CEC 2007).

Natural Gas

The Southern California Gas Company (TGC) provides natural gas service to the City of Chino. TGC has gas mains throughout urbanized areas of the City.

Telephone and Communications

Communication services and telephone, mobile phone, cable, and internet services, are provided by private companies in the City of Chino, including Verizon Communications, AT&T, and Time Warner Telecommunications. Cable service is provided to the City by local cable franchises, including Time Warner Cable, Comcast Cable, Cox Cable, and Charter Cable. Installation of cable services is provided by these private companies and supported by service fees.

Most Internet service providers are regulated by the California Public Utilities Commission. Broadband providers supply Internet services through cable lines or through Ethernet, a bundling of local area networks that are transmitted by fiber optics (DSL). Like cell phones, the Internet can also be provided through wireless connections. Infrastructure to support these services is therefore run over the associated local telephone and cable service provider lines.

Regulatory Framework

Utilities within the City of Chino tend to grow proportionally with the population. The following discussion of regulations helps to understand how public utilities are evaluated.

Federal

Safe Drinking Water Act

The Safe Drinking Water Act (SDWA) is the main federal law that ensures the quality of Americans' drinking water. Under SDWA, the USEPA sets standards for drinking water quality and oversees the states, localities, and water suppliers who implement those standards. SDWA was originally passed by Congress in 1974 to protect public health by regulating the nation's public drinking water supply. The law was amended in 1986 and 1996 and requires many actions to protect drinking water and its sources: rivers, lakes, reservoirs, springs, and ground water wells. (SDWA does not regulate private wells which serve fewer than 25 individuals.)

Federal Energy Regulatory Commission (FERC)

The Federal Energy Regulatory Commission (FERC) is the United States federal agency with jurisdiction over interstate electricity sales, wholesale electric rates, hydroelectric licensing, natural gas pricing, and oil pipeline rates. FERC also reviews and authorizes liquefied natural gas (LNG) terminals, interstate natural gas pipelines and nonfederal hydropower projects.

Federal Communications Commission (FCC)

The Federal Communications Commission (FCC) regulates interstate and international communications by radio, television, wire, satellite and cable in all fifty states, the District of Columbia and U.S. territories. It was established by the Communications Act of 1934 and operates as an independent U.S. government

agency overseen by Congress. Primary responsibilities of the FCC include promoting competition in broadband communications while maintaining the quality and integrity of the signal reaching the public, and ensuring broad access to telecommunications by the public even in rural areas of the United States. The FCC has oversight over telecommunications and media regulations in the United States.

State

California Code of Regulations Title 22, Chapter 15 (Water Quality General Requirements)

California Code of Regulations (CCR) Title 22, Chapter 15, requires general water quality standards for water and wastewater discharge. The law ensures that pathogens and other contamination does not enter surface water or groundwater supplies within the state

California Health and Safety Code Article 1 (Pure and Safe Drinking Water)

California Health and Safety Code Article 1, Section 116270, was established a drinking water regulatory program within the Department of Health Services and provide drinking water standards for all water purveyors and distribution systems within the state. The law also requires regular sampling and record keeping of water supplies to ensure that potable water supplies are meeting the standards.

Senate Bills 610 and 210 Water Supply Assessment and Planning

To assist water suppliers, cities, and counties in integrated water and land use planning, the state passed Senate Bill (SB) 610 (Chapter 643, Statutes of 2001) and SB 221 (Chapter 642, Statutes of 2001), effective January 1, 2002. SB 610 and SB 221 improve the link between information of water supply availability and certain land use decisions made by cities and counties. SB 610 and SB 221 are companion measures that promote more collaborative planning between local water suppliers and cities and counties.

Both statutes require detailed information regarding water availability to be provided to city and county decision makers prior to approval of specified large development projects. Both statutes also require this detailed information be included in the administrative record as the evidentiary basis for an approval action by the city or county on such projects. Both measures recognize local control and decision making regarding the availability of water for projects and the approval of projects. Under SB 610, water supply assessments (WSA) must be furnished to local governments for inclusion in any environmental documentation for certain projects (as defined in Water Code Section 10912[a]) subject to CEQA. Under SB 221, approval by a city or county of certain residential subdivisions requires an affirmative verification of sufficient water supply. SB 221 is intended as a fail-safe mechanism to ensure that collaboration on finding the needed water supplies to serve a new large subdivision occurs before construction begins.

A WSA is required for any project if it is a residential development of 500 units or more; a shopping center or business establishment project employing more than 1,000 persons or having more than 500,000 square feet of floor space; a commercial office building employing more than 1,000 persons or having more than 250,000 square feet of floor space; or an industrial, manufacturing, or processing plant or industrial park planned to house more than 1,000 persons, occupying more than 40 acres of land, or having more than 650,000 square feet of floor area. Individual development projects implemented under the Proposed Land Use Plan would be required to prepare a WSA if they meet these requirements.

California Water Code Sections 10610–10656

In 1983, the California legislature enacted the Urban Water Management Planning Act (Water Code Sections 10610–10656). The act states that every urban water supplier that provides water to 3,000 or more customers, or that provides over 3,000 af of water annually, should make every effort to ensure the appropriate level of reliability in its water service to meet the needs of its various categories of customers during normal, dry, and multiple dry years. Both SB 610 and SB 221 repeatedly identify the UWMP as a planning document that, if properly prepared, can be used by a water supplier to meet the standards set forth in both statutes. Thorough and complete UWMPs are foundations for water suppliers to fulfill the specific requirements of these two statutes. UWMPs serve as important source documents for cities and counties as they update their General Plan. Conversely, General Plans are source documents as water suppliers update the UWMPs. These planning documents are linked, and their accuracy and usefulness are interdependent (CDWR 2003). The City of Chino UWMP is a foundational document for compliance with both SB 610 and SB 221.

Assembly Bill 939—Integrated Waste Management Act

Assembly Bill (AB) 939 (Chapter 1095, Statutes of 1989), the Integrated Waste Management Act, requires, among other things, every California city and county to divert 50 percent of its waste from landfills by the year 2000. In addition, AB 939 requires each county and each city within the county to prepare a Source Reduction and Recycling Element for its jurisdiction, identifying waste characterization, source reduction, recycling, composting, solid waste facility capacity, education and public information, funding, special waste (asbestos, sewage sludge, etc.), and household hazardous waste, and a countywide siting element, specifying areas for transformation or disposal sites to provide capacity for solid waste generated in the jurisdiction that cannot be reduced or recycled for a 15-year period.

California Energy Commission (CEC)

The California Energy Commission (CEC) is the state's primary energy policy and planning agency. Created by the Legislature in 1974 the CEC has six basic responsibilities in setting state energy policy. They are:

- Forecasting Energy needs within the state
- Promoting energy efficiency and conservation by setting the appliance and building efficiency standards for the state of California
- Supporting energy research that advances energy science and technology, energy technology development, and demonstration projects
- Licensing all thermal electric power plants of 50 megawatts or larger
- Planning for and directing State responses to energy emergencies

Regional

Southern California Association of Governments (SCAG)

SCAG's Energy Planning Program focusing on renewable energy projects and energy efficiency enable the region to support state and federal energy goals while growing in accordance with SCAG's adopted

plans, such as the Regional Transportation Plan and Sustainable Communities Strategy, Compass Growth Vision, and Regional Comprehensive Plan.

County of San Bernardino Solid Waste Management Division (SWMD)

The County of San Bernardino Solid Waste Management Division (SWMD) is responsible for the operation and management of the County of San Bernardino's solid waste disposal system which consists of five regional landfills and nine transfer stations. SWMD administers the County's solid waste handling franchise program and the refuse collection permit program which authorizes and regulates trash collection by private haulers.

Regional Urban Water Management Plan

The Inland Empire Utilities Agency (IEUA) prepared the 2010 Regional Urban Water Management Plan. IEUA supplies water to the western portion of San Bernardino County. This document states the goals, objectives, and strategies to maintain water for the IEUA service area in the future and complies with the Urban Water Management Planning Act. The Metropolitan Water District of Southern California (MWD), Chino Basin Water Master, Chino Basin Desalter Authority and retail agencies were consulted.

Water Facilities Authority Urban Water Management Plan

The Water Facilities Authority (WFA) prepared the 2010 Regional Urban Water Management Plan. The UWMP serves as a companion document to the IEUA 2010 Regional Urban Water Management Plan. The WFA is responsible for imported water treatment and distribution to its member agencies in southwest San Bernardino County, which includes the City of Chino service area. The WFA 2010 Urban Water Management Plan addresses current and future projected water supplies and demands in the region.

Local

City of Chino Urban Water Management Plan

The City of Chino Urban Water Management Plan (UWMP) was prepared by the City of Chino in 2010 to fulfill the requirements of the Urban Water Management Planning Act. The UWMP was prepared by Chino's Public Works Department and Planning Department. The UWMP addresses regional water supply trends, water conservation and water use efficiency supplies policies to ensure sufficient water supply.

Water System Master Plan Update 2004

The City completed a Water System Master Plan Update in 2004, which evaluated existing and future water demands. In particular, the Master Plan Update revised the water demands of the California Institution for Men; revised the water demands of Subareas 1 and 2; and updated the Capital Improvement Program (CIP) through 2030. The average daily demand for water in 2004 was found to be 14.5 mgd. A phasing plan, including costs, was included for the recommended improvements of the CIP. These improvements included new pipes, new wells, construction of water treatment facilities, and backup power supplies.

Monte Vista Water District Urban Water Management Plan

The Monte Vista Water District (MVWD) prepared its UWMP in 2010. The MVWD receives water from the Chino Groundwater Basin, from the State Water Project via the IEUA, and from recycled water supplied by the IEUA. The UWMP finds that water supply is expected to be sufficient to meet demand in through the year 2030, even in multiple dry-year scenarios.

Chino Basin Recharge Master Plan

The Recharge Master Plan Phase II Report is a part of the Optimum Basin Management Program that was prepared for the Chino Basin Watermaster in 2001. The purpose of this Phase II Report is to increase groundwater recharge within the Chino Basin. Three potential recharge water sources are stormwater, recycled water and imported water. The estimated average annual stormwater and potential recycled water recharge by year 2020 is 18,790 to 23,700 afy, while for imported water it is 81,800 to 122,100 afy. The Phase II Report also recommends improvements to facilities, as well as identifies innovative stormwater retention concepts. Improvements for stormwater recharge consist of earthwork, new basin inlets or modifications to existing ones, and new or modified basin outlets. Improvements for recycled water discharge include inlet structures, conveyance facilities, and turnouts from the proposed IEUA Regional Recycled Water Distribution System. For imported water recharge, improvements include construction of inlet structures, conveyance facilities, and other improvements. To facilitate these improvements a Chino Basin Recharge Water Implementation Committee was established.

Chino Municipal Code

City of Chino Municipal Code Title 13 (Waters, Sewers, and Utilities) provides standards and regulations concerning water conservation, water and wastewater infrastructure, utilities, and drainage systems. This chapter establishes procedures, specifications, and limitations for the safe and orderly development and operation of sewers, stormwater drainage, and recycled water facilities and systems in the City's service area.

City of Chino Municipal Code Title 8 (Health and Safety), Chapter 16 (Refuse Collection), ensures that the City complies with state law regarding solid waste management, including the accumulation, collection, removal, and disposal of solid waste. The code prescribes regulations that reduce waste generation, promote reuse, and requiring solid waste collection for recycling and composting.

City of Chino Municipal Code Title 20 (Zoning), Chapter 22 (Telecommunications Facilities), establishes a consistent set of standards to regulate the placement and design of wireless communication facilities. These standards are intended to protect and promote public health, safety, community welfare and the unique visual character of the City of Chino by encouraging the orderly development of wireless communication infrastructure.

Chino General Plan

The Chino General Plan policies that are applicable to the development of infrastructure pertinent to utilities and service[19] systems include:

Policy OSC-4.2 **P2.** The City shall collaborate with local energy suppliers and distributors to establish energy conservation programs, Energy Star® appliance change-out programs, rebates, vouchers, and other incentives to install energy efficient technology and products.

Policy OSC-4.1 **P2.** The City shall encourage developers to offer buyers of new homes the option of having solar panels incorporated.

Policy OSC4.1 **P3.** The City shall encourage solar-oriented design, green roofs, and passive solar heating and cooling in all new residential, commercial and civic development.

Policy OSC-4.1 **P11.** The City shall protect solar access by limiting the blockage of buildings from sunlight by other buildings and structures.

Policy OSC-4.1 **P4.** The City shall require that deciduous trees be planted on the south and west-facing sides of new buildings to reduce energy usage.

Policy OSC-4.3 **P8.** Parking lots shall be landscaped, including shade trees, to create an attractive pedestrian environment and reduce the impact of heat islands.

Policy OSC-6.1 **P2.** The City shall actively inspect nonresidential buildings and enforce State requirements for cool roofs on nonresidential reroofing projects

Policy OSC-4.1 **P7.** The City shall require that all new residences sold with appliances install all Energy Star-Rated appliances. All new residences shall use compact florescent lights in all standard light installations. Installation of these measures shall be confirmed.

Policy OSC-4.1 **P6.** All new public buildings constructed by the City shall adhere to green building standards and meet the U.S. Green Building Council's LEED certifications for green buildings, or an equivalent standard.

Policy PFS-12.1 **P1.** The City shall require mandatory trash, recycling, and green waste pick up as a means to ensure a safe, sanitary environment.

Policy PFS-12.1 **P3.** The City shall strive to meet or exceed the State's goal of diverting 50% of all solid waste from landfills.

Policy PFS-12.1 **P4.** The City shall promote the redesign, reuse, composting, and shared producer responsibility of discarded material.

Policy PFS-12.1 **P5.** The City shall encourage local businesses to expand their recycling and composting efforts and to reduce packaging of products manufactured in the City.

Policy OSC-4.2 **P2.** The City shall collaborate with local energy suppliers and distributors to establish energy conservation programs, Energy Star® appliance change-out

[19] These policies are not a complete listing of all policies contained in the General Plan; those policies that would be most applicable to the proposed project are included here.

programs, rebates, vouchers, and other incentives to install energy efficient technology and products.

Policy PFS-7.1 **P2.** The City shall establish water demand reduction standards for new development and redevelopment to reduce per capita and total demand for water.

Policy PFS-7.1 **P4.** The City shall review proposed new development and significant redevelopment to determine whether all feasible water conservation measures are being implemented.

Policy PFS-7.1 **P5.** The City shall implement cost effective water conservation programs that improve water-use efficiency, reduce water demand, and preserve the City's supplies.

Policy PFS-7.1 **P3.** The City shall review proposed irrigation systems to ensure they provide required water efficiency.

Project Impact Evaluation

Thresholds of Significance

The following thresholds of significance are based on the 2012 CEQA Guidelines Appendix G. For purposes of this EIR, implementation of the San Bernardino County Regional GHG Reduction Plan might have a significant adverse impact on utilities/service systems if it would do any of the following:

- Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board
- Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which would cause significant environmental effects
- Require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which would cause significant environmental effects
- Not have sufficient water supplies available to serve the project from existing entitlements and resources, or need new or expanded entitlements
- 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
- Be served by a landfill with insufficient permitted capacity to accommodate the project's solid waste disposal needs
- Not comply with federal, state, or local statutes and regulations related to solid waste

Analytic Method

The programs and measures contained in the Regional Reduction Plan were compared to applicable utility infrastructure policies and capacity to determine if any inconsistency exists.

Effects Not Found to Be Significant

Threshold	Would the project exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?

Implementation of the Regional Reduction Plan includes water conservation strategies, such as low flow toilets, and more efficient water using appliances such as dishwashers in new residential and commercial buildings along with existing building retrofit incentives to conserve water use. These water conservation strategies will reduce the amount of wastewater going to the IEUA wastewater treatment facilities but will not change the treatment process at those facilities. The quality of wastewater is overseen by two agencies, the Santa Ana Regional Water Quality Control Board (RWQCB) and the California Department of Public Health (CDPH). The Santa Ana RWQCB has regional permitting authority over water quality issues and the CDPH oversees standards and health concerns (MWD 2005). California Code of Regulations Title 22 provides the regulatory setting for drinking water quality in California and is followed by these agencies when they assess water quality. The wastewater treated in all of IEUA's regional plants meets or exceeds the standards of water quality set by CCR Title 22 (IEUA 2005). Therefore, there would be ***no impact***. No further analysis is required.

Threshold	Would the project require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which would cause significant environmental effects?

Implementation of the Regional Reduction Plan includes water conservation strategies, such as water-efficient landscaping, low flow toilets, and more efficient water using appliances such as dishwashers in new residential and commercial buildings along with existing building retrofit incentives to conserve water use. The Regional Reduction Plan also includes the retrofitting of existing water and wastewater treatment facilities to more energy efficient equipment at the treatment facilities but does not increase capacity or the need for additional water treatment. In fact, implementation of the Regional Reduction Plan will reduce the need for water and wastewater treatment through the various water conservation strategies. Therefore, there would be ***no impact***. No further analysis is required.

Threshold	Would the project require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which would cause significant environmental effects?

New stormwater drainage facilities would be needed, if a project increased impervious surfaces causing additional runoff or a project changed the surface flow in a way that required stormwater new drainage facilities. However, implementation of the Regional Reduction Plan would not result in a substantial (if any) increase in impervious surfaces in the City. The Proposed Project would facilitate development in areas where current or planned future infrastructure exists as provided in the Chino General Plan. These areas are already developed with impervious surfaces. The Proposed Project would not to substantially change the drainage patterns on any site within the City. The impact would be ***less than significant***. No mitigation is required.

Threshold	Would the project have sufficient water supplies available to serve the project from existing entitlements and resources, or need new or expanded entitlements?

Implementation of the Regional Reduction Plan includes water conservation strategies, such as water-efficient landscaping, low flow toilets, and more efficient water using appliances such as dishwashers in new residential and commercial buildings along with existing building retrofit incentives to conserve water use. The net result of these measures is the reduction in water consumption. Therefore, the Regional Reduction Plan results in better management of existing water supplies within the City. For these reasons, the Regional Reduction Plan would have a beneficial impact on water supplies and impacts to water supply would be ***less than significant***. No mitigation is required.

Threshold	Would the project result in a determination by the wastewater treatment provider that serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

Implementation of the Regional Reduction Plan includes water conservation strategies, such as low flow toilets, and more efficient water using appliances such as dishwashers in new residential and commercial buildings along with existing building retrofit incentives to conserve water use. These water conservation strategies will reduce the amount of wastewater going to wastewater treatment facilities. Therefore, impacts would be ***less than significant***. No mitigation is required.

Threshold	Would the project be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?

Implementation of the Regional Reduction Plan includes solid waste diversion that would reduce the amount of waste currently going to landfills. Therefore, impacts would be ***less than significant***. No mitigation is required.

Threshold	Would the project comply with federal, state, or local statutes and regulations related to solid waste?

Implementation of the Regional Reduction Plan includes solid waste diversion. Recycling of solid waste as part of the solid waste diversion would comply with all federal, state, and local statutes and regulations related to the recycling of solid waste. Therefore, impacts would be ***less than significant***. No mitigation is required.

Cumulative Impacts

Because the Regional Reduction Plan does not create significant impacts to utilities and service systems at a project level, implementation of the Regional Reduction Plan will not create impacts that are cumulatively considerable. Therefore, ***cumulative impacts would be less than significant***.

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4.3.18 Mandatory Findings of Significance

Under the California Environmental Quality Act (CEQA), an EIR must be prepared when certain specified impacts might result from construction or implementation of a project. This EIR has been prepared for the San Bernardino County Regional GHG Reduction Plan to fully address all of the Mandatory Findings of Significance, as described below.

Thresholds of Significance

The following thresholds of significance are based on the 2012 CEQA Guidelines Appendix G. For purposes of this EIR, implementation of the San Bernardino County Regional GHG Reduction Plan might have a significant adverse impact on mandatory findings of significance if it would do any of the following:

- Have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory
- Have impacts that are individually limited, but cumulatively considerable ("cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)
- Have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly

Degradation of the Environment

Under CEQA Guidelines Section 15065(a), a finding of significance is required if a project "has the potential to substantially degrade the quality of the environment." In practice, this is the same standard as a significant effect on the environment, which is defined in CEQA Guidelines Section 15382 as "a substantial or potentially substantial adverse change in any of the physical conditions within the area affected by the project including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic or aesthetic significance."

This EIR, in its entirety, addresses and discloses all potential environmental effects associated with construction and operation of the proposed project, including direct, indirect, and cumulative impacts in the following resource areas:

- Aesthetics
- Agriculture/Forestry Resources
- Air Quality
- Biological Resources
- Cultural Resources
- Geology/Soils

- Greenhouse Gas Emissions
- Hazards/Hazardous Materials
- Hydrology/Water Quality
- Land Use/Planning
- Mineral Resources
- Noise
- Population/Housing
- Public Services
- Recreation
- Transportation/Traffic
- Utilities/Service Systems

As summarized in Table 2-22 (Summary of Mitigation Measures) and Table 4.3-5 (Summary of Environmental Impacts of Implementing Local Reduction Measures in Chino), this EIR discloses all potential environmental impacts, the level of significance prior to mitigation, project requirements that are required by law or are incorporated as part of the project description, feasible mitigation measures, and the level of significance after the incorporation of mitigation measures.

Long-Term Impacts

As described in CEQA Guidelines Section 15065(a)(2), a lead agency shall find that a project might have a significant effect on the environment where there is substantial evidence that the project has the potential to achieve short-term environmental goals to the disadvantage of long-term environmental goals. Section 5.1 (Significant Irreversible Environmental Effects) of this document addresses the short-term and irretrievable commitment of natural resources to ensure that the consumption is justified on a long-term basis. In addition, Section 5.2 (Growth-Inducing Impacts) identifies any long-term environmental impacts caused by the proposed project with respect to economic or population growth. Lastly, Section 5.4 (Significant Environmental Effects That Cannot Be Avoided if the Proposed Project is Implemented) identifies all significant and unavoidable project-related impacts that could occur.

Cumulative Impacts

A cumulative impact analysis is only provided for those thresholds that result in a less-than-significant or significant and unavoidable impact. A cumulative impact analysis is not provided for Effects Found Not to Be Significant, which result in no project-related impacts.

Under CEQA Guidelines Section 15065, a lead agency shall find that a project might have a significant effect on the environment where there is substantial evidence that the project has potential environmental effects that are individually limited, but cumulatively considerable. As defined in CEQA Guidelines Section 15065(a)(3), cumulatively considerable means "that the incremental effects of an individual project are significant when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects." Cumulative impacts are addressed for each of the environmental topics listed above and are provided in Sections 4.3.1 through 4.3.17 of this EIR.

Impacts on Species

Under CEQA Guidelines Section 15065(a)(1), a lead agency shall find that a project might have a significant effect on the environment where there is substantial evidence that the project has the potential to (1) substantially reduce the habitat of a fish or wildlife species; (2) cause a fish or wildlife population to drop below self-sustaining levels; or (3) substantially reduce the number or restrict the range of an endangered, rare, or threatened species. Section 4.3.4 (Biological Resources) of this EIR fully addresses impacts related to the reduction of the fish or wildlife habitat, the reduction of fish or wildlife populations, and the reduction or restriction of the range of special-status species.

Impacts on Historical Resources

CEQA Guidelines Section 15065(a)(1) states that a lead agency shall find that a project might have a significant effect on the environment where there is substantial evidence that the project has the potential to eliminate important examples of a major period of California history or prehistory. Section 15065(a)(1) amplifies Public Resources Code (PRC) Section 21001(c) requiring that major periods of California history are preserved for future generations. It also reflects the provisions of PRC Section 21084.1 requiring a finding of significance for substantial adverse changes to historical resources. CEQA Guidelines Section 15064.5 establishes standards for determining the significance of impacts to historical resources and archaeological sites that are a historical resource. Section 4.3.5 (Cultural Resources) of this EIR (which is supported by a Cultural Resources Technical Report) fully addresses impacts related to California history and prehistory, historic resources, archaeological resources, and paleontological resources.

Impacts on Human Beings

Consistent with CEQA Guidelines Section 15065(a)(4), a lead agency shall find that a project might have a significant effect on the environment where there is substantial evidence that the project has the potential to cause substantial adverse effects on human beings, either directly or indirectly. Under this standard, a change to the physical environment that might otherwise be minor must be treated as significant if people would be significant affected. This factor relates to adverse changes to the environment of human beings generally, and not to effects on particular individuals. While changes to the environment that could indirectly affect human beings would be represented by all of the designated CEQA issue areas, those that could directly affect human beings include air quality, geology/soils, hazards/hazardous materials, hydrology/water quality, noise, population/housing, public services, transportation/traffic, and utilities/service systems, which are addressed in Sections 4.3.3, 4.3.6, 4.3.8, 4.3.9, 4.3.12, 4.3.13, 4.3.14, 4.3.16, and 4.3.17 of this EIR, respectively.

References

Kostka, Stephan L. and Michael H. Zischke. 2005. *Practice under the California Environmental Quality Act*.

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