SAN BERNARDINO
ASSOCIATED GOVERNMENTS

SAN BERNARDINO COUNTY REGIONAL GREENHOUSE GAS EMISSIONS INVENTORIES AND REDUCTION PLAN

Environmental Impact Report

SCH No. 2012111046

Volume V: Draft EIR (Section 4.4 [City of Chino Hills])

Prepared for

Governments
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4.4 CITY OF CHINO HILLS

4.4.0 Introduction to the Analysis

This section of the EIR analyzes the potential environmental effects in the City of Chino Hills from implementation of the Regional Reduction Plan. The City is located in the far southwest corner of San Bernardino County, just southeast of the City of Chino, in close proximity to major freeways connecting the region (Figure 4.4-1 [Location Map]).

The predominant development pattern in the City is the clustering of residential tracts within defined development areas with the steeper topography set aside as open space. Most of the developable residential lands are built out. Commercial uses and services are concentrated along the major thoroughfares within the City. The City borders Chino Hills State Park. The Chino Hills State Park Reserve dominates the southern portion of the City, accounting for approximately 14,102 acres or 2.67 square miles of the City's approximately 46-square-mile planning area.

The population of Chino Hills in 2010 was 74,799 (74,571 in 2008), making Chino Hills the ninth largest city in San Bernardino County. Population and employment are expected to grow modestly by 2020, by 3 percent and 12 percent, respectively, over 2008 baselines.

Table 4.4-1 (Socioeconomic Data for Chino Hills) presents socioeconomic data for Chino Hills including population, housing (single-family and multifamily), and employment (agricultural, industrial, retail, and nonretail).

Table 4.4-1 Socioeconomic Data for Chino Hills

Category	*2008*	*2020*
Population	74,571	76,558
Housing (du)	22,870	23,999
Single-Family (du)	19,061	19,964
Multifamily (du)	3,809	4,035
Employment (jobs)	9,302	10,452
Agricultural (jobs)	35	78
Industrial (jobs)	1,166	1,554
Retail Commercial (jobs)	3,167	3,253
Nonretail Commercial (jobs)	4,933	5,567

du = dwelling unit

Two documents are used in reviewing the potential environmental impacts and mitigation within the City of Chino Hills from implementation of the Regional Reduction Plan. The first document is the Chino Hills General Plan, which is the planning document for the City and includes the required General Plan elements and General Plan goals and policies. Within the General Plan 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 second document is the Regional Reduction Plan City of Chino Hills chapter that describes the reduction measures and reduction targets chosen by the City of Chino Hills. This document is the proposed project as it pertains to the City of Chino Hills.

Chino Hills General Plan

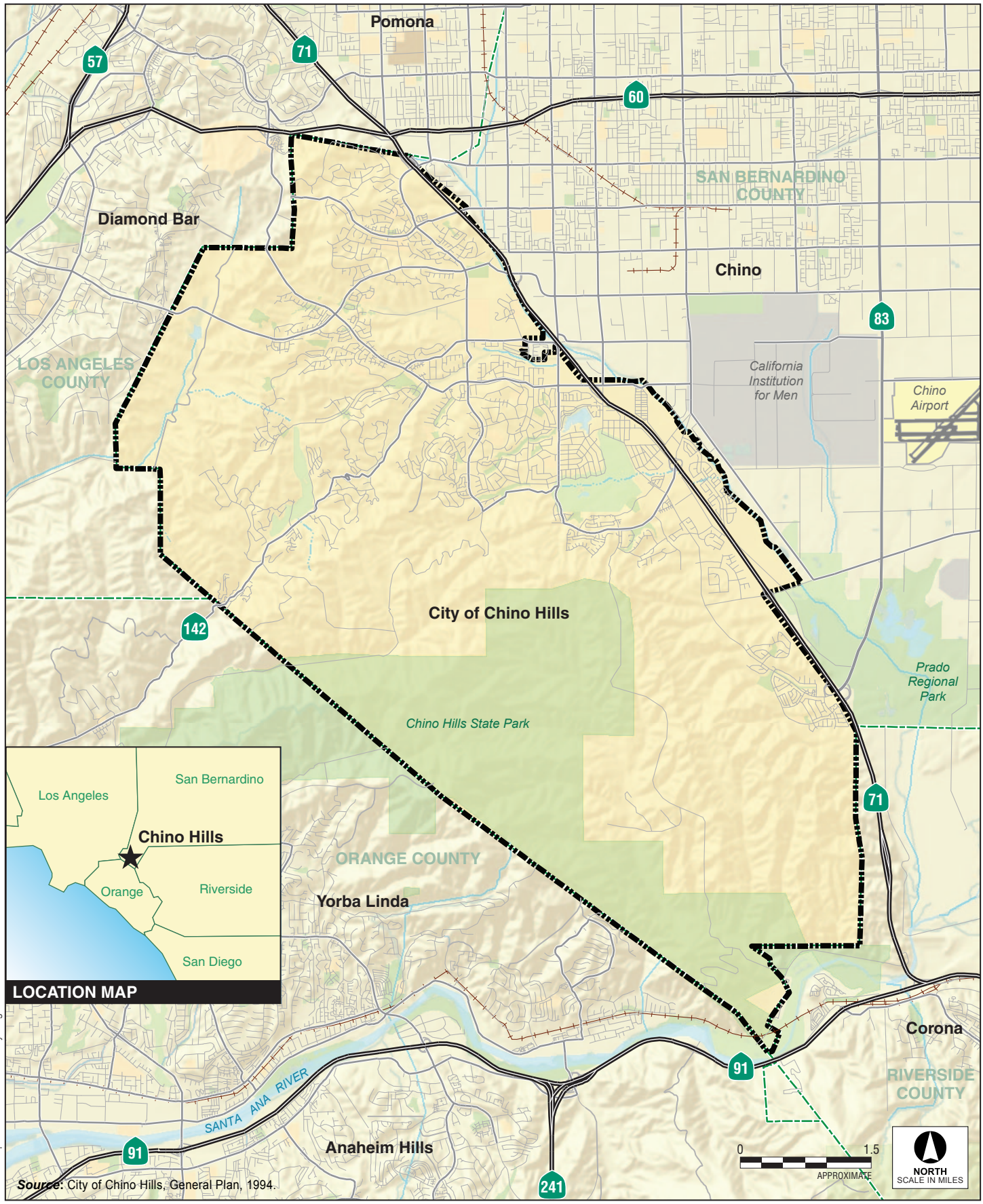
The Chino Hills General Plan is a broad framework for planning the future of the City of Chino Hills. It is the official policy statement of the City Council to guide the private and public development of the City in a manner to gain the maximum social and economic benefit to the citizens. All other City codes and standards, including the Development Code, must be consistent with the General Plan.

The Chino Hills General Plan contains the seven elements required under California planning law: Land Use, Circulation, Housing, Conservation, Open Space, Noise, and Safety. In addition to the required elements, State law allows optional elements which address specific issue areas within a jurisdiction. The Chino Hills General Plan consists of an integrated and internally consistent set of goals, objectives; and policies that address a number of issues including land use, circulation, housing, community design, parks and recreation, economic development, public facilities, conservation, open space, public safety, seismic safety, scenic highways-, noise, and air quality. These issue areas are discussed within the seven required elements and an Economic Development Element. The General Plan recognizes there is a linkage between land use and transportation decisions that can affect the quality of life in the City. The Circulation Element provides policy guidance for making transportation related decisions.

The Chino Hills General Plan policies that are relevant to the Regional Reduction Plan implementation are listed in Table 4.4-2 (Chino Hills General Plan Policies).

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

The City of Chino Hills has selected a goal to reduce its community GHG emissions to a level that is 20 percent below its 2008 GHG emissions level by 2020. The City will meet and exceed this goal through a combination of state (~85 percent) and local (~15 percent) efforts. The City actually exceeds the goal with only state/county level actions (112 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 Hills' on-road and building energy sectors in 2020. An additional reduction of 19,389 metric tons (MT) of carbon dioxide equivalents (CO_2e) will be achieved primarily through the following local measures, in order of importance: Implement SBX 7-7 (Water-4); Solar Installation for Existing Housing (Energy-7); and Equipment Upgrades at Wastewater Treatment Plants (Wastewater-2). Chino Hills' Plan has the greatest impacts on GHG emissions in the building energy, on-road transportation, and water conveyance sectors.



Source: City of Chino Hills, General Plan, 1994.

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Figure 4.4-1
Location Map

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Table 4.4-2 Chino Hills General Plan Policies

Policy No.	*Policies*
	LAND USE ELEMENT
3-2	Concentrate major business park and commercial uses, which represent a potential employment base, near the Chino Valley Freeway corridor.
3-7	Residential and regional employment centers shall be linked through roadway extensions and through implementation of transportation management policies contained in the Circulation Element.
3-8	Work with local agencies and jurisdictions to promote employment growth coordinated with the availability of adequate housing and transportation.
	HOUSING ELEMENT
1.1	Provide a variety of residential opportunities in the City, including large lot estates, low density single- family homes, medium density townhomes, and higher density condominiums and apartments.
3.3	Encourage the use of energy conservation devices and passive design concepts which make use of the natural climate to increase energy efficiency and reduce housing costs.
	CIRCULATION ELEMENT
2-1	Achieve and maintain Level of Service "D" on all roadway links and at all roadway links and at all roadway intersections, with the exception of intersections within.1 /2 mile of the State Route 71 Expressway/ Freeway, where Level of Service "E" shall be maintained. Level of Service "D" is defined as 90 percent of capacity. Level of Service "E" is defined 100 percent of capacity. Capacity is defined as the maximum volume that can be carried on a roadway link or intersection in one hour.
2-6	Work with local, regional, and state agencies to ensure that planned circulation improvements are compatible with and contribute to the effectiveness of the regional transportation system.
2-7	Ensure, through the use of Environmental Impact Reports and mitigation requirements, that discretionary development projects do not cause roadway congestion in excess of acceptable levels of service within Chino Hills, or on CMP roadway links or intersections within five miles of the projects.
2-8	The City will maintain close coordination with Caltrans and the regional agencies to ensure the timely design and construction of important regional roadways such as the Chino Valley Freeway, Soquel Canyon Parkway, and Tonner Canyon Road.
2-14	Work with Omnitrans and other bus providers to expand transit routes serving Chino Hills and the surrounding communities.
2-15	Establish one or more park-and-ride lots to be located near freeway interchanges, and require secure and easily accessible park-and-ride facilities.
2-16	Require bus turn-outs and shelters in residential, commercial, and industrial public use areas.
2-17	Adopt a citywide trip reduction ordinance, consistent with San Bernardino County CMP requirements, to reduce traffic congestion and improve air quality.
	CONSERVATION ELEMENT
Natural Setting	
1-4	In canyon areas committed to development, emphasize the retention of natural topographic features, and require low visual profiles and dense vegetation for buildings.
Biological Resources	
2-1	Ensure that the development review process is sensitive to the preservation of significant ecological areas, riparian habitats, wildlife corridors, and "ecotones" {areas characterized by overlapping vegetation communities such as where a woodland meets grassland) on a project-specific and cumulative basis.
2-3	For residential projects that fall within areas of ecological significance {as identified in the General Plan Environmental Impact Report), continue to require additional biological analysis during the development review process.

Table 4.4-2 Chino Hills General Plan Policies

Policy No.	*Policies*
2-4	Trees which in the opinion of the City function as an important part of the City's or a neighborhood's aesthetic character may not be removed without specific permission from the City, regardless of their location.
Water Usage and Conservation	
3-1	Use reclaimed water for non-potable water supplies (e.g., landscaping) wherever economically feasible and not precluded by public health considerations. Reclaimed water shall meet the Regional Quality Control Board requirements and the latest requirements of the Wastewater Reclamation Criteria (Title 22, Division 4) of the State Department of Health Services.
3-2	Evaluate the water conservation potential of individual projects according to the landscape policies included in the Land Use Element.
Air Quality	
4-1	Reduce air pollution through coordinated land use, transportation, and energy use planning.
4-2	Endorse regional and local air quality and transportation management plans in order to reduce air pollution emissions and vehicle trips.
4-3	Locate multi-family development close to commercial areas to encourage pedestrian rather than vehicle traffic.
4-4	Develop a balance of land uses within the city to promote a reduction of distance between residence and workplace.
4-5	Develop neighborhood parks close to concentrations of homes to encourage residents to walk to public recreation.
4-6	Provide commercial areas that are conducive to pedestrian and bicycle circulation.
4-7	Develop a coordinated system of pedestrian pathways.
4-8	Encourage bike paths and lanes to reduce vehicle travel and ·air pollution. Coordinate these efforts with property owners and responsible jurisdictions. Design bike paths and lanes according to national standards and uniform practices.
4-9	Encourage the use of energy conservation devices in project design and construction to increase energy efficiency and decrease pollution from distant electrical power plants and on-site natural gas use.
4-10	Reduce vehicle trips through incentives, regulations, and/or transportation demand management (TDM) programs. (See Circulation Element.)
4-11	Reduce total vehicle miles traveled (VMT) through incentives, regulations, and or transportation demand management (TDM) programs. (See Circulation Element.)
4-12	Promote modified work schedules which reduce peak-period auto travel.
4-13	Participate in efforts to achieve increased designation, construction, and operation of high-occupancy vehicle (HO VJ lanes on local freeways.
4-14	Promote all forms of transit serving the city and the urbanized portions of San Bernardino, Riverside, Los Angeles and Orange counties, including light rail and commuter rail service.
4-15	As required by the South Coast Air Quality Management District, encourage employer rideshare and transit incentive programs by local businesses.
4-16	Encourage businesses to alter truck delivery routes and local delivery schedules to off-peak hours.
4-17	Implement citywide traffic flow improvements outlined in the Circulation Element.
4-18	Support to the extent possible State and federal legislation which would improve vehicle/ transportation technology and cleaner fuels.
4-19	Implement land use policy contained in the Land Use Element toward achieving jobs/housing balance goals.
4-20	Integrate air quality planning with the land use and transportation process by encouraging the use of alternative transportation modes and by promoting jobs/housing balance, both of which will reduce vehicle trips.

Table 4.4-2 Chino Hills General Plan Policies

Policy No.	*Policies*
Energy Conservation	
5-1	Conserve energy resources through use of available technology and conservation practices.
5-2	Encourage innovative site planning and building designs which minimize energy consumption by taking advantage of sun and shade patterns, prevailing winds, landscaping, and building materials.
5-3	Encourage new development and existing structures to install energy saving features beyond those required under State Title 24 energy regulations.
Solid Waste Management	
6-1	Implement the City's Source Reduction and Recycling Element as required by the California Integrated Waste Management Act. Annually review the element's effectiveness.
6-3	Require new developments to incorporate recycling locations into their sites.
Cultural Resources	
9-1	Preserve existing, and continue to research potential, cultural resources in the city.
9-2	For development proposed in areas identified in the records search and field survey, require a cultural resource investigation (including mitigation) by a qualified professional.
9-3	Require implementation of CEQA Guidelines Supplementary Document J (Archaeological Impacts) in the event that cultural resources are discovered during excavation for a project.
Public Facilities and Services	
10-1	Phase development, public facilities, except schools, and infrastructure in conjunction with public entities to ensure that adequate facilities and infrastructure are available before occupancy.
PARKS, RECREATION, AND OPEN SPACE ELEMENT	
Open Space	
1-3	Protect prominent ridgelines and knolls in their natural condition.
1-4	Protect native trees and cliffsides because they provide habitat for wildlife such as birds that keep the rodent population in check and add to the aesthetic value of the open space.
1-13	When it is consistent with good management practice, plant new vegetation that is compatible with native plant communities of the specific area.
Facilities	
2-11	Preserve the historical, scenic and cultural heritage sites of the community and its environs.
2-13	Locate the community centers where they are accessible to public transportation systems.
Trails	
3-1	Provide a multi-use trail system that safely accommodates bicycles, hikers, and equestrians.
3-2	Integrate the planning for the trail network with the planning for streetscapes, parks, and open space.
3-9	Whenever possible, provide trail connections to regional trails, local trails, and recreation facilities in adjacent communities.
Aesthetic Environment	
6-3	Promote use of drought tolerant and native plant material where appropriate in parks.
Resource Management	
7-3	Protect and carefully maintain the landscape to foster its value for air pollution mitigation, fire safety, wildlife habitat and recreation activities.

Table 4.4-2 Chino Hills General Plan Policies

Policy No.	*Policies*
7-6	Require all construction to meet City Landscape Standards.
7-9	Design park facilities to minimize water use and maintenance demands.
7-10	Save water, control maintenance costs, reduce trash, and economize wherever possible through design, construction and management without sacrificing the quality of the landscape.
7-11	Follow water conservation principles in all aspects of landscape maintenance including plant selection and development of irrigation systems.
7-12	Consider using reclaimed water for irrigation of City landscapes when this source of water becomes available.
NOISE ELEMENT	
1-5	Utilize Transportation Demand Management measures (TDM to decrease congestion along major roadways, and at major intersections. (See the Circulation Element Plan Section).
1-13	Ensure that equipment, machinery, fan, and air conditioning noise does not exceed specified levels, established in the City's Noise Ordinance.
ECONOMIC DEVELOPMENT ELEMENT	
3-1	Create a broad range of employment opportunities for Chino Hills residents which are compatible with the community's low density residential character and the skills and-education of Chino Hills' workforce.
3-2	Concentrate major business park and commercial uses, which represent a potential employment base, near the Highway 71 corridor.
3-6	Work with local agencies and jurisdictions to· promote employment growth coordinated with the availability of adequate housing and transportation.

SOURCE: City of Chino Hills, *City of Chino Hills General Plan* (1994, as amended through 2008).

Figure 4.4-2 (Emissions Reduction Profile for Chino Hills) shows Chino Hills'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., 20 percent below the 2020 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 (~85 percent) of the total reductions needed to achieve the 2020 target.

Figure 4.4-3 (Emissions by Sector for Chino Hills) 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 4.4-3 (Emission Reduction by Sector for Chino Hills) 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 Hills exceeds its emissions reduction goal. Emissions sectors with the greatest percent reduction include the building energy, on-road transportation, and water conveyance sectors.

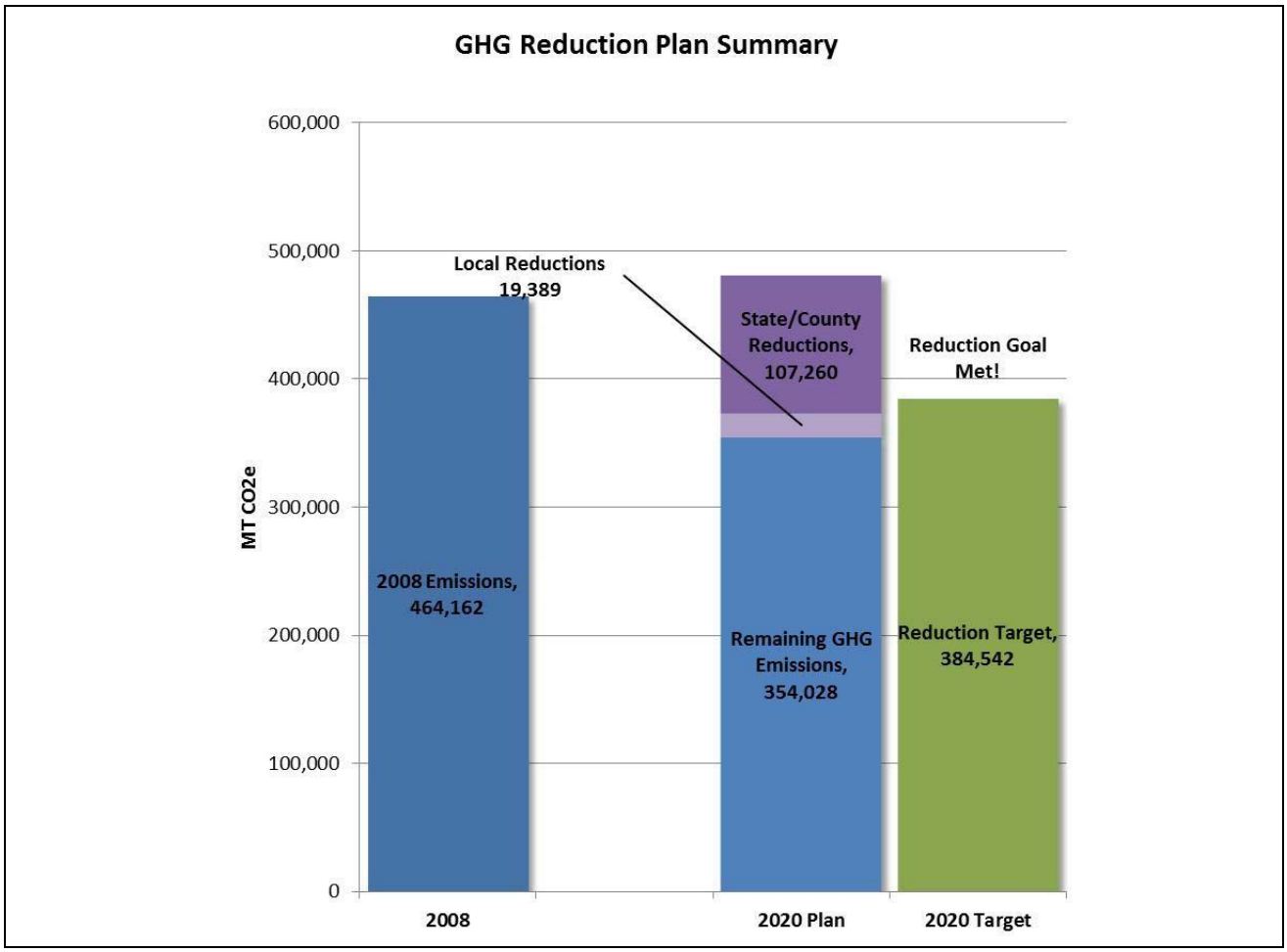

Figure 4.4-2 Emissions Reduction Profile for Chino Hills

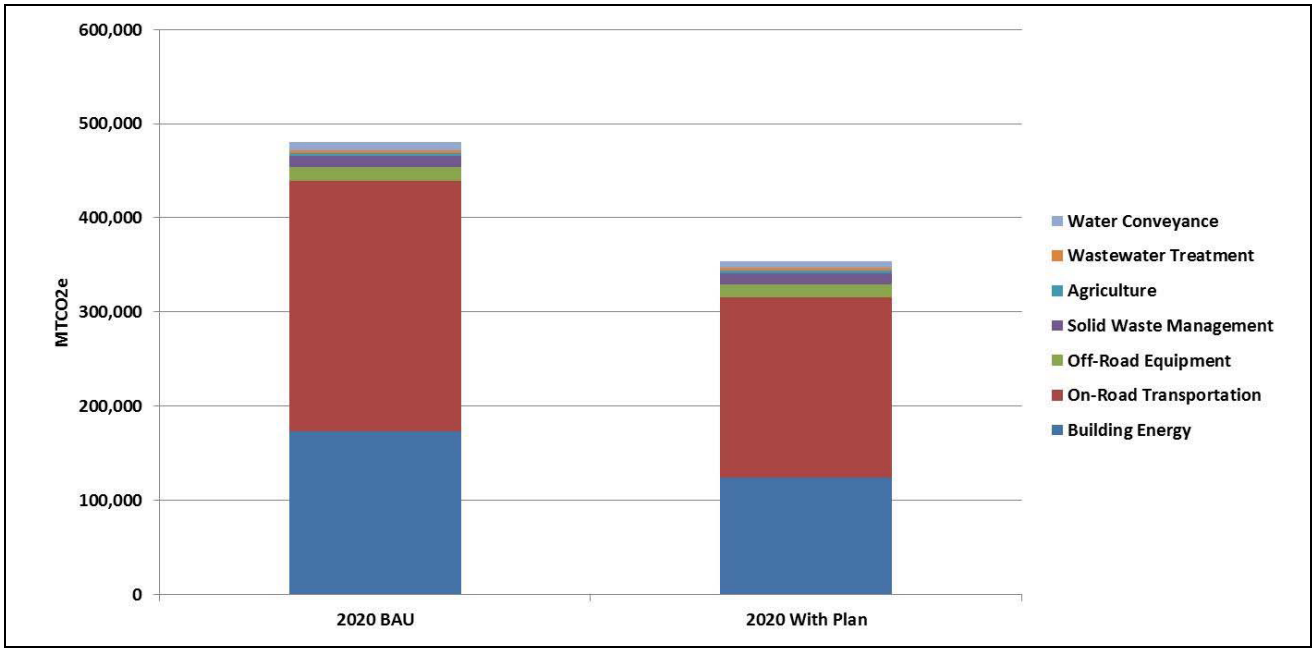

Figure 4.4-3 Emissions by Sector for Chino Hills

Table 4.4-3 Emission Reduction by Sector for Chino Hills

Sector	*2008*	*2020 BAU*	*Reductions*	*2020 Emissions with Plan*	*% Reduction*
Building Energy	162,380	173,369	49,040	124,328	28.3%
On-Road Transportation	265,707	265,709	74,014	191,696	27.9%
Off-Road Equipment	14,628	15,040	1,344	13,696	8.9%
Solid Waste Management	6,831	11,754	80	11,674	0.7%
Agriculture	5,691	2,900	0	2,900	0.0%
Wastewater Treatment	3,016	3,116	265	2,851	8.5%
Water Conveyance	5,909	8,790	1,906	6,883	21.7%
GHG Performance Standard*	—	—	2,710	—	—
Total Emissions	***464,162***	***480,677***	***126,649***	***354,028***	***26.3%***
Reduction Goal	—	—	**96,135**	**384,542**	**20.0%**
Met Goal?	—	—	Yes	Yes	Yes
Reductions Beyond Goal	—	—	***30,514***	—	—
Per-Capita Emissions	6.2	6.3	—	4.6	—
Per-Job Emissions	49.9	46.0	—	33.9	—
Excluded Stationary Source Emissions	25,417	33,375	—	—	—

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 4.4-4 (Emission Reductions by Control and by Sector for Chino Hills) 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 due to the implementation of SBX 7-7 (Water-4).

Table 4.4-4 (GHG Reduction Measures and Estimated 2020 Reductions for Chino Hills) presents the reduction measures selected by the City. 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. The physical impacts of implementing the Local Measures are reviewed in this chapter of the EIR to determine the significance of the Regional Reduction Plan as it relates to the City of Chino Hills.

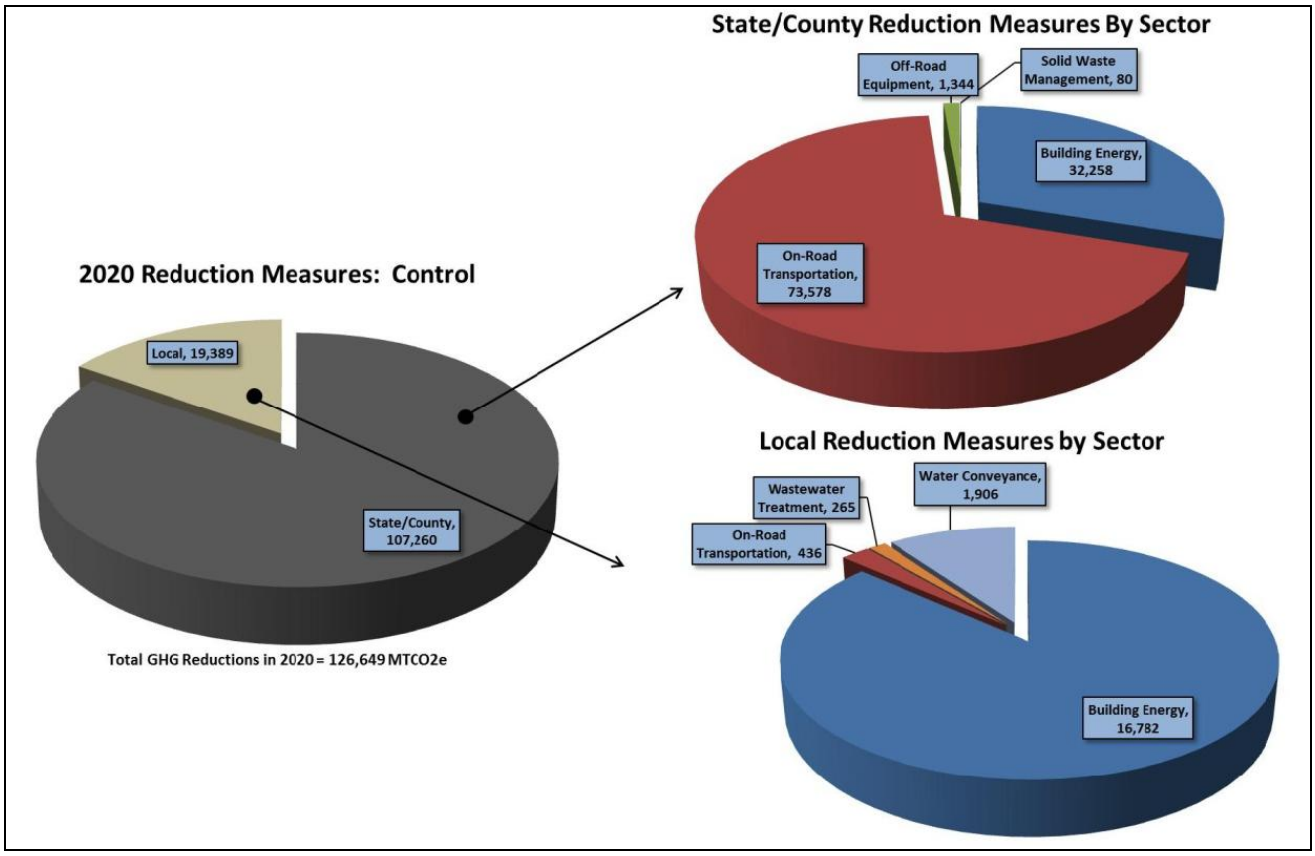

Figure 4.4-4 Emissions Reduction by Control and Sector for Chino Hills

Table 4.4-4 GHG Reduction Measures and Estimated 2020 Reduced Emissions for Chino Hills

Reduction Measure Number	*Description*	*Emissions Reductions*
	STATE AND COUNTY MEASURES	
State-1	Renewable Portfolio Standard	22,570
State-2	Title 24	2,566
State-3	AB 1190	6,657
State-4	Solar Water Heating	199
State-5	Industrial Boiler Efficiency	266
State-6	Pavley and Low Carbon Fuel Standard	67,686
State-7	AB 32 Transportation Reduction Strategies	5,892
State-8	Low Carbon Fuel Standard-Off-road	1,344
State-9	AB 32 Methane Capture	0
County-1	County GHG Reduction Plan Landfill Controls	80

Table 4.4-4 GHG Reduction Measures and Estimated 2020 Reduced Emissions for Chino Hills

Reduction Measure Number	*Description*	*Emissions Reductions*
	LOCAL MEASURES	
Building Energy		
Energy-7	Solar Installation for Existing Housing	1,654
Wastewater-2 (BE)	*Equipment Upgrades*	*632*
Water-4 (BE)	*Implement SBX 7-7*	*14,496*
On-Road Transportation		
Transportation-2	Smart Bus Technologies	436
Wastewater Treatment		
Water-4 (WT)	*Implement SBX 7-7*	*265*
Water Conveyance		
Water-4	Implement SBX 7-7	1,906
	Total Reductions	***126,649***

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).

Summary of Environmental Impacts and Mitigation Measures

The Regional Reduction Plan City of Chino Hills chapter describes the proposed project including the reduction measures and reduction targets chosen by the City of Chino Hills. 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 Hills. No comment letters specific to the City of Chino Hills were received in response to the notice of preparation (NOP) circulated for the proposed project.

Table 4.4-5 (Summary of Environmental Impacts of Implementing Local Reduction Measures in Chino Hills) summarizes the environmental impacts of implementing the Regional Reduction Plan local reduction measures by issue area. There are no significant impacts requiring mitigation measures.

Table 4.4-5 Summary of Environmental Impacts of Implementing Local Reduction Measures in Chino Hills

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

Environmental Impacts	*Regional Reduction Plan Local Reduction Measure*			
	Energy-7	*Wastewater-2*	*Transportation-2*	*Water-4*
Aesthetics				
Scenic vistas	LS/PR	NI	NI	NI
Scenic highways	LS/PR	NI	NI	NI
Visual character or quality	LS/PR	NI	NI	NI
Light and glare	LS/PR	NI	NI	NI
Cumulative impacts	LS/PR	NI	NI	NI
Agriculture/Forestry Resources				
Convert farmland to nonagricultural use	NI	NI	NI	NI
Conflict with existing agricultural zoning or Williamson Act	NI	NI	NI	NI
Conflict with existing forest land or timberland zoning	NI	NI	NI	NI
Loss or conversion of forest land to nonforest land	NI	NI	NI	NI
Other changes causing conversion of farmland to nonfarmland use or forest land to nonforest land use	NI	NI	NI	NI
Cumulative impacts	NI	NI	NI	NI
Air Quality				
Conflict or obstruct air quality management plan	LS	LS	LS	LS
Violation of air quality standard	LS	LS	NI	NI
Exposure of sensitive receptors	NI	NI	NI	NI
Creation of objectionable odors	NI	NI	NI	NI
Cumulatively considerable net increase of any nonattainment criteria pollutant	LS	NI	LS	NI
Biological Resources				
Special-status species	LS/PR	NI	NI	NI
Riparian habitat or other sensitive natural community	LS/PR	NI	NI	NI
Protected wetlands	LS/PR	NI	NI	NI
Wildlife movement	LS/PR	NI	NI	NI
Conflict with any local policies or ordinances protecting biological resources	LS/PR	NI	NI	NI
Conflict with habitat conservation plan	LS/PR	NI	NI	NI
Cumulative impacts	LS/PR	NI	NI	NI
Cultural Resources				
Substantial adverse change in significance of a historical resource	LS/PR	NI	NI	NI

Table 4.4-5 Summary of Environmental Impacts of Implementing Local Reduction Measures in Chino Hills

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

Environmental Impacts	*Regional Reduction Plan Local Reduction Measure*			
	Energy-7	*Wastewater-2*	*Transportation-2*	*Water-4*
Substantial adverse change in significance of a archaeological resource	LS/PR	NI	NI	NI
Destruction of a unique paleontological resource or site or unique geologic feature	LS/PR	NI	NI	NI
Disturb any human remains	LS/PR	NI	NI	NI
Cumulative impacts	LS/PR	NI	NI	NI
Geology/Soils				
Fault rupture, strong seismic groundshaking, seismic-related ground failure, including liquefaction, landslides	NI	LS	NI	NI
Substantial soil erosion or loss of topsoil	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	NI	NI
Located on expansive soil	NI	NI	NI	NI
Soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems	NI	NI	NI	NI
Cumulative impacts	NI	LS	NI	NI
Greenhouse Gas Emissions/Global Climate Change				
Generate greenhouse gas emissions	LS	LS	LS	LS
Conflict with an applicable plan, policy, or regulation to reduce greenhouse gas emissions	LS	LS	LS	LS
Hazards/Hazardous Materials				
Create significant hazard through the routine transport, use, or disposal of hazardous materials	LS/PR	NI	NI	NI
Create significant hazard through release of hazardous materials	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
Located on a site that is included on a list of hazardous materials sites, creating significant hazard	NI	NI	NI	NI
Located within 2 miles of a public airport or public use airport	NI	NI	NI	NI
Located within the vicinity of a private airstrip	NI	NI	NI	NI
Impair or interfere with an adopted emergency response plan or emergency evacuation plan	LS/PR	NI	NI	NI
Risk of loss, injury, or death involving wildland fires	NI	NI	NI	NI
Cumulative impacts	LS/PR	NI	NI	NI
Hydrology/Water Quality				
Violate any water quality standards or waste discharge requirements	LS/PR	NI	NI	NI
Deplete groundwater supplies or interfere with groundwater recharge	LS	NI	NI	NI

Table 4.4-5 Summary of Environmental Impacts of Implementing Local Reduction Measures in Chino Hills

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

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

Table 4.4-5 Summary of Environmental Impacts of Implementing Local Reduction Measures in Chino Hills

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

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

4.4.1 Aesthetics

This section of the EIR analyzes the potential environmental effects on aesthetics in the City of Chino Hills from implementation of the Regional Reduction Plan. Data for this section were taken from the Chino Hills General Plan (1994) and associated environmental documents. 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

Visual Character

The Chino Hills landscape is comprised of a system of canyons, streams, floodplains, ridges, and hillsides. The streams, watercourses, and pools which run through the hills usually lie at the bottom of canyons and drainage ravines, and carry intermittent water to the Prado Flood Control Basin of the Santa Ana River. The naturally connected open space network defines the rural and scenic character of Chino Hills. Open space and wildlife corridors provide access to passive and active open space, as well as scenic views that help define the rural character of Chino Hills. Near and distant views throughout the community reinforce the scenic quality of the city's natural setting. Chino Hills retains a sense of openness and natural beauty, a character becoming increasingly rare in Southern California. As the City plans for new growth, the long-range preservation and conservation of natural resources becomes vital.

Scenic Resources

In Chino Hills, "natural resources" include scenic vistas, trees, hillsides, biological resources, air quality, agricultural land, and mineral resources. The Chino Hills Municipal Code identifies exceptionally prominent ridgelines, prominent ridgelines, prominent knolls, and associated primary viewpoints within the City of Chino Hills. The City's Municipal Code identifies exceptionally prominent ridgelines that provide the City with its distinct image as the ridgelines viewed from the following transportation corridors: Chino Valley Freeway (State Route 71 [SR-71]), Carbon Canyon Road (SR-142), Butterfield Ranch Road, Soquel Canyon Parkway, Chino Hills Parkway, Peyton Drive, Woodview Road, Eucalyptus Avenue, Tonner Canyon Road, and Grand Avenue.

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. No highways located within the City are designated by Caltrans as scenic.

Outdoor Lighting Energy-Efficiency Standards

California Code of Regulations (CCR) Title 24, Parts 1 and 6, Building Energy Efficiency Standards establishes requirements for outdoor lighting for residential and nonresidential development. 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, which are designated as LZ1 (dark), LZ2 (rural), or LZ3 (urban).

Solar Energy Systems

Government Code Section 65850.5 provides statewide standards to promote development of solar energy by providing timely and cost-effective administrative review of these systems for installation within residential, agricultural, and business areas. The law prohibits local jurisdictions from adopting ordinances that create unreasonable barriers to development of solar energy systems and specifically identifies design review for aesthetic purposes as an unreasonable barrier.

Regional

San Bernardino 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

City of Chino Hills Municipal Code

The Development Code (Municipal Code Title 16) contains regulations governing permitted land uses in the City and defines applicable use regulations, site development criteria, performance standards, and general design regulations. The City has also adopted regulations for solar energy installations, incorporating the Uniform Code for Solar Energy Installations (2009 edition). Section 16.06.140 exempts the installation of solar photovoltaic systems on rooftops from requirements for the shielding of roof appurtenances. Chapter 16.08.030 (Scenic Resources Overlay District) provides development standards intended to protect, preserve, and enhance the aesthetic resources of the City. Specifically, it identifies exceptionally prominent ridgelines, prominent ridgelines, prominent knolls, and associated primary viewpoints within the City of Chino Hills. This chapter also includes Ridgelines and Knolls Map, ridgeline protection requirements, and development standards for hillside adaptive development standards.

Chino Hills General Plan

The Chino Hills General Plan policies that are applicable to aesthetics[1] are as follows:

Conservation Element, Natural Setting

Policy 1-4 In canyon areas committed to development, emphasize the retention of natural topographic features, and require low visual profiles and dense vegetation for buildings.

Parks, Recreation, and Open Space Element, Open Space

Policy 1-3 Protect prominent ridgelines and knolls in their natural condition.

Policy 1-4 Protect native trees and cliffsides because they provide habitat for wildlife such as birds that keep the rodent population in check and add to the aesthetic value of the open space.

Policy 1-13 When it is consistent with good management practice, plant new vegetation that is compatible with native plant communities of the specific area.

Parks, Recreation, and Open Space Element, Facilities

Policy 2-11 Preserve the historical, scenic and cultural heritage sites of the community and its environs.

Policy 2-13 Locate the community centers where they are accessible to public transportation systems.

Park, Recreation, and Open Space Element, Trails

Policy 3-1 Provide a multi-use trail system that safely accommodates bicycles, hikers, and equestrians.

Policy 3-2 Integrate the planning for the trail network with the planning for streetscapes, parks, and open space.

Policy 3-9 Whenever possible, provide trail connections to regional trails, local trails, and recreation facilities in adjacent communities.

Parks, Recreation, and Open Space Element, Aesthetic Environment

Policy 6-3 Promote use of drought tolerant and native plant material where appropriate in parks.

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

[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.

- 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

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). Regional Reduction Plan reduction measures were reviewed to determine if they would include elements that, if implemented, would result changes in the viewshed that could be subjectively perceived as adverse or negative, or if implementation of the measures would be inconsistent with applicable General Plan goals or City standards pertaining to community design and visual quality.

Effects Not Found to Be Significant

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

The City of Chino Hills has designated prominent ridgelines, prominent ridgelines, prominent knolls, and associated primary viewpoints within the City of Chino Hills.

Implementation of the Regional Reduction Plan could result in the installation of photovoltaic arrays on existing buildings. Implementation of the Regional Reduction Plan would be subject to requirements included in the Scenic Resources Overlay District. The City would require project design to be consistent with General Plan policies, which require the provision of architectural controls, additional setbacks and height limitations to assure views are not adversely affected. Further, the City requires that all projects be reviewed for consistency with the General Plan policies and Development Code prior to approval. Therefore, any projects constructed under the Regional Reduction Plan would be evaluated for conformance to these policies to ensure that scenic vistas are not adversely affected. The impact would be ***less than significant***. No mitigation is required.

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 State scenic highways in Chino Hills; however, the City has identified several roadways, which Municipal Code Chapter 16.08.030 identifies as providing important views of exceptionally prominent ridgelines, prominent ridgelines, prominent knolls, and associated primary viewpoints within the City of Chino Hills.

Proposed measures that could be implemented in Chino Hills include solar installations on homes, upgrades to wastewater treatment plant equipment, and measures related to smart bus technologies. Upgrades to treatment plant equipment and smart bus technologies would not result in the development of features that would be readily visible. Further, the City requires that all projects be reviewed for

consistency with the General Plan policies and Development Code Scenic Resources Overlay District standards (Municipal Code Section 16.30) prior to approval. With implementation of adopted policies and regulations, this would ensure that scenic resources that are visible from local roadway view corridors are not adversely affected. The impact would be ***less than significant***. No mitigation is required.

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

The Regional Reduction Plan does not propose specific development. Rather, it encourages increased sustainability in existing and future development, furthering the goals of the General Plan. The Regional Reduction Plan establishes policies that encourage installation of energy-saving solar systems on existing residential, buildings. These features would likely be visible to visitors, employees, and residents, and screening would inhibit energy production.

Future development that would incorporate photovoltaic panels on existing residential structures would be required to comply with General Plan policies that regulate the design of new buildings as well as protect the existing visual quality of the City. For example, the Scenic Resources Overlay District protects and enhances designated ridgelines. Future energy-efficiency projects would need to comply with the City's existing design provisions that relate to aesthetics and visual quality. Regional Reduction Plan reduction measures implemented by Chino Hills 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. This impact would be ***less than significant***. No mitigation is required.

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

Ambient light and glare from urban uses is present in the urbanized portions of the City Implementation of Regional Reduction Plan measures include measures associated with smart bus technologies, installation of photovoltaic arrays on existing residential structures, and upgrades to wastewater treatment plants. These would not be expected to be a substantial source of light that would adversely affect nighttime views. The City would require project design to be consistent with applicable General Plan policies and design standards to minimize lighting impacts.

Implementation of the Regional Reduction Plan could result in the installation of photovoltaic arrays on existing housing buildings. Rooftop solar panels, to be effective, must be oriented to maximize solar radiation absorption. 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. While solar photovoltaic installations do have the potential to generate some glare, the orientation of these panels, particularly for rooftop installations, will serve t limit any potential glare impacts to motorists and sensitive receptors. Additionally, these types of installations only have the potential to generate glare during the times that sunlight strikes the panels; there will not be any glare or lighting impacts to the night sky. City Municipal Code Section 16.06.130 identifies specific design requirements for the installation or construction of site improvements, which would include alternative energy systems, which would reduce potential glare impacts.

Therefore, light and glare impacts would be ***less than significant***. No mitigation is required.

Cumulative Impacts

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.

The Regional Reduction Plan does not propose specific development. The proposed smart bus technology measures, solar installation on existing residential structures, and proposed upgrades to wastewater treatment plants associated with the proposed project would not result in a cumulatively considerable contribution to aesthetics effects. ***Cumulative aesthetics impacts would be less than significant***.

References

Chino Hills, City of. 1994, as amended through 2008. *City of Chino Hills General Plan*, September 13.

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

San Bernardino, County of. 2007. *County of San Bernardino 2007 General Plan*, March 13.

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

4.4.2 Agriculture/Forestry Resources

This section of the EIR analyzes the potential environmental effects on agriculture/forestry resources in the City of Chino Hills from implementation of the Regional Reduction Plan. Data for this section were taken from Chino Hills General Plan (1994) and associated environmental documents. 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

In the past, agriculture was located within portions of the flatter areas of Chino Hills. Today, agriculture use is limited primarily to the Boys Republic property, which consists of approximately 196 acres, most of which is used for grazing and alfalfa or hay production to feed cattle. Cattle grazing has historically occurred in the hillside areas of Chino Hills. Today, grazing activity remains within the hillside areas on city owned Open Space properties and on limited undeveloped properties.

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. Contracts last ten years and are automatically renewed unless a notice of nonrenewal is issued. The preservation of agricultural land through Williamson Act contracts 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.

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

County of San Bernardino Development Code

The County of San Bernardino Development Code includes Agricultural Land Use Zoning Districts that provide sites for commercial agricultural operations, agricultural support services, rural residential uses and similar and compatible uses. Open space and recreation uses may occur on nonfarmed lands within these AG (Agriculture) land use zoning district. In addition, the Development Code also includes Additional Agriculture (AA) Overlays, which are intended to create, preserve, and improve areas for small-scale and medium-scale agricultural uses utilizing productive agricultural lands for raising, some processing, and the sale of plant crops, animals, or their primary products. It is an overlay where agricultural uses exist compatibly with a variety of rural residential lifestyles. Agricultural Preserve (AP) Overlays were also established for properties that may be subject to a Land Conservation Contract executed between the landowner and the Board.

Local

There are no local regulations pertaining to agricultural/forestry resources that would be most applicable to the Regional Reduction Plan.

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/forestry resources within the City of Chino Hills.

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 solar installation for existing housing and smart bus technologies, but these areas do not include changing any existing agricultural lands. 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 agricultural use to nonagricultural use, and does not include designated Prime Farmland, Unique Farmland, and Farmland of Statewide Importance. There would be ***no impact***.

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

Implementation of the Regional Reduction Plan is within urbanized portions of Chino Hills and does not include conversion of agricultural land. There are no current Williamson Act contracts within the City. Therefore, there would be ***no impact***.

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 Hills is urbanized and does not contain forest land/timberland. There would be ***no impact***.

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

The City of Chino Hills is urbanized and does not contain forest land. There would be ***no impact***.

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?

For the reasons described above, no other changes are anticipated that would result in conversion of Farmland to nonagricultural use or conversion of forest land to nonforest use. There would be ***no impact***.

Cumulative Impacts

Implementation of the Regional Reduction Plan in Chino Hills would not result in any impacts on agricultural or forest lands at the project level. Therefore, impacts would not be cumulatively considerable, and there would be ***no cumulative impact***.

References

Chino Hills, City of. 1994, as amended through 2008. *City of Chino Hills General Plan*, September 13.

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

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

4.4.3 Air Quality

This section of the EIR analyzes the potential environmental effects on air quality in the City of Chino Hills from implementation of the Regional Reduction Plan. Data for this section were taken from the Chino Hills General Plan (1994), associated environmental documents, and the San Bernardino County Regional Greenhouse Gas Reduction Plan (2012). 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 Hills 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 weather station nearest the site is in Pomona (ID No. 041779). The average low is reported at 38.6°F in January and the average high is 90.4°F in July. 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 December through March. Summer rainfall is normally restricted to widely scattered thundershowers near the coast with slightly heavier shower activity in the east and over the mountains.

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 4.4.7 [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 States Code Section 7412(b)) is a TAC. Under state law, the California Environmental Protection Agency (Cal/EPA), 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 eleven 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 Hills 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 Fontana-Arrow Highway Monitoring Station for SO_2, NO_2, and O_3 and the Upland Monitoring Station for CO. Data from these two stations are summarized in Table 4.4.3-1 (Ambient Air Quality Monitoring in the City of Chino Hills). 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. However, the area regularly exceeds the state PM_{10} and federal $PM_{2.5}$ standards.

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 4.4.3-1 Ambient Air Quality Monitoring in the City of Chino Hills

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	40	55	45	28	39
State 8-Hour ≥ 0.07 ppm	60	82	65	55	53
Federal 8-Hour ≥ 0.075 ppm[b]	43	58	48	33	39
Maximum 1-Hour Average Concentration (ppm)	0.144	0.162	0.142	0.143	0.144
Maximum 8-Hour Average Concentration (ppm)	0.122	0.124	0.128	0.100	0.124
Carbon Monoxide (CO)[c]					
State/Federal 8-Hour > 9.0 ppm	0	0	0	0	0
Maximum 8-Hour Average Concentration (ppm)	1.7	1.6	1.5	1.8	1.3
Nitrogen Dioxide (NO_2)[a]					
State 1-Hour ≥ 0.18 ppm[d]	0	0	0	0	0
Maximum 1-Hour Average Concentration (ppm)	0.09	0.10	0.11	0.072	0.076
Sulfur Dioxide					
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)		0.003	0.010	0.0066	0.012
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 January 2012).
ppm = parts per million; µg/m^3 = micrograms per meter cubed
a. Data obtained from the Fontana-Arrow Highway Monitoring Station.
b. USEPA recently updated the 8-hour ozone standard from 0.8 ppm to 0.075 ppm.
c. Data obtained from the Upland 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 Cal/EPA, 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 4.4.3-2 (State and Federal Ambient Air Quality Standards) shows the California Ambient Air Quality Standards and NAAQS for each of the criteria pollutants.

Table 4.4.3-2 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 4.4.3-3 (Attainment Status of Basin) shows the attainment status for criteria air pollutants in the Basin.

Table 4.4.3-3 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

Chino Hills General Plan

General Plan policies that are applicable to air quality and air pollutant emissions[2] are as follows:

Conservation Element, Air Quality

Policy 4-1 Reduce air pollution through coordinated land use, transportation, and energy use planning.

Policy 4-2 Endorse regional and local air quality and transportation management plans in order to reduce air pollution emissions and vehicle trips.

Policy 4-3 Locate multi-family development close to commercial areas to encourage pedestrian rather than vehicle traffic.

Policy 4-4 Develop a balance of land uses within the city to promote a reduction of distance between residence and workplace.

Policy 4-5 Develop neighborhood parks close to concentrations of homes to encourage residents to walk to public recreation.

Policy 4-6 Provide commercial areas that are conducive to pedestrian and bicycle circulation.

Policy 4-7 Develop a coordinated system of pedestrian pathways.

[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.

Policy 4-8 Encourage bike paths and lanes to reduce vehicle travel and ·air pollution. Coordinate these efforts with property owners and responsible jurisdictions. Design bike paths and lanes according to national standards and uniform practices.

Policy 4-9 Encourage the use of energy conservation devices in project design and construction to increase energy efficiency and decrease pollution from distant electrical power plants and on-site natural gas use.

Policy 4-10 Reduce vehicle trips through incentives, regulations, and/or transportation demand management (TDM) programs (see Circulation Element of [the General Plan]).

Policy 4-11 Reduce total vehicle miles traveled (VMT) through incentives, regulations, and or transportation demand management (TDM) programs (see Circulation Element of [the General Plan]).

Policy 4-12 Promote modified work schedules which reduce peak-period auto travel.

Policy 4-13 Participate in efforts to achieve increased designation, construction, and operation of high-occupancy vehicle (HOV) lanes on local freeways.

Policy 4-14 Promote all forms of transit serving the city and the urbanized portions of San Bernardino, Riverside, Los Angeles and Orange counties, including light rail and commuter rail service.

Policy 4-15 As required by the South Coast Air Quality Management District, encourage employer rideshare and transit incentive programs by local businesses.

Policy 4-16 Encourage businesses to alter truck delivery routes and local delivery schedules to off-peak hours.

Policy 4-17 Implement citywide traffic flow improvements outlined in the Circulation Element.

Policy 4-18 Support to the extent possible State and federal legislation which would improve vehicle/transportation technology and cleaner fuels.

Policy 4-19 Implement land use policy contained in the Land Use Element toward achieving jobs/housing balance goals.

Policy 4-20 Integrate air quality planning with the land use and transportation process by encouraging the use of alternative transportation modes and by promoting jobs/housing balance, both of which will reduce vehicle trips.

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 4.4.3-4 (SCAQMD Thresholds of Significance).

Table 4.4.3-4 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 NO_X 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 proposed project (Regional Reduction Plan) would implement measures within Chino Hills designed to increase renewable energy generation. The Regional Reduction Plan also implements reduction strategies applicable to potable water, which in turn result in reduction of energy that is used to treat and distribute water in the City. 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 measure On-Road-2 ("Smart Bus" Technologies) and is expected to increase ridership and reduce VMT, and as a result, improve 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. Renewable energy generation at existing residences will reduce the need for electricity generation in power plants from natural gas combustion. The implementation of the Regional Reduction Plan will further the goals of the Air Quality Management Plan for the Basin. Therefore, this impact is ***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, if required, for installation of energy-generating structures such as solar arrays, 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 proposed project (Regional Reduction Plan) would implement measures within Chino Hills designed to increase renewable energy generation by installing solar photovoltaic on existing residential units. Additionally, the Regional Reduction Plan implements water conservation strategies in the City. However, these reduction measures are not expected to involve major construction activities or equipment. Solar arrays would be installed on rooftops of existing homes and would not require grading or soil disturbance. Because information

regarding 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, temporary and short-term emissions that would be mostly from operation of construction equipment, would not be substantial and would be offset by the renewable energy production (i.e. from solar energy) and water conservation measures that are part of the reduction measures in the Regional Reduction Plan. Implementation of the Reduction Measures would result in an overall reduction in both GHG and criteria air pollutant emissions in the City.

While we may not be able to quantify short-term construction emissions, long-term emissions of criteria pollutants from renewable energy generation, water conservation measures, and the Smart Bus Technologies are better understood at a regional level. This is because of the level of commitment that the City of Chino Hills has chosen in implementing the reduction measures in the Regional Reduction Plan.

The emissions of criteria pollutants anticipated for the City of Chino Hills at buildout of the existing general plan were not available at the time this EIR was prepared. Regardless, the implementation of the Regional Reduction Plan will reduce the emission of criteria pollutants. For all criteria pollutants, emissions from on-road transportation will be reduced by 27.9 percent and emissions from natural gas combustion by 2.82 percent.

While the Regional Reduction Plan will reduce anticipated criteria air pollutant emissions resulting from buildout of the Chino Hills General Plan, but the net emissions from buildout of the General Plan are anticipated to remain over the SCAQMD Thresholds. This significant impact would have been addressed in the Chino Hills General Plan EIR. Implementation of the Regional Reduction Plan will reduce criteria pollutants thus benefitting air quality in the City. Therefore, the impact for the Regional Reduction Plan is ***less than significant***. No mitigation is required.

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

Implementation of the Regional Reduction Plan will not expose sensitive receptors to substantial pollutant concentrations. Substantial pollutant concentrations are typically associated with expansion of transit infrastructure and facilities near sensitive receptors. However, reduction measures in the Regional Reduction Plan selected by the City of Chino Hills do not include new transit facilities. Therefore, there would be ***no impact***.

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

Implementation of the Regional Reduction Plan will not create objectionable odors. Reduction measures in the Regional Reduction Plan selected by the City of Chino Hills would not involve any activities that would generate odors. Therefore, there would be ***no impact***.

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)?

As discussed previously, the Regional Reduction Plan will reduce criteria pollutant emissions within the City of Chino Hills. Regionally, additional air pollutant reductions will take place at power plants due to reductions in electrical demand and increases in renewable energy generation. Therefore, the Regional Reduction Plan will have a cumulatively net reduction in criteria air pollutants. 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 nonattainment (ozone, suspended particulates, and fine particulates). This significant impact of the General Plan was identified in the General Plan EIR.

However, because implementation of the Regional Reduction Plan has a net reduction in air pollution, the ***cumulative impact would be less than significant***.

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4.4.4 Biological Resources

This section of the EIR analyzes the potential environmental effects on biological resources in the City of Chino Hills from implementation of the Regional Reduction Plan. Data for this section were taken from Chino Hills General Plan (1994) and associated environmental documents. 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

Chino Hills is home to a wide diversity of plant and animal species, often located in the canyons. Plant communities include riparian woodlands and thickets, freshwater marshes, oak woodland, walnut woodland, chaparral, and coastal sage scrub. The city provides habitat for several endangered, threatened, or candidate animal species, including birds and wildlife. Chino Hills also includes valuable ecotones, which are areas of overlapping plant communities providing diverse habitat.

Open space and wildlife corridors provide access to passive and active open space. Both animals and people use these corridors (through the city's canyons, watercourses, and valleys). The Chino Hills landscape is comprised of a system of canyons, streams, floodplains, ridges, and hillsides. The streams, watercourses, and pools which run through the hills usually lie at the bottom of canyons and drainage ravines, and carry intermittent water to the Prado Flood Control Basin of the Santa Ana River.

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 U.S. 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 FESA Section 7 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 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 Regional Water Quality Control Board (RWQCB). The City of Chino Hills is within the jurisdiction of the Lahontan RWQCB (Region 6).

Clean Water Act, Section 404

USACE regulates discharges of dredged or fill material into waters of the United States including wetlands and nonwetland 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. 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 Game 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 Game Code, Section 1600

California Fish and Game 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.

Local

Chino Hills General Plan

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

Conservation Element, Biological Resources

Policy 2-2 Preserve eucalyptus windrows, oak woodlands, riparian areas, freshwater marshes, and open water bodies as identified on the Biotic Communities Map in the Chino Hills Specific Plan Environmental Impact Report or as may be modified by future site-specific environmental studies.

Policy 2-4 Trees which in the opinion of the City function as an important part of the City's or a neighborhood's aesthetic character may not be removed without specific permission from the City, regardless of their location.

[3] 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 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 Hills.

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. Should renewable energy generation facilities be proposed in the City, potential impacts on habitat, and other environmental concerns would be reviewed as part of the City's review and approval procedures. Sensitive plant and animal species that may occur within the City are discussed above under Environmental Setting. As discussed in this section, a large portion of the City is developed; however, the undeveloped areas of the City contain a variety of habitats with the potential to support sensitive species.

Renewable energy projects considered for approval on vacant land under the Regional Reduction Plan would be required to provide independent CEQA review and would be required to comply with the City's project approval process. 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.

After compliance with the requirements of the City's development process, and the California and federal endangered species acts, including requirements of the USFWS regarding critical habitat, 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 are limited to existing land uses and new development within the City. As an example, a portion of the single family residential units are anticipated to include rooftop photovoltaic (PV) solar panels. Other land uses such as multi-family residential, office buildings, schools, churches and municipal facilities could have PV solar panels mounted on racks above parking lots or potentially be built on landscaped areas within the property. However, these installations of PV solar are limited to the developed land use and would not be within riparian habitat.

In addition, as stated previously, individual projects undergoing the City's development approval process would be required to survey for sensitive biological resources. The City requires compliance with all applicable regulations pertaining to riparian habitat. Prior to the issuance of grading permits for any project potentially affecting riparian habitat, the applicant is required to provide evidence that all necessary permits have been obtained from the CDFW (California Fish and Game Code Sections 1601–1603). If there are any impacts to riparian areas, the impacts would be required to be mitigated by the California Fish and Game Code Sections 1601–1603. 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***. Mitigation is not 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?

There are several drainages that that traverse the planning area that could contain federally protected wetlands. Implementation of the Regional Reduction Plan includes energy efficiency standards for existing development and would not affect bodies of water or wetlands.

In the unlikely event that a renewable energy project results in impacts to federally protected wetlands or waters of the state, that project would be subject to approval by the USACE through a Section 404 Permit and/or approval by the CDFW through Streambed Alteration Agreements. If a Section 404 Permit from the USACE is required, a Section 401 Water Quality Certification will also be required from the RWQCB. The applicable permits would require mitigation as determined by the USACE, RWQCB, and/or 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?

Open space and wildlife corridors provide access to passive and active open space, as well as scenic views that help define the rural character of Chino Hills. Both animals and people use these corridors (through the City's canyons, watercourses, and valleys).

The Regional Reduction Plan does include an increase in renewable energy sources within the City. Renewable energy generation facilities are limited to existing land uses and new development within the City. These installations of renewable energy are limited to the developed land use and would not contain a wildlife corridor. Therefore, implementation of the Regional Reduction Plan is not anticipated to impair the use of wildlife corridors.

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 General Plan and Municipal Code, which require proper assessment of biological resources before authorizing development, incorporation of mitigations for any identified sensitive biological resources, and protected trees. Projects that implement the Regional Reduction Plan would be required to demonstrate

compliance with the General Plan policies and the City's Municipal Code during the City's development review process. 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. This ordinance prohibits the removal of any vegetation within two hundred feet of the bank of a stream or in an area indicated as a protected riparian area. Future development in Chino Hills must comply with these regulations.

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 CDFG regarding impacts to sensitive species and ensuing mitigation. 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 are limited to existing land uses and new development within the City. These installations of renewable energy would be limited to the developed land use and would not contain habitat. After compliance with the City's survey requirements and applicable 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 City, state, and federal biological resources requirements are intended to protect biological resources at a regional level, and individual projects implementing the Regional Reduction Plan would be in compliance with these regional protections, 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 could be proposed during implementation of the proposed Regional Reduction Plan. As stated previously, individual projects undergoing development review in the City would be required to determine whether there is potential habitat on site for sensitive species. If sensitive species were found on site, the project proponent would be required to consult with the CDFW and other agencies as applicable regarding impacts to sensitive species and ensuing mitigation. 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 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 renewable energy project results in impacts to waters of the state, that project would be subject to approval by the USACE through a Section 404 permit and/or the CDFW through Streambed Alteration Agreements and would require mitigation as determined by the USACE and/or CDFW for any consequent impacts. With Section 404 permits and 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?

Canyons, watercourses, and valleys within the City could serve as corridors for movement. However, implementation of the Regional Reduction Plan will not impair the use of 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 MBTA. Therefore, the Regional Reduction Plan is not anticipated to have substantial adverse impacts to migratory birds. Because the Regional Reduction Plan would have 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 any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

Projects proposed under the Regional Reduction Plan and cumulative projects in the City would be required to demonstrate compliance with City requirements related to biological resources during the project's development review process. Therefore, there would be ***no cumulative impact***.

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 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 adjacent to the City: The County of San Bernardino Riparian Plant Conservation Ordinance and The Western Riverside Multiple Species Habitat Conservation Plan. The Regional Reduction Plan does not propose activities within these planning areas. Therefore, the Regional Reduction Plan does not conflict with or obstruct these habitat conservation plans. 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 Hills, City of. 1994, as amended through 2008. *City of Chino Hills General Plan*, September 13.

———. n.d. *City of Chino Hills 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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4.4.5 Cultural Resources

This section of the EIR analyzes the potential environmental effects on cultural resources in the City of Chino Hills from implementation of the Regional Reduction Plan. Data for this section were taken from the Chino Hills General Plan (1994) and associated environmental documents. 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.

The City contains numerous recorded paleontological (fossil) and archaeological sites, and several historic structures. However, a citywide survey of prehistoric and historic resources has not been undertaken (Chino Hills 1994). As of June 1993, significant paleontological resources, including fossilized remains of a Mammoth or giant ground sloth, were discovered during grading of a construction site. Many of the City's archaeological sites are associated with the area's rich Native American history.

Historical Resources in Chino Hills

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. Resources in the City of Chino Hills are listed on the NRHP are as follows (Chino Hills 1994):

- Yorba-Slaughter Adobe

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 the City of Chino Hills are (Chino Hills 1994):

- Isaac Williams Adobe
- Yorba-Slaughter Adobe

The California PHIs in the City of Chino Hills are (Chino Hills 1994):

- The Homestead

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 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

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 CHLs and 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 California Code of Regulations, 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

County of San Bernardino Development Code

The County of San Bernardino 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 San Bernardino County Development Code Sections 82.01.020 (Land Use Plan and Land Use Zoning Districts) and 82.01.030 (Overlays). 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; however, each local municipality has its own criteria for the preservation of local historic and prehistoric resources within their jurisdiction, as outlined below.

Local

City of Chino Hills Municipal Code

Municipal Code Chapter 16.52 (Conditional Grading Compliance), Section 16.52.030 (Quality Control Engineer's Responsibilities), holds the Quality Control Engineer responsible for inspection of the [earth disturbing] work in progress to assure compliance with the conditions of approval which set provisions regarding archeology, paleontology or any other conditions of approval which will control or impact grading. The quality control engineer shall report to and file reports after each inspection or (if continuous inspections are necessary) weekly with the Building Official as required by the Building Official.

Chino Hills General Plan

The General Plan policies that are applicable to cultural resources[4] are as follows:

Conservation Element, Cultural Resources

Policy 9-1	Preserve existing, and continue to research potential, cultural resources in the city.
Policy 9-1	For development proposed in areas identified in the records search and field survey, require a cultural resource investigation (including mitigation) by a qualified professional.
Policy 9-3	Require implementation of CEQA Guidelines Supplementary Document J (Archaeological Impacts) in the event that cultural resources are discovered during excavation for a project.

[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.

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 the General Plan (1994). 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.

Effects Not Found to Be Significant

Threshold	Would the project cause a substantial adverse change in the significance of a historical resource as defined in CEQA Guidelines Section 15064.5? Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines Section 15064.5? Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

Historic buildings in the city include the Isaac Williams Adobe (California Historical landmark), the Homestead (California Point of Historical Interest), and the Yorba-Slaughter Adobe (National Register and California Historical landmark). The high potential for finding fossils and archaeological remains demands continual monitoring of new development sites. 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"). Implementation of the Regional Reduction Plan will include solar array installation for existing homes, implementation of smart bus technologies, and promoting water

saving strategies. These measures will not include activities that will result in impacts to existing historic structures, and does not include activities that would directly result in extensive ground disturbing activities within previously undisturbed soils. Therefore, the potential for impacts to historical, archaeological, and paleontological resources as a result of implementation of the Regional Reduction Plan 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 extensive ground disturbing activities within previously undisturbed soils, 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***.

Cumulative Impacts

The cumulative analysis for impacts on cultural resources considers a broad regional system of which the resources are a part. In the region, 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; the ***cumulative impact would be less than significant***.

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 Ordinances, and the General Plan Policies 9-1 through 9-3. For future discretionary projects occurring under the Regional Reduction Plan, environmental review would occur at project-level. This would include studies to determine the presence or absence of resources in areas with a documented or

inferred archaeological resource presence. Thereafter, properties with resources would be addressed through mitigation, as appropriate, and based on the recommendations of a qualified consulting archaeologist. Therefore, the ***cumulative impact would be less than significant***.

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 and the General Plan Policies 9-1 through 9-3. For future discretionary projects occurring under the Regional Reduction Plan, environmental review would occur at project-level. This would include coordination with the San Bernardino County Museum to determine if the project was occurring within an area of documented or inferred paleontological resource presence. Thereafter, significant resources would be protected. Therefore, the ***cumulative impact would be less than significant***.

Cumulative development, including the Regional Reduction Plan, could disturb 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, the ***cumulative impact would be less than significant***.

References

Chino Hills, City of. 1994, as amended through 2008. *City of Chino Hills General Plan*, September 13.

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

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

4.4.6 Geology/Soils

This section of the EIR analyzes the potential environmental effects on geology/soils in the City of Chino Hills from implementation of the Regional Reduction Plan. Data for this section were taken from the Chino Hills General Plan (1994), associated environmental documents, and information published by the California Geological Survey. 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

Geology and Physiography

The City of Chino Hills is located in the eastern Puente Hills, in the northern portion of the Peninsular Ranges geomorphic province. The Peninsular Ranges province is characterized by a series of northwest to southeast-oriented valleys, hills, and mountains separated by faults associated with, and parallel to the San Andreas fault system.

The hilly portions of Chino Hills are underlain by bedrock of the Puente Formation, which was deposited approximately several million years ago when this area of Southern California was under water. In the last two to three million years, the sea that covered the area receded westward as the land rose, and a complex process of faulting and folding formed the Puente (Chino) Hills. The folded nature of these rocks, especially where the individual layers comprising this siltstone and sandstone formation are thin, combined with the steepness of the terrain in the central and western portions of the city, makes this area one of most landslide-prone areas in Southern California. Bedrock of the Topanga Formation is exposed in the southeastern corner of the city, adjacent to the Horseshoe Bend area of the Santa Ana River. This sandstone rock formation was deposited about 15 million years ago.

Faults and Seismic Hazards

Many of the active faults in Southern California have the potential of generating strong ground motions in Chino Hills. Of the numerous faults that have been mapped in the Southern California region, those that could cause significant groundshaking in the City of Chino Hills include the Chino, Whittier, Elsinore, Sierra Madre-Cucamonga, San Jose, San Andreas, Newport-Inglewood, and Norwalk faults. The San Andreas and San Jacinto faults are thought to have the highest probabilities of generating a moderate to large earthquake in the near future. The State has delineated an Alquist-Priolo Earthquake Fault Zone for the Chino fault where it passes through Chino Hills. The Chino fault Earthquake Fault Zone is oriented northwest-southeast and is west of and generally parallel to Highway 71. The northern end of the fault zone terminates in the Los Serranos area. The southern segment passes through the Butterfield Ranch area before continuing southeast to south of Prado Dam in the vicinity of the City of Corona (CGS 2003). The maximum credible earthquake (MCE) for the Chino fault is magnitude 6.8.

Areas adjacent to Chino Creek along the northeastern portions of Chino Hills and in the eastern portion of the City underlain by stream deposits and shallow groundwater, and canyons filled with unconsolidated deposits along drainages have a high potential for liquefaction.

Other Geologic Hazards

Geologic hazards of greatest concern in the City of Chino Hills include slope instability, expansive and compressible soils, and erosion. A large portion of the city has been mapped as susceptible to landsliding. Recently deposited stream sediments in canyon bottoms are susceptible to settling if subject to heavy loads, such as from building foundations. Some of the soils and bedrock units that underlie Chino Hills have a moderate to high expansion potential. Structures sited on untreated, highly expansive materials can experience substantial structural damage as a result of shrinking and swelling of these soils. Subsidence due to groundwater withdrawal has not been identified as a hazard in Chino Hills.

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. As noted above, the State has delineated an Earthquake Fault Zone in Chino Hills.

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. The State has not published maps that cover the portion of San Bernardino County where Chino Hills is located.

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 Building Code (2010)

California Code of Regulations (CCR), Title 24, Part 2, the California Building Code (CBC), provides minimum standards for building design in the state. The 2010 CBC, effective January 1, 2011, is the current code and is based on the current (2009) International Building Code (IBC).

Each jurisdiction in California may adopt its own building code based on the 2010 CBC. Local codes are permitted to be more stringent than the 2010 CBC, but, at a minimum, are required to meet all state standards and enforce the regulations of the 2010 CBC beginning January 1, 2011. The City of Chino Hills has adopted the 2010 CBC (Municipal Code Section 15.04.010, Ordinance 239, 2010).

CBC Chapter 16 addresses structural design requirements governing seismically resistant construction (Section 1604), including, but not limited to, factors and coefficients used to establish seismic site class and seismic occupancy category for the soil/rock at the building location and the proposed building design (Sections 1613.5 through 1613.7). Chapter 18 includes, but is not limited to, the requirements for foundation and soil investigations (Section 1803); excavation, grading, and fill (Section 1804); allowable load-bearing values of soils (Section 1806); and the design of footings, foundations, and slope clearances (Sections 1808 and 1809), retaining walls (Section 1807), and pier, pile, driven, and cast-in-place foundation support systems (Section 1810). Chapter 33 includes, but is not limited to, requirements for safeguards at work sites to ensure stable excavations and cut or fill slopes (Section 3304). CBC Appendix J includes, but is not limited to, grading requirements for the design of excavations and fills (Sections J106 and J107) and for erosion control (Sections J109 and J110). Construction activities are subject to occupational safety standards for excavation, shoring, and trenching as specified in Cal-OSHA regulations (CCR, Title 8).

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 Hills Municipal Code

Chino Hills Municipal Code Section 15.04.010 implements the provisions of the 2010 CBC. Municipal Code Chapter 16.24 establishes a Geologic Hazard Overlay District, the purpose of which is to ensure review procedures and setbacks are implemented for areas that are subject to potential geologic problems such as groundshaking, earthquake faults, liquefaction, and landsliding. This overlay applies to the Chino Hills fault hazard zone and areas where landslides, liquefaction hazards, and other geologic hazards are known or suspected to occur. Chapter 16.50 regulates grading in the City, and Chapter 16.54 addresses erosion and sediment control.

Chino Hills General Plan

There are no General Plan policies pertaining to geotechnical hazards that are directly applicable to implementing the Regional Reduction Plan in Chino Hills.

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
- 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

Baseline information to characterize geologic and soils conditions that could affect or be affected by the proposed project was compiled from readily available publications, including the General Plan, and available resource mapping. GHG reduction measures selected by the City of Chino Hills in the Regional Reduction Plan were reviewed to determine which actions could result in physical changes to the environment that could affect or be affected by seismic hazards, erosion, or other geologic or soils hazards.

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 State has delineated an Earthquake Fault Zone for the Chino Hills fault where it passes through Chino Hills. An earthquake on the Chino fault could produce strong groundshaking, which would cause extensive damage to buildings and infrastructure as a result of strong ground motions, ground rupture, and possibly liquefaction. Of the numerous faults that have been mapped in the Southern California region, those that could cause significant groundshaking in the City of Chino Hills also include the Whittier, Elsinore, Sierra Madre-Cucamonga, San Jose, San Andreas, Newport-Inglewood, and Norwalk faults.. However, implementation of reduction measures involving solar installations on existing housing, Smart Bus technologies, wastewater treatment plant equipment upgrades, and SBX 7-7 water conservation measures would not involve development of structures that could be susceptible to seismic hazards. There would be ***no impact***.

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

Implementation of reduction measures involving solar installations on existing housing, Smart Bus technologies, wastewater treatment plant equipment upgrades, and SBX 7-7 water conservation measures would not involve development of structures that would expose soil to erosion during construction or increase erosion potential on steep slopes. There would be ***no impact***.

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?

A large portion of the city has been mapped as susceptible to landsliding. Recently deposited stream sediments in canyon bottoms are susceptible to settling if subject to heavy loads, such as from building

foundations. However, implementation of reduction measures involving solar installations on existing housing, Smart Bus technologies, wastewater treatment plant equipment upgrades, and SBX 7-7 water conservation measures would not involve development of structures that could be susceptible to unstable geologic or soil hazards. There would be ***no impact***.

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?

Some of the soils and bedrock units that underlie Chino Hills have a moderate to high expansion potential. However, implementation of reduction measures involving solar installations on existing housing, Smart Bus technologies, wastewater treatment plant equipment upgrades, and SBX 7-7 water conservation measures would not involve development of structures that could be susceptible to expansive soil hazards. There would be ***no impact***.

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?

None of the reduction measures are related to or require the need for septic tanks or alternative wastewater disposal systems. There would be ***no impact***.

Cumulative Impacts

Future growth envisioned in the General Plan could be affected by seismic hazards or other geotechnical conditions, or could cause erosion. Geologic and soils hazards and erosion are typically site-specific and do not combine to produce cumulative effects. Policies in the General Plan, adherence to CBC and City standards for development, as established in the Municipal Code, would reduce impacts of development to the extent required by law.

The Regional Reduction Plan would not result in any direct or indirect significant effects related to geology and soils, and, therefore, implementation of the Regional Reduction Plan would not create impacts that are cumulatively considerable. Therefore, there would be ***no cumulative impact.***

References

California Geological Survey (CGS). 2003. *State of California Earthquake Fault Zones: Prado Dam Quadrangle*, May.

California Geological Survey, Seismic Hazards Mapping Program. 2008. *Official Maps Released in Southern California*.

Chino Hills, City of. 1994, as amended through 2008. *City of Chino Hills General Plan*, September 13.

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

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

4.4.7 Greenhouse Gas Emissions

This section of the EIR analyzes the potential environmental effects on greenhouse gas (GHG) emissions in the City of Chino Hills from implementation of the Regional Reduction Plan. Data for this section were taken from the Chino Hills General Plan (1994), associated environmental documents, and the San Bernardino County Regional Greenhouse Gas Reduction Plan (2012). 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 Hills emitted approximately 464,162 metric tons (MT) of carbon dioxide equivalents (CO_2e) in 2008. The emissions were calculated based on the 2012 RTP traffic modeling, data from utilities, and land use. The largest portion of the City's 2008 emissions were from transportation (57.2 percent), followed by emissions from electricity and natural gas use in buildings (35.0 percent). Table 4.4.7-1 (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 4.4.7-1 2008 Net Total Emissions

Category	*Metric Tons of CO_2e*
Energy	162,380
On-Road Transportation	265,707
Off-Road Equipment	14,628
Water and Wastewater	8,925
Solid Waste	6,831
Agriculture	5,691
Total	***464,162***
Excluded Stationary Sources under Title V Permits[a]	25,417

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,[5] 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 quality and supply of water to the state from the Sierra snowpack." As most of the state, including the

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

City of Chino Hills, 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[6] 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.

[6] 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 on-going 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 million tons of 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 million metric tons 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 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) (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 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. 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 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

Chino Hills General Plan

General Plan policies that are applicable to GHG emissions and reductions[7] are as follows:

Land Use Element

Policy 1-7 For all future developments, require preservation of 80% of all native trees with trunks 4 or more inches in diameter.

Policy 3-7 Residential and regional employment centers shall be linked through roadway Extensions.

Conservation Element, Water Usage and Conservation

Policy 3-1 Use reclaimed water for non-potable water supplies (e.g., landscaping) wherever economically feasible and not precluded by public health considerations.

Conservation Element, Air Quality

Policy 4-1 Reduce air pollution through coordinated land use, transportation, and energy use planning.

[7] 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 4-2 Endorse regional and local air quality and transportation management plans in order to reduce air pollution emissions and vehicle trips.

Policy 4-7 Develop a coordinated system of pedestrian pathways.

Policy 4-9 Encourage the use of energy conservation devices in project design and construction to increase energy efficiency and decrease pollution from distant electrical power plants and onsite natural gas use.

Policy 4-14 Promote all forms of transit serving the city and the urbanized portions of San Bernardino, Riverside, Los Angeles and Orange counties, including light rail and commuter rail service.

Policy 4-18 Support to the extent possible State and federal legislation which would improve vehicle/transportation technology and cleaner fuels.

Conservation Element, Energy Conservation

Policy 5-2 Encourage innovative site planning and building designs which minimize energy consumption by taking advantage of sun and shade patterns, prevailing winds, landscaping, and building materials.

Policy 5-3 Encourage new development and existing structures to install energy saving features beyond those required under State Title 24 energy regulations.

Conservation Element, Solid Waste Management

Policy 6-2 Publicize and educate the public about waste reduction techniques and facilities.

Policy 6-3 Require new developments to incorporate recycling locations into their sites.

Policy 6-4 Annually review waste collection performance to verify quality of service.

Parks, Recreation and Open Space Element

Policy 2-13 Locate the community centers where they are accessible to public transportation systems.

Policy 3-4 Require all new development projects to implement the Trails Master Plan.

Policy 7-3 Protect and carefully maintain the landscape to foster its value for air pollution mitigation, fire safety, wildlife habitat and recreation activities.

Policy 7-9 Design park facilities to minimize water use and maintenance demands.

Policy 7-10 Save water, control maintenance costs, reduce trash, and economize wherever possible through design, construction and management without sacrificing the quality of the landscape.

Policy 7-11 Follow water conservation principles in all aspects of landscape maintenance including plant selection and development of irrigation systems.

Policy 7-12 Consider using reclaimed water for irrigation of City landscapes when this source of water becomes available.

Policy 7-13 Develop a program for recycling green waste.

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 Hills for the following scenarios: 2008, 2020 business-as-usual, 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.

The GHG Reduction Target for the City is to reduce the GHG emissions predicted for 2020 business as usual by at least 20 percent.

The 2020 business-as-usual (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 City'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 California Air Pollution Control Officers Association (CAPCOA), other reference sources (such as the USEPA, California Energy Commission, California Air Resource Board, and Intergovernmental Panel on Climate Change), 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, 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. Year 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 metric tons of CO_2 equivalents (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 and are not 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 Hills totaled 25,417 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 Hills 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 4.4.7-2 (GHG Emission Inventories and Reductions in the City of Chino Hills) 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 Hills 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 4.4.0 (Introduction to the Analysis) of this EIR. Regional Reduction Plan Chapter 4 has additional details of these reduction measures.

Table 4.4.7-2 GHG Emission Inventories and Reductions in the City of Chino Hills

Category/Emission Source	*Metric tons of CO_2e*				
	2008	*2020 BAU*	*Plan Reductions*	*2020 with Plan*	*% Reduction*
Energy	162,380	173,369	49,040	124,328	28.3%
On-Road Transportation	265,707	265,709	74,014	191,696	27.9%
Off-road Equipment	14,628	15,040	1,344	13,696	8.9%
Wastewater Treatment	3,016	3,116	265	2,851	8.5%
Water Conveyance	5,909	8,790	1,906	6,883	21.7%
Solid Waste	6,831	11,754	80	11,674	0.7%
Agriculture	5,691	2,900	0	2,900	0.0%
GHG Performance Standard for New Development*	—	—	0	—	—
Total	***464,162***	***480,677***	***126,649***	***354,028***	***26.3%***
Reduction Target	**—**	**—**	**96,135**	**384,542**	**20.0%**
Does the Plan Meet the Reduction Target?			**Yes**	**Yes**	**Yes**
Reductions Beyond Target	**—**	**—**	***30,514***	**—**	**—**
Excluded Stationary Sources under Title V Permits[b]	25,417	33,375	—	—	—

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 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 Hills. The proposed project will result in a reduction of GHG emissions. Therefore, this impact is ***less than significant***, and no further 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 4.4.7-2 summarizes the 2008 GHG emissions for the City. The emissions in 2008 totaled 464,162 MT CO_2e. The largest source of emissions was transportation, followed by energy use.

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 4.4.7-2 summarizes the 2020 BAU emissions inventory. The emissions are estimated at 480,677 MT CO_2e, an increase of 16,515 MT CO_2e (or 3.6 percent) from the 2008 baseline. Similar to the 2008 inventory, the largest source of emissions is predicted to be transportation followed by emissions associated with energy use. The

difference between the BAU-forecasted emissions and the established reduction target for the year 2020 is 96,135 MT CO_2e. This is the amount the City must reduce in order to reach their target. Implementation of the Regional Reduction Plan reduces 126,649 MT CO_2e of emissions in 2020 which exceeds the reduction goal by approximately 30,514 MT CO_2e. This is a reduction of approximately 26.3 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, solar installation for existing housing 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 Hills chapter of the Regional Reduction Plan demonstrates that the City exceeds its fair share of reductions, which was set at 20 percent below the 2020 emissions. All of the reduction measures in the Chino Hills 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 4.4.0 of this EIR and are described in further detail in Chapter 4 of the Regional Reduction Plan.

The City will participate in the Regional Reduction Plan reduction measure On-Road-2 ("Smart Bus" Technology), which helps implement SCAG's SCS within Chino Hills. SB 375 requires SCAG to provide an 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. Smart Bus Technologies are expected to increase transit ridership and reduce VMT and the associated emissions.

- **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 provide General Transit Feed Specification (GTFS) data to the general public to build apps for mobile devices like smart phones 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 will coordinate with Omnitrans as appropriate.

The following discussion summarizes the General Plan policies that correlate with this reduction measure implementing Smart Bus Technologies within the City of Chino Hills:

On-Road Transportation-2 ("Smart Bus" Technologies)

Policy 3-4	Require all new development projects to implement the Trails Master Plan.
Policy 3-7	Residential and regional employment centers shall be linked through roadway Extensions.
Policy 3-13	Locate the community centers where they are accessible to public transportation systems.
Policy 4-1	Reduce air pollution through coordinated land use, transportation, and energy use planning.
Policy 4-7	Develop a coordinated system of pedestrian pathways.
Policy 4-14	Promote all forms of transit serving the city and the urbanized portions of San Bernardino, Riverside, Los Angeles and Orange counties, including light rail and commuter rail service.

The Regional Reduction Plan provides the GHG reductions contemplated by SB 375 by implementing SCAG's SCS strategy in Chino Hills. Therefore, this impact is ***less than significant***. No mitigation is required.

Cumulative Impacts

The analysis of GHG emissions is cumulative in nature, and no separate analysis is required.

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4.4.8 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 Hills from implementation of the Regional Reduction Plan. Geologic and flood hazards are addressed separately in Section 4.4.6 (Geology/Soils) and Section 4.4.9 (Hydrology/ Water Quality), respectively. Data for this section were taken from the Chino Hills General Plan (1994), associated environmental documents, and the Chino Hills Hazard Mitigation Plan (2005). 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. Some sites may require reporting by one or more agencies, depending on the nature of the problem. Licensed transporters of hazardous substances and wastes are also subject to reporting requirements.

Airports

There are no airports within the City. The closest airports to the City are the Chino Airport, located approximately six (6) miles east of the City's boundary; the Los Angeles/Ontario International Airport, located approximately eight (8) miles to the northeast of the City; and the John Wayne Airport, located approximately 25 miles from the City.

Wildland Fires

There are three different classes of wild land or wildfires. A surface fire is the most common type and burns along the floor of a forest, moving slowly and killing or damaging trees. A ground fire is usually started by lightning and burns on or below the forest floor. Crown fires spread rapidly by wind and move quickly by jumping along the tops of trees. Wildfires are usually signaled by dense smoke that fills the area for miles around. Wildfires present a significant potential for disaster in the southwest, a region of relatively high temperatures, low humidity, and low precipitation during the summer, and during the spring, moderately strong daytime winds. Combine these severe burning conditions with people or lightning and the stage is set for the occurrence of large, destructive wildfires (Chino Hills 2005).

Open space and canyon areas in the city are covered with chaparral, coastal sage scrub, deciduous woodlands, and grasslands. Introduced vegetation includes landscaping plants and agricultural species. The chaparral and coastal sage plant communities are highly combustible due to the volatile oils contained in the plant tissues. Wildfires in the city pose a high threat to natural resources, structures, and human safety. The high risk posed by fires in the city is due to the combined effects of climate (dry summers with Santa Ana wind conditions); steep, rugged terrain (limiting accessibility to fire-fighting vehicles and personnel); vegetation (highly flammable chaparral and similar plant communities that contain high concentrations of volatile oils); and development patterns (wildland and urban areas intermixed in the foothills and near canyon bottoms where development is located adjacent to highly flammable native vegetation). Approximately 80 percent of the City of Chino Hills is located within San Bernardino County designated Fire Safety Review Area 1 (FR1, or Area 1), a very high to extreme fire hazard zone (Chino Hills 2005). This generally consists of the State Park (1/3 of City), the Tres Hermanos area (westerly portion of City), the Carbon Canyon area, and the southern portion of the City generally west of Butterfield Ranch Road and south of Soquel Canyon Drive The rest of the City is located in Fire Safety Review Area 2 (FR2, or Area 2). The City has provided a Fire Hazard Overlay District that identifies the areas within the County's FR1 as having a high to extreme fire hazard potential and provides additional development design requirements under Section 16.06.160 (Fire Restrictive Design Requirements) of the City's Municipal Code. Figure 4.4.8-1 (Fire Hazard Overlay District) shows the location of fire hazards in the City.

As defined by the County, the FR1 includes wildland areas that are marginally developable, areas which are not likely to be developed, and the area of transition between wildland and areas that are partially developed or that are likely to be developed in the future. The transition area is often characterized by an abrupt change in slope. The natural ungraded slopes in Area 1 are often greater than 30 percent (Chino Hills 2005). FR2 includes land that is relatively flat and is either partially or completely developed, or undeveloped and suitable for development. Present and future development in Area 2 is exposed to the impacts of wildland fires due to its proximity to Area 1 (Chino Hills 2005).

Regulatory Framework

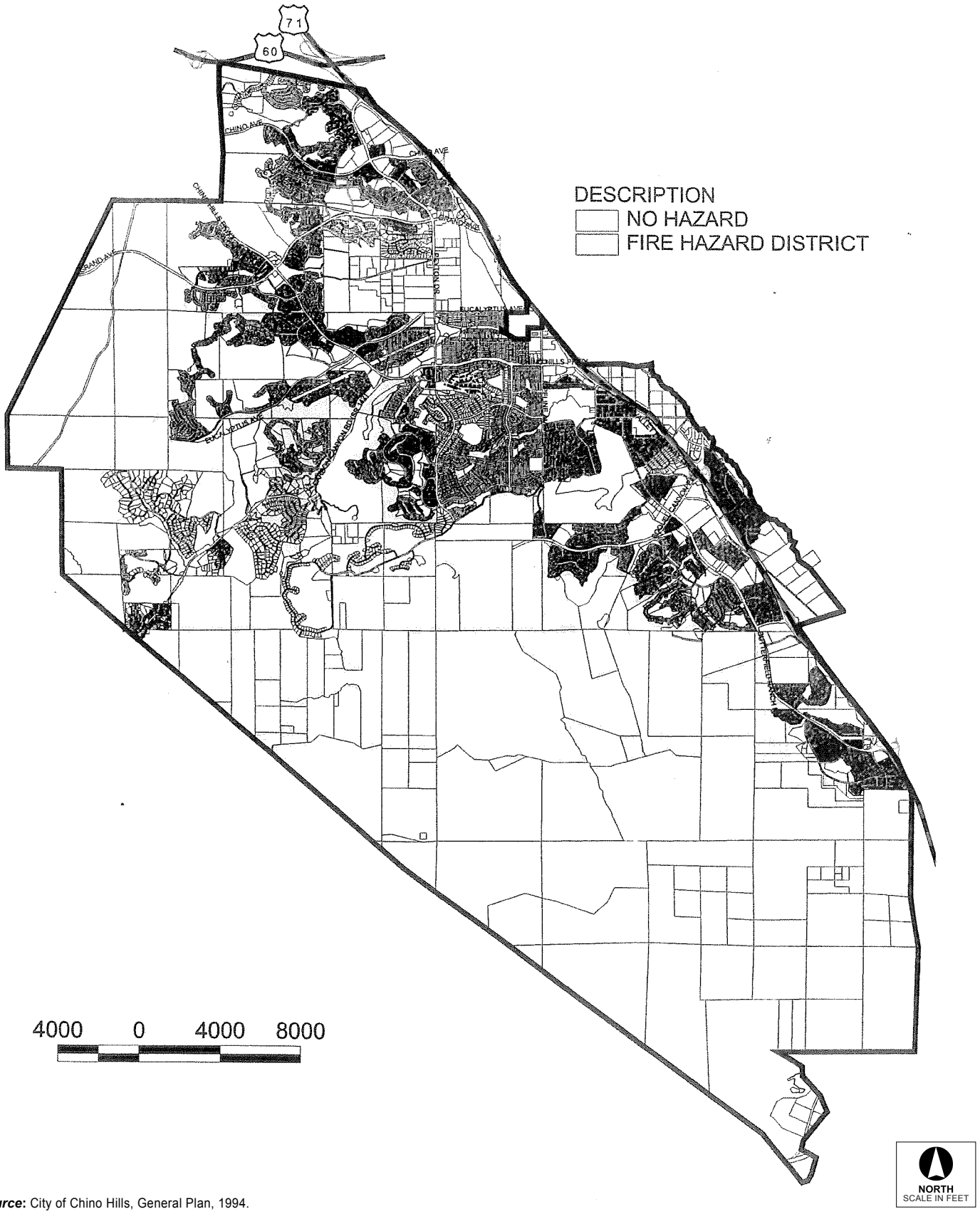
There are many federal, state, and local programs that regulate the use, storage, and transportation of hazardous materials and hazardous waste, and they are constantly changing. Federal and state statutes, as well as local ordinances and plans regulate hazardous waste management. These regulations can 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



***Source*:** City of Chino Hills, General Plan, 1994.

Figure 4.4.8-1
Fire Hazard Overlay District

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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 U.S. 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 Hills, 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 two 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 thirty 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.

Local

City of Chino Hills Hazard Mitigation Plan

The Disaster Mitigation Act of 2000 (DMA 2000), Section 322 (a–d) requires that local governments, as a condition of receiving federal disaster mitigation funds, have a mitigation plan that describes the process for identifying hazards, risks and vulnerabilities, identify and prioritize mitigation actions, encourage the development of local mitigation and provide technical support for those efforts. The City of Chino Hills Hazard Mitigation Plan serves to meet those requirements.

City of Chino Hills Municipal Code

Through Municipal Code Chapter 8.16, the City has adopted the 2007 California Building Code, including Sections 701A et seq., which define specifications for exterior materials and construction methods for structures located in wildfire hazard areas. These regulations pertain to any new building located within a Local Agency Very High Fire Hazard Severity Zone or within a State Responsible Moderate, High, or Very High Fire Hazard Severity Zone. The purpose of this section is to protect life and property by increasing a building's ability to resist the intrusion of flames or burning embers projected by a vegetation fire. The provisions of this section address roofing, exterior walls, decking, and ancillary buildings.

Chino Hills General Plan

General Plan policies that are applicable to hazardous materials[8] are as follows:

Safety Element, Fire Hazards

Policy 4-1.1 Improve fire flow capabilities in the city by upgrading the water distribution system so that it can deliver the fire flow requirements set in the Fire Code adopted by the City. Priority should be given to upgrading fire flow capabilities in the Los Serranos and Carbon Canyon areas, and other sections of the city where the Fire District has noticed deficiencies.

Policy 4-1.2 Old cast-iron pipelines and inadequately sized water mains shall be replaced when street improvements are made.

Policy 4-1.3 Provide for redundant emergency distribution pipelines in areas of potential ground failure or where deemed necessary by the Fire District and the Public Works Department.

Policy 4-1.4 Inspect water hydrants and conduct fire flow tests on an annual basis, with priority given to high fire hazard areas.

[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 4-1.5 Ensure that existing multi-unit or high occupancy facilities maintain minimum acceptable rates of fire flow, as established in the Fire Code adopted by the City.

Policy 4-1.6 Coordinate with the Chino Valley Independent Fire District to support the development of secondary water supplies for emergency fire flow needs, including supplementary gravity-fed municipal water tanks and auxiliary water distribution systems, especially in areas of potential ground failure.

Policy 4-2.1 Ensure that fire suppression and law enforcement services, including availability of fire equipment and personnel, infrastructure, and response time, are adequate to respond to a major disaster.

Policy 4-2.2 Require construction of new fire station facilities and/or the relocation of existing facilities to comply with accepted service level criteria.

Policy 4-2.3 Upgrade and revise the Fire Hazards areas as needed based on development growth patterns and improvements of the fire suppression systems. This should be conducted under authority of the Chino Valley Independent Fire District.

Policy 4-3.1 Require mandatory transportation standards related to access, driveways, cui-de-sacs, and access into open areas.

Policy 4-3.2 Require mandatory land use standards related to submission of development plans and provisions of area fire protection services.

Policy 4-3.3 Encourage owners of structures with unrated roof covering materials, and with Class Band lesser fire-resistive roof covering materials, to upgrade to Class A fire-resistive construction, including fire-resistive eaves, awnings, and sidings.

Policy 4-3.4 Require the installation of sprinkler systems in buildings that are not readily accessible to firefighting equipment and apparatus or do not meet minimum fire flow and fire hydrant requirements.

Policy 4-3.5 Require mandatory building standards related to building setbacks, fire-retardant roof materials, siding materials, exposed horizontal surfaces, chimneys, fire sprinkler systems, and use of fire-resistive construction materials.

Policy 4-4.1 Continue to support and implement fuel modification zones around housing tracts.

Policy 4-4.2 Consider implementing a vegetation management plan, including prescribed burning, in the undeveloped areas of the city.

Policy 4-4.3 Encourage residents to plant and maintain fire-retardant slope cover to reduce the risk of brush fire in areas adjacent to canyons; and develop stringent site design and maintenance standards for areas with high fire hazard potential.

Policy 4-5.1 Continue to provide for public education programs to enhance public awareness of fire safety, including the storage of flammable materials, use of fire-retardant building materials, and vegetation management in the perimeter of structures.

Policy 4-5.2 Provide public information and support private efforts to restrain gas-fired appliances in residential buildings. Encourage the installation of earthquake-triggered automatic gas shut-off sensors in high-occupancy facilities and in industrial and commercial structures.

Policy 4-5.3 Encourage the Fire District to review its agreement to coordinate for mutual aid and fire services with fire agencies from adjacent cities and counties.

Policy 4-5.4 Work with the Fire District to enforce all existing codes and ordinances regarding fire protection, including building inspection and vegetation management.

Policy 4-5.5 Require high-risk areas to have community-based support systems to aid the Fire District and residents.

Policy 4-6.1 Develop improved circulation within the city and improved access to outlying areas for efficient movement of firefighting equipment and the safe evacuation of residents.

Policy 4-6.2 Develop evacuation plans for areas in greatest danger of fire.

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 solar arrays on existing homes and the reduction of vehicle trips and vehicle miles traveled through implementation of smart bus technologies. The GHG reductions do not involve the transport or use of hazardous materials. Transport and disposal of hazardous materials are regulated by current federal and state regulations, City ordinances, and the 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 solar arrays on existing homes and the reduction of vehicle trips and vehicle miles traveled through implementation of smart bus technologies. 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. Implementation of all measures would be regulated by the California health and safety code and the City's health and safety codes. These regulations 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. The Regional Reduction Plan reduces GHG emissions citywide and includes reduction measures such as solar arrays on existing homes and the reduction of vehicle trips and vehicle miles traveled through implementation of smart bus technologies. Implementation of the measures would be regulated by the applicable state and local 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. Additionally, the reduction measures that Chino Hills will implement would not create hazards. Solar arrays will be installed on existing residences and would be reviewed by the City to ensure compliance with the City's Development Code. Therefore, 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?

There are no airports in the City of Chino Hills. Therefore, there would be ***no impact***.

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?

There are no airports in the City of Chino Hills. Therefore, there would be ***no impact***.

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 solar arrays on existing homes and the reduction of vehicle trips and vehicle miles traveled through implementation of smart bus technologies. None of the reduction measures would alter emergency response or evacuation plans. All development within the City would be reviewed by the City Planning Department to ensure compliance with the City Municipal Code. 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?

Fire hazard areas in the City are shown in Figure 4.4.8-1. Approximately 80 percent of the City of Chino Hills is located within the City's Fire Hazard Overlay District, a very high to extreme fire hazard zone. To help protect the City and its residents from fire hazards, the City has adopted building and fire codes that must be followed. All development plans would be reviewed by the City to ensure their compliance with the fire code. Additionally, General Plan policies listed above under "General Plan Policies" would further prevent or minimize fire hazards. 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 would be less than significant***.

References

Chino Hills, City of. 1994, as amended through 2008. *City of Chino Hills General Plan*, September 13.

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

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

4.4.9 Hydrology/Water Quality

This section of the EIR analyzes the potential environmental effects on hydrology/water quality, including flood hazards, in the City of Chino Hills from implementation of the Regional Reduction Plan. Data for this section were taken from the Chino Hills General Plan (1994), associated environmental documents, and the 2010 Urban Water Management Plan (2012). 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

Regional Drainage

The Santa Ana River Watershed includes portions of San Bernardino, Orange, and Riverside Counties and covers approximately 2,800 square miles. The Santa Ana River is the main surface drainage course in the region, and the largest river in the basin. It is approximately 75 miles long. The river originates in the San Bernardino Mountains, travels southwest, and terminates at the Pacific Ocean near the Huntington Beach/Newport Beach city boundary. Water flow in the river is regulated by the Prado Dam, the Seven Oaks Dam, and other flood-control facilities along the river and its tributaries.

Local Surface Waters

The Chino Hills landscape is comprised of a system of canyons, streams, floodplains, ridges, and hillsides. The streams, watercourses, and pools which run through the hills usually lie at the bottom of canyons and drainage ravines, and carry intermittent waters to the Prado Flood Control Basin of the Santa Ana River. Runoff from the city generally drains east and south, toward Chino Creek and Prado Flood Control Basin, and on to the Santa Ana River Basin. Canyons on the west side of the city, including Tonner Canyon, Carbon Canyon, Soquel Canyon, and Aliso Canyon, drain westward toward Los Angeles and Orange counties. With the exception of Tonner Canyon, which drains into the San Gabriel River watershed, the remaining canyons drain into lower reaches of the Santa Ana River Basin.

Drainage facilities in Chino Hills include a series of concrete-lined and improved unlined channels, concrete culverts, and several detention and debris basins. The storm drain facilities in the east side of the city drain into the Chino Creek Channel, a concrete channel along Chino Creek. This channel as well as the main storm channels in the city along English Road and Little Chino Creek; the channel that extends east and southeast from Los Serranos Lake to Chino Creek; and the lined channel that extends from the southern end of Pipeline Avenue east toward the Chino Valley Freeway (State Highway 71), and then southeast along the Expressway are maintained by the San Bernardino County Flood Control and Water Conservation District.

Groundwater

An important source of water for the City of Chino Hills is the Chino Groundwater Basin, a major aquifer system in the Santa Ana River watershed which provides both local yield and seasonal carry-over

storage for water purveyors in the region. The City obtains about half of its water supply from groundwater.

The Chino Basin is one of the largest groundwater basins in Southern California, covering approximately 235 square miles of the Upper Santa Ana River Valley. The basin is bounded by the Rialto-Colton Fault on the northeast, the Jurupa Mountains and La Sierra Hills to the southeast, the Central Avenue Fault to the southwest, and the San Jose Fault and Red Hill Fault to the northwest. The basin currently contains approximately 5,000,000 acre-feet of water and has an unused storage capacity of about 1,000,000 acre-feet. Groundwater is produced from the basin by cities and other water supply entities and by about 300 to 400 agricultural users overlying the basin. Prior to 1978, the basin was in overdraft. After 1978, the basin has been managed via ongoing court adjudication in the 1978 judgment Chino Basin Municipal Water District vs. City of Chino et al.

The average safe yield of the Basin is approximately 145,000 acre-feet/year (afy). This water is allocated among three "pools" of users: the Overlying Agriculture Pool (82,800 afy), the Overlying Non-Agricultural Pool (7,366 afy) and the Appropriative Pool for urban uses (54,834 afy). Additional groundwater production (in excess of the safe yield) is allowed by the adjudication provided that the pumped water is replaced with replenishment water. In addition, groundwater is re-allocated to the Appropriative Pool for urban use from the Overlying Agricultural Pool when it is not pumped by the agricultural users. Over time, as agricultural production declines, the reallocation of groundwater to the Appropriative Pool is expected to increase. Management of the Chino Basin is now guided by the "Peace" and "Peace II" Agreements of the Optimum Basin Management Program (OBMP), which is described in more detail in following sections. Annual groundwater production in recent years from the City's wells ranges from 852 afy (2005–06) to over 3,100 afy, currently contributing 16 percent of the City's total supply (Chino Hills 2012).

Flood Hazards

All the canyons in the city are prone to seasonal flooding. Localized flooding has occurred historically in the Chino Hills area, generally because drainage facilities are too small to convey the storm flows generated from increased urbanization and paved surfaces in the area. Severe erosion along many natural channels, and debris-clogged drainages, compound the problem. Localized flooding has been known to occur in some areas of the city, notably the lowlands bounded by Pipeline, Eucalyptus, and Merrill avenues and the Chino Creek Channel, and the section of Peyton Road between Eucalyptus Avenue and Carbon Canyon Road (Chino Hills 1994). Sheet flooding has also occurred in the Los Serranos area north of the golf course and along portions of English Road.

Portions of what is now the city of Chino Hills were mapped in the 1980s by the Federal Insurance Administration (FIA) as part of its National Flood Insurance Program. Most of the area mapped was designated Zones C and D on the Flood Insurance Rate Maps (Chino Hills 1994). Zone C covers those areas of minimal flooding. Zone D is identified as an area of undefined, but possible, flood hazards. Areas on both sides of Carbon Canyon Creek and Little Chino Creek have been classified into Zones A and B. Zone A is the 100-year flood plain. In Chino Hills, those portions of Zone A where the base flood elevations and flood hazard factors have been determined were subdivided into Zones A4 and A5. Zone B is defined as the area falling between the limits of a 100-year and 500-year flood; or certain areas

subject to 100-year flooding with average depths less than one foot or where the contributing drainage area is less than 1 square mile; or areas protected by levees from the base flood. The basic flood Zones A, B, C, and D mapped in the Chino Hills area are shown on Figure 4.4.9-1 (Flooding and Inundation Hazards).

There are two small dams within Chino Hills. Los Serranos Lake (also known as Rancho Cielito Reservoir) and Chino Ranch No. 1 Dam (or Arnold Reservoir) which could cause localized flooding if damaged. The possibility of inundation in the event of a catastrophic dam failure is remote (Chino 2005). The lowlands in the city could be impacted if San Antonio Dam (located in San Antonio Canyon within the San Gabriel Mountains, about ten miles north of the city) failed while filled to capacity. A small portion of the city along its southeastern border would also be flooded if Prado Dam, located southeast of the city, failed catastrophically while full.

Seiches

A seiche is a surface wave created when an inland body of water is shaken, usually by earthquake activity. Seiches could occur in both Los Serranos Lake and Arnold Reservoir during an earthquake. Several small reservoirs or ponds used for stock water, wildlife management, and natural habitat preservation are located in Chino Hills through Aliso Canyon, Bane Canyon, Water Canyon, and Brush Canyon watersheds. In addition, there are several small man-made lakes or ponds that are used for landscaping and recreation purposes. These ponds may be susceptible to seiching, with resultant small-scale, localized flooding if the structures contain water at the time of an earthquake (Chino Hills 1994). Additionally, there are a number of above-ground water storage tanks in the City. If a moderate to strong earthquake occurred on the Chino fault, these tanks could be damaged, releasing their stored waters and flooding adjacent developments located down-slope.

Mudflows

A mudflow is a type of landslide composed of saturated rock debris and soil with a consistency of wet cement. Older hillside areas of the city developed prior to implementation of the current Unified Building Code are susceptible to mudflows.

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

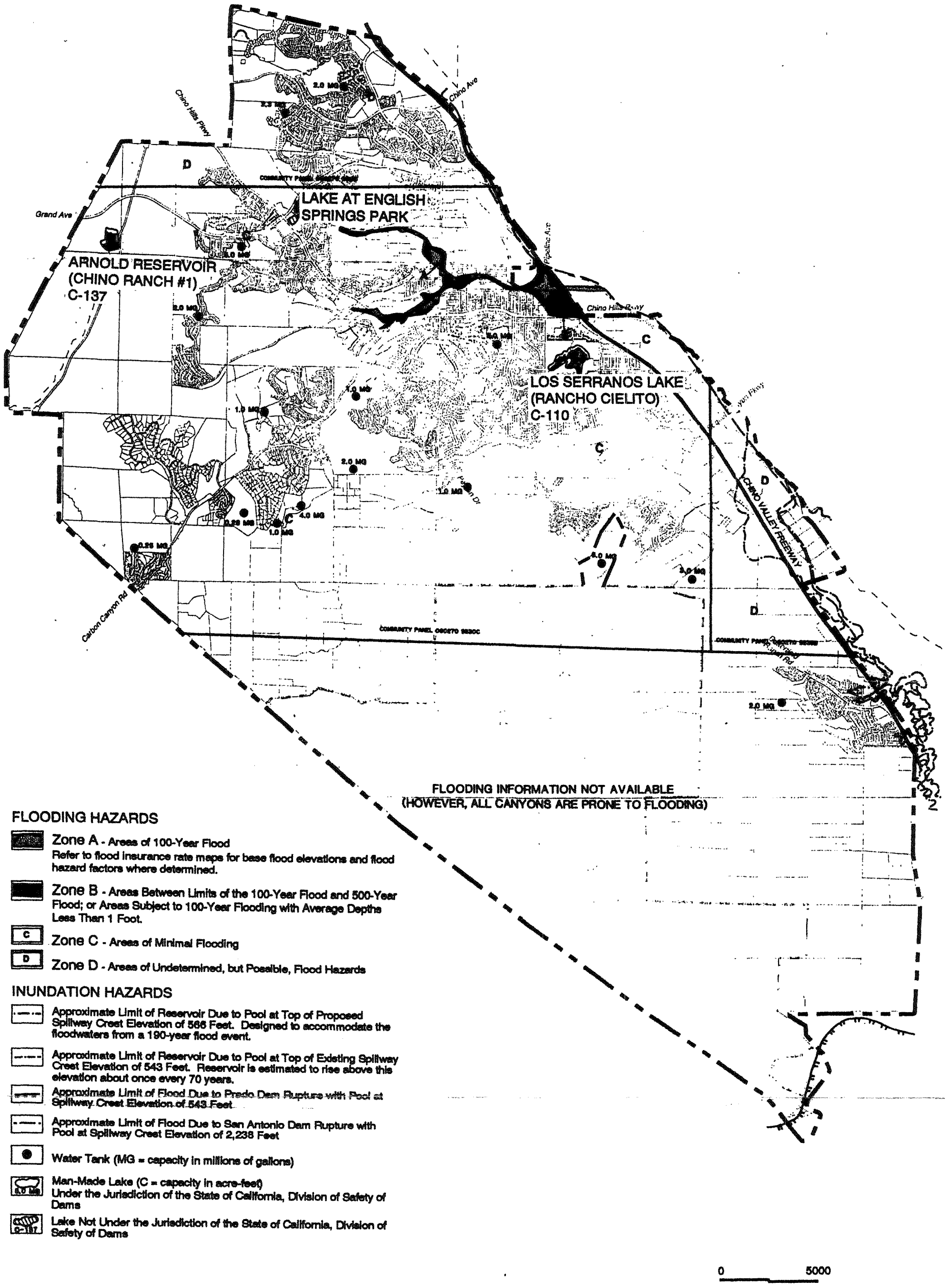
restore, maintain, and preserve the integrity of the nation's waters. The CWA regulates both the direct and indirect discharge of pollutants into the nation's waters and sets water quality standards for all contaminants in surface waters. It is unlawful for any person to discharge any pollutant from 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 Hills. 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



***Source*:** City of Chino Hills.

Figure 4.4.9-1
Flooding and Inundation Hazards

ATKINS

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 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.

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 one acre. The MS4 permit in effect in the City of Chino Hills is Order R8-2002-0012 issued by the Santa Ana Regional Water Quality Control Board in April 2002.

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. 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 Hills, 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 the US Army Corps of Engineers 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 Hills 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 an 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.

Local

City of Chino Hills Municipal Code

The City of Chino Hills Flood Damage Prevention and Floodplain Management is included as City Municipal Code Chapter 15.12. The Code applies to all areas of special flood hazards, areas of flood-related erosion hazards and areas of mudflow hazards within the City. The FDPP includes standards for construction, for utilities, subdivisions, manufactured homes, and floodways. Construction standards include requirements for anchoring, floodproofing, and minimum elevations of floors.

Municipal Code Chapter 16.54 (Erosion and Sediment Control) is design to eliminate and prevent accelerated erosion that has led to, or could lead to, degradation of water quality, damage to property, loss of topsoil and vegetation cover, disruption of water supply, increased danger from flooding and the deposition of sediments and associated nutrients.

Chino Hills General Plan

The General Plan policies that are applicable to hydrology, water quality and flood hazards[9] are as follows:

[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.

Safety Element, Flood and Inundation Hazards

Policy 3-1.1 Prohibit development of residential, commercial/industrial, and critical facilities in the100-year flood plain and in canyon bottoms.

Policy 3-1.2 Discourage development of critical facilities proposed in dam inundation areas.

Policy 3-1.3 Coordinate with the U.S. Army Corps of Engineers, the San Bernardino County Flood Control and Water Conservation District, and land use agencies to keep current on the proposed improvements to the Prado Dam Basin. Detailed studies on the effects of a higher reservoir elevation to those areas of the city that would be impacted by these modifications (including Los Serranos and the Butterfield Ranch areas) should be conducted and appropriate mitigation measures, if necessary, identified.

Policy 3-1.4 Encourage the preparation of dam inundation maps for Lake Los Serranos and Arnold Reservoir to evaluate the potential for injury and loss of life, and damage to public and private property, as a result of inundation resulting from catastrophic failure of these dams. If the risk from inundation is considered to be too great to critical facilities and/or residential structures, the structures that could be impacted should be relocated, or the reservoir levels lowered, to reduce the risk to an acceptable level.

Policy 3-1.5 Require that State-certified structural engineers design proposed water tanks to withstand high ground accelerations. The water tanks should be baffled and braced to reduce the potential for structural damage, with resultant failure and· flooding of areas down-slope, as a result of water in the tanks sloshing back and forth with great force during an earthquake. Existing water tanks should be inspected and retrofitted as necessary.

Policy 3-3.1 Design the drainage system to adequately handle future flows and alleviate potential flooding hazards associated with increased urbanization in the city. The drainage system for the area should include retention basins to retard the volume and velocity of storm runoff, debris basins to trap sediment that otherwise could clog channels resulting in overflows and related flooding and erosion, and channel modification within unlined channels to reduce the water's velocity.

Policy 3-3.2 Require that the potential environmental drainage impacts of new construction be assessed, including the impact that privately owned and operated storm drains adjacent to slopes and canyon areas would have on City and County-maintained drains.

Policy 3-3.3 Review individual project designs to ensure that proposed drainage facilities will be properly linked with community-wide drainage facilities.

Policy 3-3.4 Coordinate the construction of a comprehensive storm drain system with individual projects in the General Plan area to ensure that all new development will be adequately protected from flooding prior to completion of the backbone system.

Policy 3-3.5 Develop a schedule for funding of all flood control backbone facilities, including phasing.

Policy 3-3.6 Require that homeowners install and maintain storm drains in their properties.

Policy 3-3.7 Strengthen storm drain maintenance district efforts to prevent local flooding, and to prevent mud and debris flows from overtaxing storm drains during strong storms.

Policy 3-4.1 Require that measures be undertaken to control runoff from construction sites.

Policy 3-4.2 Require prompt re-vegetation and/or construction of newly graded sites to control erosion.

Policy 3-4.3 Limit grading operations during the rainy season.

Policy 3-4.4 Review individual project designs to ensure the stability of slopes adjacent to flood control facilities, which could be blocked due to slope failures.

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. It is unlikely that implementation of the Regional Reduction Plan reduction measures would result in runoff during construction that could adversely affect water quality beyond standards specified by the SWRCB. In the unlikely event of construction runoff, all reduction measure development requiring ground disturbance would be subject to regional and local regulations including the need for an 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 an 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 utilizes solar energy generation systems (i.e. Solar PVs) for existing housing and introduces smart bus technologies which would not increase the impermeable surface area such that groundwater recharge would be substantially affected. Solar arrays 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?

Water efficiency strategies, passive energy-producing components such as photovoltaic arrays, and smart bus technologies would not alter existing drainage patterns in the City, as they would consist of structural alterations, not an increase in overall building footprint. Solar arrays would be installed for existing homes, therefore, would not affect vacant land, hillsides, or open space areas. Additionally, 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?

The reduction measures under the Regional Reduction Plan would be focused in areas where development already exists. Solar installation for existing housing, smart bus technologies, and water efficiency strategies would not alter the existing drainage pattern of sites or region. These reduction measures would not result in the alteration of the course of a stream or river. Additionally, the City's Flood Damage Prevention and Floodplain Management, Municipal Code Chapter 15.12, includes provisions for preventing or regulating the construction of flood barriers that would unnaturally divert floodwaters or which may increase flood hazards in other areas. General Plan Policies 3-1.1 through 3-4.4 reduce the risk from flooding throughout the City by restricting development in flood prone areas. Consequently, 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 Regional Reduction Plan does not propose development of any new facilities within a road right-of-way or other areas that may impact storm drains. As discussed above, the reduction measures under the Regional Reduction Plan would be focused in areas where development already exists. Solar installation for existing housing, smart bus technologies, and water efficiency strategies would not create runoff as they would not increase impermeable surface areas. Solar arrays would be installed on the roofs of existing residences without increase impermeable surface. Additionally, compliance of City provisions including the Flood Damage Prevention and Floodplain Management would further reduce and 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***.

Threshold	Would the project place within a 100-year flood hazard area structures that would impede or redirect flood flows?

The Regional Reduction Plan does not propose any new facilities or infrastructure within the City and 100-year flood hazard areas. The reduction measures under the Regional Reduction Plan include solar arrays for existing housing, smart bus technologies, and water efficiency strategies. These measures would be additions to existing development, and all development in the City would have to comply with the City's Municipal Code, including the Flood Damage Prevention and Floodplain Management. 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?

The Regional Reduction Plan does not propose any new facilities or infrastructure within the City. The reduction measures under the Regional Reduction Plan include solar arrays for existing housing, smart bus technologies, and water efficiency strategies. These measures would be additions to existing development. All development in the City would have to comply with the City's Municipal Code, including the Flood Damage Prevention and Floodplain Management. The Code prohibits development in areas where dam or levee failure could result in flooding. Therefore, the impact would be ***less than significant***. No mitigation is required.

Threshold	Would the project inundation by seiche, tsunami, or mudflow?

As discussed above, the Regional Reduction Plan does not propose any new facilities or infrastructure within the City. The reduction measures under the Regional Reduction Plan include solar arrays for existing housing, smart bus technologies, and water efficiency strategies. These measures would be additions to existing development. All development in the City would have to comply with the General Plan policies and the City's Municipal Code, including the Flood Damage Prevention and Floodplain Management. The Code and General Plan policies prohibit development in areas with potential seiche or mudflow hazards. 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 would be less than significant***.

References

Chino Hills, City of. 1994, as amended through 2008. *City of Chino Hills General Plan*, September 13.

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4.4.10 Land Use/Planning

This section of the EIR analyzes the potential environmental effects on land use/planning in the City of Chino Hills from implementation of the Regional Reduction Plan. Data for this section were taken from the Chino Hills General Plan (1994) and associated environmental documents. 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

The City of Chino Hills is located in the southwest corner of San Bernardino County. A small portion of the southern and eastern City boundaries coincides with the Riverside County boundary. The southwestern City boundary is the Orange County border and the western and northern city boundaries are defined by the Los Angeles County border. The southeastern City boundary is the Riverside County border. The northeastern City boundary is generally defined as State Route 71 (SR-71) with the exception of developed and agricultural land east of SR-71 between Chino Hills Parkway and Pine Avenue. The surrounding cities include Pomona to the north, Chino to the east, Brea and Yorba Linda to the southwest, and Diamond Bar to the northwest.

The predominant development pattern in the City is the clustering of residential tracts within defined development areas with the steeper topography set aside as open space, as illustrated in Figure 4.4.10-1 (General Plan Land Use Map). A mix of medium- and higher-intensity apartment and townhouse projects is located within each development area. Most of the developable residential lands are built out. The remaining available residential sites are predominantly located in the hillside and environmentally sensitive areas. Commercial uses and services are concentrated along the major thoroughfares within the City. The City borders Chino Hills State Park, which comprises 16,000 acres of open space. The Chino Hills State Park Reserve dominates the southern portion of the City, accounting for approximately 14,102-acres or 2.67 square miles of the City's approximately 28,816 acres of 45-square mile planning area.

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.

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:

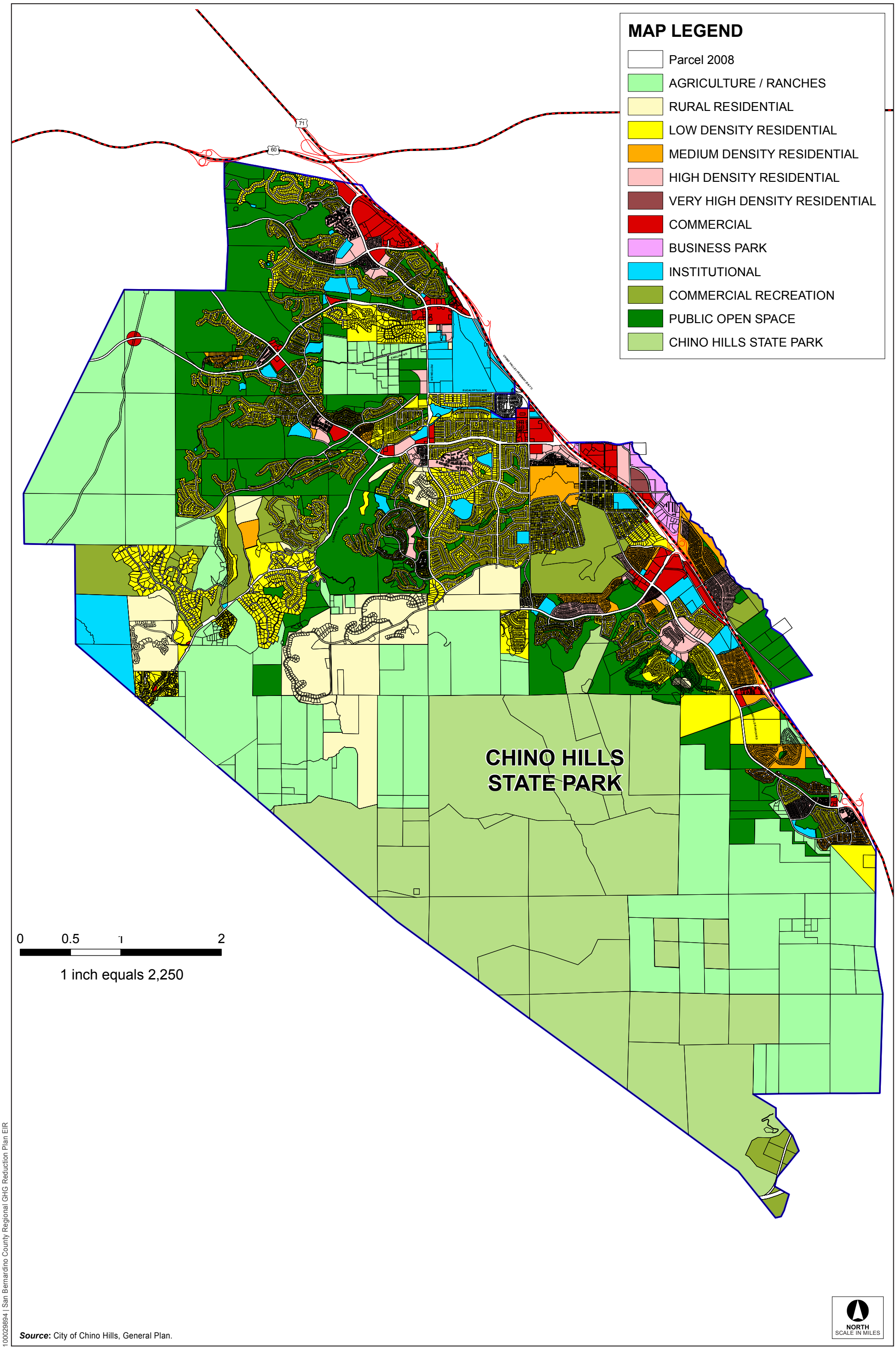
- By 2010, California shall reduce GHG emissions to 2000 levels
- By 2020, California shall reduce GHG emissions to 1990 levels
- By 2050, California shall reduce GHG emissions to 80 percent below 1990 levels

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).



***Source*:** City of Chino Hills, General Plan.

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Figure 4.4.10-1
General Plan Land Use Map

ATKINS

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 Corona Climate Action Plan (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.

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 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.

South Coast Air Quality Management District (SCAQMD)

The City of Chino Hills 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

City of Chino Hills Municipal Code

City Municipal Code Title 16 is the Development Code. It establishes zoning districts and development regulations for each land use. Development Code Section 16.06.140 provides exemptions for solar water heaters and photovoltaic units in residential zones from prohibitions of roof-mounted equipment on single-family detached units.

Chino Hills General Plan

The Chino Hills General Plan policies that are applicable to land use/planning[10] are as follows:

[10] 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.

Land Use Element

Policy 3-1 Create a broad range of employment opportunities for Chino Hills residents which are compatible with the community's low density residential character and the skills and education of Chino Hills' work force.

Policy 3-2 Concentrate major business park and commercial uses, which represent a potential employment base, near the Chino Valley Freeway corridor.

Policy 3-7 Residential and regional employment centers shall be linked through roadway extensions and through implementation of transportation management policies contained in the Circulation Element

Policy 3-8 Work with local agencies and jurisdictions to promote employment growth coordinated with the availability of adequate housing and transportation.

Housing Element

Policy 1.1 Provide a variety of residential opportunities in the City, including large lot estates, low density single- family homes, medium density townhomes, and higher density condominiums and apartments.

Air Quality Element

Policy 4-1 Reduce air pollution through coordinated land use, transportation, and energy use planning.

Policy 4-3 Locate multi-family development close to commercial areas to encourage pedestrian rather than vehicle traffic.

Policy 4-4 Develop a balance of land uses within the city to promote a reduction of distance between residence and workplace.

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 AQMP, SCAG's Regional Comprehensive Plan and Guide (RTP and Compass Growth Visioning), the Chino Hills General Plan, and the City's Development Code.

Effects Not Found to Be Significant

Threshold	Would the project physically divide an established community?

The developed portion of City of Chino Hills is a highly urbanized area with well-established communities integrated into the land use plan. Implementation of the Regional Reduction Plan measures selected by Chino Hills (solar energy systems on existing housing, Smart Bus technologies, wastewater treatment plant equipment upgrades, and water efficiency measures) would not involve the development of any new structures or projects that would physically divide an established community. There would be ***no impact***.

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 AQMP, SCAG's Regional Comprehensive Plan and Guide, 2012 RTP and SCS, and the City's Zoning Code.

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 Hills community GHG emissions to a level that is 20 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 (~85 percent) and local (~15 percent) efforts. The City actually exceeds the goal with only state/county level actions (112 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 Hills' on-road and building energy sectors in 2020. An additional reduction of 19,389 MT CO_2e will be achieved primarily through the following local measures, in order of importance: Implement SBX 7-7 (Water-4); Solar Installation for Existing Housing (Energy-7); and Equipment Upgrades at Wastewater Treatment Plants (Wastewater-2). Chino Hills' Plan has the greatest impacts on GHG emissions in the building energy, on-road transportation, and water conveyance sectors.

Figure 4.4-2 (Emissions Reduction Profile for Chino Hills) in Section 4.4.0 shows Chino Hills'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., 20 percent below the 2020 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 (~85 percent) of the total reductions needed to achieve the 2020 target.

Figure 4.4-3 (Emissions by Sector for Chino Hills) in Section 4.4.0 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 4.4-3 (Emission Reduction by Sector for Chino Hills) in Section 4.4.0 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 Hills exceeds its emissions reduction goal. Emissions sectors with the greatest percent reduction include the building energy, on-road transportation, and water conveyance sectors.

Figure 4.4-4 (Emission Reductions by Control and by Sector for Chino Hills) in Section 4.4.0 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 due to the implementation of SBX 7-7 (Water-4).

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 Hills General Plan promote sustainability.

While a separate document, the Regional Reduction Plan will be utilized as a companion document to the Chino Hills 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 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. Policies in the Land Use, Housing, and Air Quality elements of the General Plan seek to maximize efficient use of resources, maintain a high quality of life, enhance job opportunities, promote sustainability, and facilitate access to transportation facilities.

Therefore, because the proposed Regional Reduction Plan furthers the goals of the identified land use plans and would not conflict with those plans, including the City's 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 also ensure compliance with AB 32, which would be a benefit of the project.

Threshold	Would the project conflict with any applicable habitat conservation plan or natural community conservation plan?

Implementation of the Regional Reduction Plan measures selected by Chino Hills (solar energy systems on existing housing, Smart Bus technologies, wastewater treatment plant equipment upgrades, and water efficiency measures) would not involve ground-disturbing activities that could affect habitats or species. There would be ***no impact***.

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. Therefore, ***cumulative impacts would be less than significant***.

References

Chino Hills, City of. 1994, as amended through 2008. *City of Chino Hills General Plan*, September 13.

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

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

4.4.11 Mineral Resources

This section of the EIR analyzes the potential environmental effects on mineral resources in the City of Chino Hills from implementation of the Regional Reduction Plan. Data for this section were taken from the Chino Hills General Plan (1994) and associated environmental documents. 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

No significant mineral deposits are known to exist in Chino Hills, according to the California Division of Mines and Geology. However, immediately outside the city limits in the extreme southeast corner, Mines and Geology has classified sand and gravel resources along the Santa Ana River wash as "MRZ-2," defined as "areas where adequate information indicates that significant mineral deposits are present ... or where it is judged that a high likelihood for their presence exists." Much of this area is within Chino Hills State Park.

Regulatory Framework

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 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.

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, Chapter 9, Division 2 of the PRC, 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.

Areas subject to California mineral land classification studies are divided by the State Geologist into various Mineral Resource Zones (MRZ) that reflect varying degrees of mineral potential. The four main classifications are the following:

- **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.

Regional

There are no regional regulations pertaining to mineral resources.

Local

There are no local regulations pertaining to mineral resources that would be most applicable to 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 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?

No significant mineral deposits are known to exist in Chino Hills; therefore, no MRZ-2 designated areas are within the City. No impact would occur.

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?

As stated above, no significant mineral deposits are known to exist in Chino Hills. Therefore, no impact would occur.

Cumulative Impacts

Implementation of the Regional Reduction Plan in Chino Hills would not result in any impacts at the project level. Therefore, there would be ***no cumulative impact***.

References

Chino Hills, City of. 1994, as amended through 2008. *City of Chino Hills General Plan*, September 13.

———. n.d. *City of Chino Hills 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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4.4.12 Noise

This section of the EIR analyzes the potential environmental effects on noise in the City of Chino Hills from implementation of the Regional Reduction Plan. Data for this section were taken from Chino Hills General Plan (1994) and associated environmental documents. 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 4.4.12-1 (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 General Plan Noise Element and the Municipal Code Noise Control chapter, 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 4.4.12-1 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 (1000 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

Existing Setting

The most common sources of noise in developed areas are transportation related noise sources. These include automobiles, trucks, motorcycles, railroads, and aircraft. Motor vehicle noise is of concern because of its high number of individual events which often create a sustained noise level and its proximity to areas sensitive to noise exposure.

State Highway 71 is the single greatest noise generator in the city.

The City of Chino Hills is bisected by several arterial roadways. Carbon Canyon Road, Chino Hills Parkway and Grand Avenue are the primary arterial roads in the city, carrying local and regional traffic.

Other major arterials, which generate potentially adverse traffic noise include Ramona Avenue, Soquel Canyon Road, Peyton Drive, Pipeline Avenue, and Chino Avenue.

The City is located approximately 8 miles southwest of the Ontario International Airport. Aircraft overflight contributes to the ambient noise in the City. However, the impacts from these airports are not significant due to its distance from the City.

Stationary sources of noises may occur from all types of land uses. Residential uses would generate noise from landscaping, maintenance activities, and air conditioning systems. Commercial uses would generate noise from heating, ventilation, air conditioning (HVAC) systems, loading docks and other sources. Industrial uses may generate HVAC systems, loading docks and possibly machinery. Noise generated by residential or commercial uses are generally short and intermittent. Industrial uses may generate noise on a more continual basis due to the nature of its activities.

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.

California Department of Health Services (DHS)

The effects of noise elves on various land uses were studied by the California Department of Health Services (DHS) Office of Noise Control. Based on that study, the DHS established four categories for to determine the severity of noise impacts on these various land uses.

Table 4.4.12-2 (Land Use Compatibility for Community Noise Exposure) details a compatibility chart for community noise with respect to land use as prepared by the California Office of Noise Control. It identifies four categories of exterior noise levels for different land uses. These categories are, normally acceptable, conditionally acceptable, normally unacceptable, and clearly unacceptable. Conditionally acceptable indicates that new development of that land use should only be undertaken after a detailed analysis of the noise and required noise insulation features to reduce interior noise levels have been incorporated into the design. A normally acceptable designation, by contrast, indicates that standard development can occur with no special noise reduction requirements.

The state interior and exterior noise standards for varying land uses are included in Table 4.4.12-3 (California Interior and Exterior Noise Standards). This represents standards for interior noise as well as exterior noise within "habitable" areas.

Regional

There are no regional regulations related to noise.

Local

Chino Hills Noise Ordinance

The City has adopted a noise ordinance as part of the City's Development Code, which establishes ambient noise standards for all property within various noise zones.

Chino Hills General Plan

The Chino Hills General Plan policies that are applicable to noise[11] are as follows:

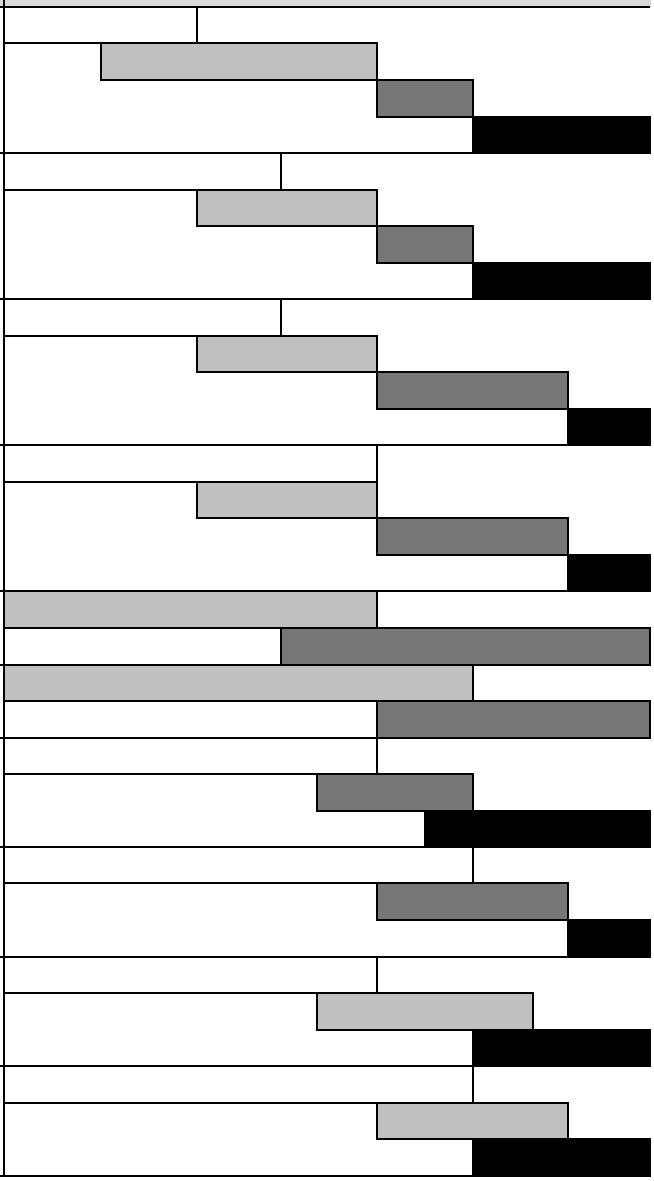
Noise Element

Policy 1-4 Minimize through vehicular traffic in the City's residential areas.

[11] 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.

Table 4.4.12-2 Land Use Compatibility for Community Noise Exposure

Land Use Category	*Use*	*Exterior Noise Level (CNEL)* 55 60 65 70 75 80
Residential/ Lodging	Single-Family/Duplex/Mobile homes	
	Multi-Family	
	Hotel/Motel	
Public/ Institutional	Schools/Hospitals/Churches, Hospitals, Nursing Homes	
	Auditoriums/Concert Halls	
Recreational	Sports Arena, Outdoor Spectator Sports	
	Playgrounds, Neighborhood Parks	
	Golf Courses, Riding Stables, Water recreation, Cemeteries	
Commercial	Office Buildings, business, commercial, and Professional	
Industrial	Industrial, Manufacturing, Utilities, Agriculture	



SOURCE: California Office of Noise Control and the Governor's Office of Planning and Research.

CLEARLY ACCEPTABLE—Specified land use is satisfactory, based upon the assumption that buildings involved are of normal conventional construction, without any special noise insulation requirements.

NORMALLY ACCEPTABLE—New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features included in the design.

NORMALLY UNACCEPTABLE—New construction or development should be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made with noise insulation features included in the design.

CLEARLY UNACCEPTABLE—New construction or development clearly should not be undertaken.

Table 4.4.12-3 California interior and Exterior Noise Standards

Land Use		*CNEL (dBA)*	
Categories	*Uses*	*Interior*[a]	*Exterior*[b]
Residential	Single and multi-family, duplex	45[c]	65
	Mobile homes	—	65[d]
Commercial	Hotel, motel, transient housing	45	—
	Commercial retail, bank, restaurant	55	—
	Office building, research and development, and professional offices	50	—
	Amphitheatre, concert hall, auditorium, movie theatre	46	—
	Gymnasium (Multipurpose)	50	—
	Sports Club	55	—
	Manufacturing, warehousing, wholesale, utilities	65	—
	Movie theatres	45	—
Institutional/Public Space	Hospital, school classroom/playground	45	65
	Church, Library	45	—
Open Space	Park	—	65

SOURCE: California Office of Noise Control and the Governor's Office of Planning and Research.

a. Indoor environment excluding: bathrooms, kitchens, toilets, closets, and corridors.

b. Outdoor Environment Limited to:
   - Private yard of single-family dwellings
   - Multi-family private patios or balconies accessed from within the dwelling (Balconies 6 feet deep or less are exempt)
   - Mobile home parks
   - Park Picnic area
   - School playgrounds
   - Hospital patios

c. Noise level requirement with closed windows, mechanical ventilation or other means of natural ventilation shall be provided in Chapter 12, Section 1205 of the Uniform Building Code.

d. Exterior noise levels should be such that interior noise 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 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. Implementation of the policies and programs of the Regional Reduction Plan would augment existing City programs and policies with regard to transit-oriented development. The location or extent of new renewable energy-generating facilities structures such as solar arrays 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.

The Noise Element of the 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 Hills Noise Ordinance and Chino Hills General Plan Policies 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 Hills 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 installation of photovoltaic arrays 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 Hills 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 Hills General Plan Final EIR. Chino Hills Noise Ordinance and Chino Hills General Plan Policies 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 Hills 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 Hills General Plan EIR. Chino Hills Noise Ordinance and Chino Hills General Plan Policies 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 Chino Hills 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 City is located approximately 8 miles southwest of the Ontario International Airport. Implementation of the Regional Reduction Plan would not result in a substantial increase in noise levels over what was analyzed in the Chino Hills General Plan EIR. Chino Hills Noise Ordinance, Chino Hills General Plan Policies, 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 Hills 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?

No private airstrips are located within or in close proximity to Chino Hills. Therefore, no impact would occur.

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 would be less than significant***.

References

California Department of Transportation (Caltrans). 1998. *Technical Noise Supplement*.

Chino Hills, City of. 1994, as amended through 2008. *City of Chino Hills General Plan*, September 13.

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

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

4.4.13 Population/Housing

This section of the EIR analyzes the potential environmental effects on population/housing in the City of Chino Hills from implementation of the Regional Reduction Plan. Data for this section were taken from the Chino Hills General Plan (1994), associated environmental documents, and the Housing Element. 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

The population of Chino Hills in 2010 was 74,799 (74,571 in 2008), making Chino Hills the ninth largest city in San Bernardino County. Population and employment are expected to grow modestly by 2020, by 3 and 12 percent, respectively, over 2008 baselines.

Table 4.4.13-1 (Socioeconomic Data for Chino Hills) presents socioeconomic data for Chino Hills including population, housing (single-family and multifamily), and employment (agricultural, industrial, retail, and nonretail).

Table 4.4.13-1 Socioeconomic Data for Chino Hills

Category	*2008*	*2020*
Population	74,571	76,558
Housing (du)	22,870	23,999
Single-Family (du)	19,061	19,964
Multifamily (du)	3,809	4,035
Employment (jobs)	9,302	10,452
Agricultural (jobs)	35	78
Industrial (jobs)	1,166	1,554
Retail Commercial (jobs)	3,167	3,253
Nonretail Commercial (jobs)	4,933	5,567

du = dwelling unit

The predominant development pattern in the City is the clustering of residential tracts within defined development areas with the steeper topography set aside as open space. A mix of medium- and higher-intensity apartment and townhouse projects are located within each development area. Most of the developable residential lands are built out. The remaining available residential sites are predominantly located in the hillside and environmentally sensitive areas.

Regulatory Framework

Federal

United States Department of Housing and Urban Development (HUD)

The United States Department of Housing and Urban Development's (HUD) 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 California housing element law (Government Code Sections 65580–65589) 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.

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 nonvehicle 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 Hills General Plan

The Chino Hills General Plan policies that are applicable to housing[12] in the context of implementing the Regional Reduction Plan in Chino Hills are as follows:

Land Use Element

Policy 3-8 Work with local agencies and jurisdictions to promote employment growth coordinated with the availability of adequate housing and transportation.

Housing Element

Policy 1.1 Provide a variety of residential opportunities in the City, including large lot estates, low density single- family homes, medium density townhomes, and higher density condominiums and apartments.

Air Quality Element

Policy 4-4 Develop a balance of land uses within the city to promote a reduction of distance between residence and workplace.

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

The programs and measures contained in Regional Reduction Plan were compared to applicable housing policies to determine if any inconsistency exists.

[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.

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 nor would it result in permanent employment-generating activities that would generate demand for housing. No extension of infrastructure is proposed. There would be ***no impact***.

Threshold	Would the project displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?

The Regional Reduction Plan would not involve the development of any structures or facilities that would displace existing housing. All proposed measures would occur at existing locations or within planned future development subject to discretionary approvals by the City. There would be ***no impact***.

Threshold	Would the project displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?

The Regional Reduction Plan would not involve the development of any structures or facilities that would displace people. All proposed measures would occur at existing locations or within planned future development subject to discretionary approvals by the City. There would be ***no impact***.

Cumulative Impacts

Because the Regional Reduction Plan would not result in significant impacts on population and housing at a project level, implementation of the Regional Reduction Plan would not create impacts that are cumulatively considerable. Therefore, there would be ***no cumulative impact***.

References

Chino Hills, City of. 1994, as amended through 2008. *City of Chino Hills General Plan*, September 13.

———. n.d. *City of Chino Hills 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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4.4.14 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 Hills from implementation of the Regional Reduction Plan. Park services are addressed in Section 4.4.15 (Recreation). Public and private utilities and service systems, including water, wastewater, and solid waste services and systems, are addressed in Section 4.4.17 (Utilities/Service Systems). Data for this section were taken from the Chino Hills General Plan (1994) and associated environmental documents. 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

San Bernardino County Fire Department

The San Bernardino County Fire Department (SBCFD) is responsible for firefighting operations within San Bernardino County and coordinates with the Chino Valley Independent Fire District for local needs within the City. The Office of Emergency Services (OES), a division within the SBCFD is responsible for broad emergency services coordination throughout the county, including the City of Chino Hills.

Chino Valley Independent Fire District

The City contracts with the Chino Valley Independent Fire District (CVIFD) for fire suppression, fire prevention, and paramedic services. CVIFD is headquartered in Chino Hills and serves the Chino Valley, which includes the cities of Chino Hills and Chino. The District is not a City Department, but is a separate political agency with its own elected Board of Directors. There are three stations within the City: Station 62 (Butterfield Ranch Road), Station 64 (16231 Canon Lane), and Station 66 (13707 Peyton Avenue).

The CVIFD has mutual aid agreements with the West End Fire Departments, the Los Angeles County Fire Department, and the California Department of Forestry. The CVIFD also participates in the State Master Mutual Aid System. The California Department of Forestry and Fire Protection augments fire protection services in the wildland areas that lie within the State Responsibility Area, such as Chino Hills State Park.

Police Protection Services

Chino Hills Police/Sheriff's Department

The City of Chino Hills has contracted with the San Bernardino County Sheriff's Department for law enforcement services since its incorporation in 1991. The Chino Hills Police Station is located just off of Peyton Drive in the Chino Hills Government Center. The Sheriff's Department provides perimeter and crowd control, restricts and reroutes traffic, and manages evacuations as required in Chino Hills.

Schools

Education in Chino Hills is provided by the Chino Valley Unified School District. There are a total of sixteen schools that operate within the City including eleven elementary schools, two junior high Schools, two high schools, and one alternative education center (Chino Valley Learning Academy).

Libraries

Library services are provided by the San Bernardino County Library system. James S. Thalman Chino Hills Branch Library is located within the City and is located on 14020 City Center Drive.

Regulatory Framework

Federal

Federal Fire Protection Standards

The National Fire Protection Association (NFPA) Code Section 1710 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).

Regional

There are no regional regulations applicable to public services.

Local

City of Chino Hills Municipal Code

The City of Chino Hills has adopted the 2007 Uniform Fire Code (Municipal Code Section 8.16.010). Municipal Code Title 15 regulates site and building development in accordance with applicable building codes.

Chino Hills General Plan

There are no public services policies that are directly applicable to implementing Chino Hills' Regional Reduction Plan reduction measures in Chino Hills.

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 reduction measures selected by Chino Hills in the Regional Reduction Plan were reviewed to determine if they would include elements that would directly or indirectly result in adverse environmental effects related to the provision of fire protection, emergency medical response, and police protection services or schools or libraries

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, police protection, schools, or libraries?

Demand for fire protection and law enforcement services is generally based on population and land use changes that increase the number of facilities and structures requiring these services. None of the measures selected by Chino Hills in the Regional Reduction Plan would increase resident population in the City; therefore, service ratios, response times, or performance objectives would not be affected. Implementation of the measures would not result in new or expanded facilities requiring fire protection or law enforcement services; therefore, there would be no demand for new or altered fire or police facilities, the construction of which could result in environmental impacts. Similarly, the demand for schools and libraries is population-based. None of the measures selected by Chino Hills in the Regional Reduction Plan would increase resident population in the City, requiring the need for new or expanded schools or libraries, the construction of which could result in environmental impacts. Therefore, there would be ***no impact***.

Cumulative Impacts

Implementation of the Regional Reduction Plan measures in Chino Hills would not result in any project-level impacts. Therefore, there would be ***no cumulative impacts***.

References

Chino Hills, City of. 1994, as amended through 2008. *City of Chino Hills General Plan*, September 13.

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

Chino Hills California. 2013. Chino Valley Independent Fire District. http://www.chinohills.org/index.aspx?NID=156 (accessed May 21, 2013)

Chino Hills California. 2013. Chino Hills Police. http://www.chinohills.org/index.aspx?nid=264 (accessed May 21, 2013).

National Fire Protection Association (NFPA). 2013. NFPA 1710. http://www.nfpa.org/aboutthecodes/AboutTheCodes.asp?DocNum=1710 (accessed February 20, 2013).

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

San Bernardino County Library. 2013. James S. Thalman Chino Hills Branch Library. http://www.sbcounty.gov/library/home/default.aspx?page=librarybranches/librarybranches.ascx&branchid=chs (accessed May 21, 2013).

4.4.15 Recreation

This section of the EIR analyzes the potential environmental effects on public parks and other recreational facilities in the City of Chino Hills from implementation of the Regional Reduction Plan. Data for this section were taken from the Chino Hills General Plan (1994) and associated environmental document. 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

Chino Hills offers unique and diverse recreational opportunities throughout the City. These include natural open spaces, community buildings, barbecues, meeting rooms, tot lots, picnic tables, lakes, streams, sports courts and fields, passive areas, trails, playgrounds, a skate park, equestrian center and equestrian staging areas. Facilities include Chino Hills Civic Center, Chino Hills Community Park, Chino Hills trails, Corral Ridge Park, Crossroads Park, English Springs Park, Grand Avenue Park, Hidden Hills Park, Hunters Hill Park, McCoy Equestrian and Recreation Center, Mystic Canyon Park and Community Building, and Sleepy Hollow Community Building. Total parkland acreage within the City is 284 acres. Other facilities in Chino Hills provide recreation opportunities, but are not controlled or operated by the City and are not included in the parkland acreage number. Chino Hills State Park and the Los Serranos Golf Country are examples of such.

Trails and Recreational Linkages

The City of Chino Hills updated the Trails Master Plan in 2001. The plan is guides the planning, development, maintenance and use of the City's trails network. The City's trail system (Figure 4.4.15-1 [Trailhead Location and Connecting Trails]) as it develops into a comprehensive, linked network, is meant to provide increased access to parks and open space within the City, as well as to the State Park, neighboring cities, and to other regional trail networks. The trails within the City's system will include the following categories: Urban Multi-Use Trails, Rural Multi-Use Trails, Multi-Use Combination Trails and Urban Bike Lanes in Streets. Urban Multi-Use Trails will be typically located adjacent to City Streets. Rural Multi-Use Trails are generally made up of compacted, undisturbed soil, without fencing, and located within the City-owned open space areas. Multi-Use Combination Trails will typically be used in areas where it will enhance and/or complete existing trails of this type already located within the City. Urban Bike Lanes in Streets are Class II and Class II designated bike routes.

Regulatory Framework

Federal

There are no federal regulations that are applicable to the provisions of recreation, park, and trail facilities in Chino Hills.

State

Quimby Act

The Quimby Act (California Government Code Section 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.

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 San Bernardino County Regional Parks division operates the Mojave Narrows Regional Park and Mojave River Forks Regional Park.

Local

City of Chino Hills Municipal Code

Chapter 3.40 (Various Facilities Fees) outlines the various fees that apply to all new residential construction within certain areas of the City.

Chino Hills General Plan

The Chino Hills General Plan policies that are applicable to recreational facilities that include pedestrian and bicycle trail networks[13] are as follows:

Parks, Recreation, and Open Space Element, Trails

Policy 3-1 Provide a multi-use trail system that safely accommodates bicycles, hikers, and equestrians.

Policy 3-2 Integrate the planning for the trail networks with the planning for streetscapes, parks, and open space.

Policy 3-9 Where possible, provide trail connections to regional trails, and recreation facilities in adjacent communities.

[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.

Trailhead Locations & Connecting Trails

1 Meadows Park Trailhead
6266 Butterfield Ranch Road
- Meadows Park Loop
- Adobe Trail Lookout
- East View Trail
- Butterfield Run Trail

2 Fairfield Ranch Park Trailhead
16343 Fairfield Ranch Road
- Rincon Trail

3 Alterra Park Trailhead
4921 Soquel Canyon Parkway
- Alterra Trail Lookout
- Slate Trail Loop
- State Trail Loop

4 Torrey Pines Park Trailhead
5011 Torrey Pines Drive
- Torrey Pines Trail Loop
- Serranos Trail

5 Hollow Run Nature Park Trailhead
15959 Peyton Drive
- Hollow Run Trail
- Eucalyptus Nature Trail
- Woodview Road Trail
- Vellano Park Trail Loop (North)
- Vellano Park Trail Loop (South)
- Cantena Canyon Trail

6 Hickory Creek Park Trailhead
15445 Hickory Creek Lane
- Hickory Creek Trail
- Cinnamon Trail Loop
- Strickling Nature Trail

7 Oakridge Park Trailhead
15444 Valle Vista Drive
- Oakridge Trail

8 Crossroads Park Trailhead
2765 Chino Hills Parkway
- Crossroads Park Loop
- Coral Ridge Trail
- Coral Ridge Trail Lookout

9 Sunset Park Trailhead
1510 Rancho Hills Drive
- Pleasant Hill Trail
- Ridgeview Loop

10 Ridgeview Drive Trailhead
Corner of Ridge View Drive & Windmill Creek Road
- Ridgeview Trail
- Sunset Loop

11 McCoy Center Trailhead
14276 Peyton Drive
- Helen McCoy Trail Loop
- English Springs Loop
- Eucalyptus Trail Loop

12 Grand Avenue Trailhead
1301 Grand Avenue
- Grand Avenue Park Walk
- Grand Avenue Trail
- Oak Grove Trail Loop

13 La Sierra Drive Trailhead
Corner of La Sierra Drive and Monteverde Drive
- La Sierra Trail Loop
- Monteverde Trail Loop

14 Madrugada Drive Trailhead
Corner of Madrugada Drive & Grand Avenue
- Madrugada Trail

15 Stagecoach Trailhead
Corner of Stagecoach Trail & Rock Springs Road
- Rock Springs Trail

Legend
- Trail Access Points
- Photograph Reference
- All Access
- Easy
- Moderate
- Difficult
- Flood Control Channel Trail
- Bicycle Trails
- Proposed Trails
- Future Trails
- State Park
- Parks
- Open Space

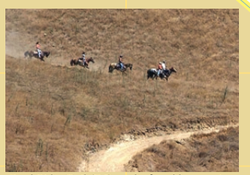
3/2010

La Sierra Trail Loop (C2) can be found by accessing the La Sierra Drive Trailhead.

State Park Trail (H9) is accessed from the Alterra Park Trailhead.

Adobe Trail Lookout (J11) can be accessed from the Meadow Park Trailhead.

accessed from the McCoy



Coral Ridge Trail (D5) can be found by accessing the Crossroads Park Trailhead.

Grand Avenue Trail (B3) is accessed from the Grand Avenue Trailhead.

Source: City of Chino Hills.

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NORTH
NOT TO SCALE

Figure 4.5.15-1
Trailhead Location and Connecting Trails

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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 reduction measures selected by Chino Hills in the Regional Reduction Plan were reviewed to determine if they would include elements that would directly or indirectly result in environmental effects on existing recreation facilities or through construction of new facilities.

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?

Demand for existing parks and recreational facilities is based on population. The Regional Reduction Plan would not increase resident population in the City; therefore, implementation of the GHG reduction measures would not affect the demand for and use of existing recreational facilities such that significant adverse environmental effects would occur. Therefore, there would be ***no impact***.

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. However, polices in the General Plan support regional bicycle network planning. Therefore, there would be ***no impact***.

Cumulative Impacts

Because the Regional Reduction Plan does not create significant impacts on recreation facilities at a project level, implementation of the Regional Reduction Plan would not create impacts that are cumulatively considerable. Therefore, ***cumulative impacts would be less than significant***.

References

Chino Hills, City of. 1994. *City of Chino Hills General Plan*, September.

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

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

4.4.16 Transportation/Traffic

This section of the EIR analyzes the potential environmental effects on transportation/traffic in the City of Chino Hills from implementation of the Regional Reduction Plan. Data for this section were taken from the Chino Hills General Plan (1994), associated environmental documents, 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

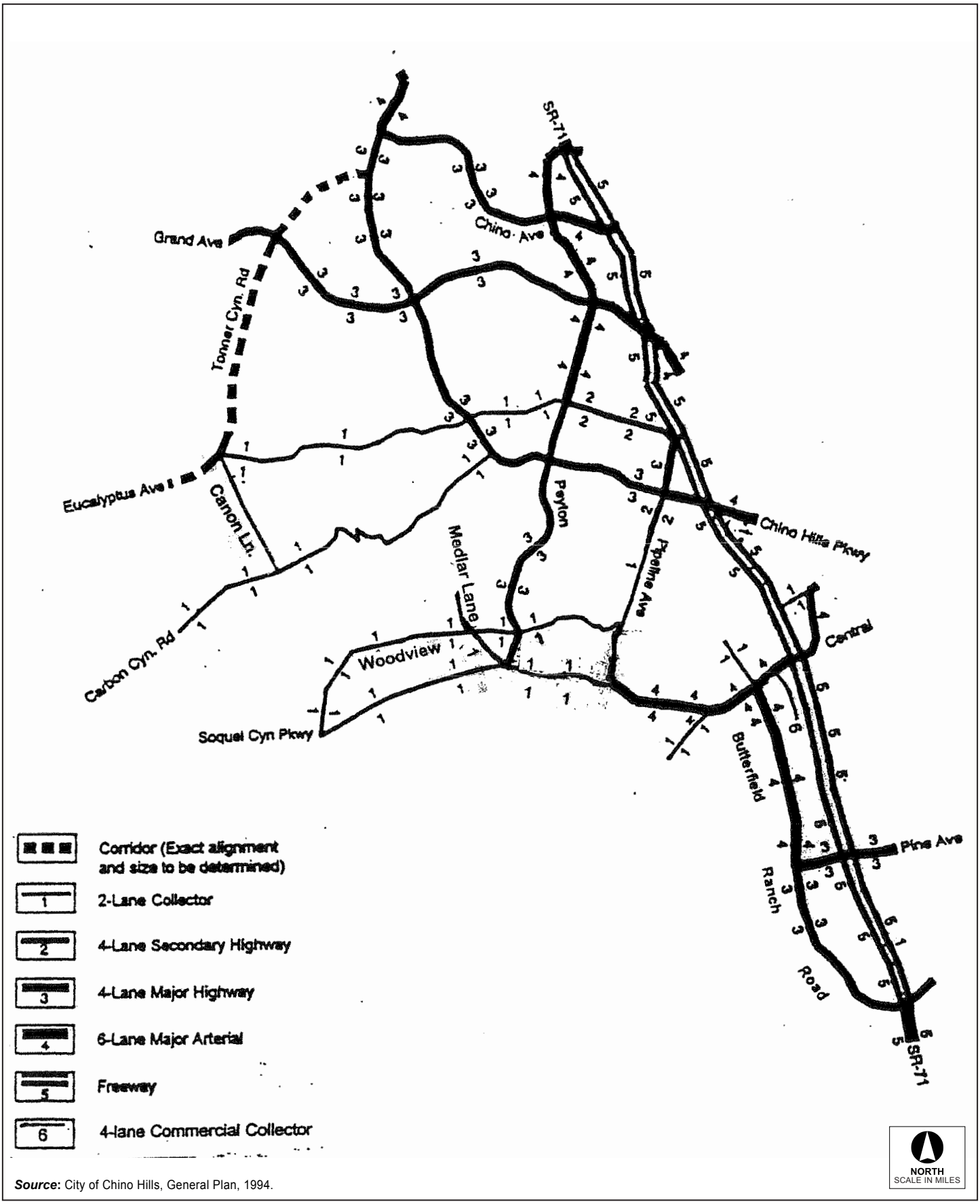
Existing Transportation Network

The City of Chino Hills' roadway system includes the classifications listed below: This classification is intended as a general description only to understand the movement of people and vehicles. Figure 4.4.16-1 (General Roadway Plan) shows the traffic network for the City.

- **Major Arterial**—A six-lane divided or undivided roadway designed to carry large volumes of local and regional traffic.
- **Major Highway**—A four-lane divided or undivided roadway designed to carry local and regional traffic.
- **Secondary Highway**—A four-lane undivided roadway designed to carry predominantly local traffic. (G.P, Res. No. 57)
- **Commercial Collector**—A four-lane divided or undivided roadway designed to carry large volumes of local and regional traffic. (99GPA01, Res. No. OOR-103)
- **Collector Street and Rural Collector**—A two-lane undivided roadway designed to serve local circulation.
- **Local Street and Restricted Local Street**—A two-lane undivided roadway designed to provide local access within communities.

Existing Traffic Conditions on the Roadway Network

According to the General Plan, the roadway system in Chino Hills generally operates at acceptable levels of service, but there are some congested locations. These include Carbon Canyon Road at the west City boundary, Chino Hills Parkway between Chino Valley Freeway and Pipeline Road, and Chino Valley Freeway.



***Source*:** City of Chino Hills, General Plan, 1994.

Figure 4.4.16-1
General Roadway Plan

ATKINS

Transit

Bus Transit

Omnitrans Transit Agency provides local transit service throughout San Bernardino County, including the City of Chino Hills. Local and inter-city public transit services are provided by Omnitrans. The City is currently served by Omnitrans bus routes No. 65 (Central Avenue) and No. 72 (Monte Vista Avenue, Pipeline Avenue, Grand Avenue, Chino Valley Freeway). Transit services to other counties and/or other cities can be obtained at two regional transfer centers located outside of Chino Hills: the Diamond Bar park-and-ride lot at Diamond Bar Boulevard/SR-60, and the Montclair Transcenter at Arrow Highway and Monte Vista Avenue. The services at these transfer centers include intercounty express bus service and commuter rail service.

Bicycle Routes

The City's bicycle routes are classified in three categories including Class I, Class II, and Class III. Class I bicycle paths have exclusive rights-of-way and serve bicyclists and pedestrians exclusively. Class II bicycle paths are located along major arterials and major and secondary highways; and Class III bicycle paths exist on expanded sidewalks along collector and local roads. According to the General Plan, the City's bicycle and pedestrian paths help to link the commercial, residential and open space uses within a village, and contribute to the sense of cohesiveness within a village.

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' (MPO) 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 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; to date, no region has adopted an SCS. The first of the RTP updates with SCS strategies are expected in 2012.

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. 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 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)

SANBAG is an association of local San Bernardino County governments. It is the 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 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 California requirements of a Bicycle Transportation Plan (BTP) for purposes of Caltrans Bicycle Transportation Account (BTA) funding.

Local

City of Chino Hills Municipal Code

Chino Hills Municipal Code Title 10 addresses vehicles and traffic in the City. Title 10 includes speed limits on various streets in the City, designates one-way streets and alleys, stop-controlled streets; identifies driving rules, restrictions on stopping, standing and parking; establishes permit parking districts and parking of recreational vehicles; and contains other regulations that promote public safety on streets, sidewalks and driveways. Title 12 (Streets, Sidewalks and Public Places) requires that an encroachment permit be obtained from the City Engineer for the construction of public improvements or the protection of public improvements from construction activities. Chino Hills Ordinance 109 addresses the purpose of development fees as related to the financing of various facilities and outlines how the fees are collected by the City.

Chino Hills General Plan

The Chino Hills General Plan contains the following policies regarding transportation, mobility and traffic[14]:

Circulation Element

Policy 2-1 In Objective # 1, Level of Service "D" is defined as 90 percent of capacity. Level of Service "E" is defined 100 percent of capacity. Capacity is defined as the maximum volume that can be carried on a roadway link or intersection in one hour.

Policy 2-2 The City of Chino Hills strongly supports and will actively advocate completion of the Chino Valley Freeway upgrade to full freeway standards from the city limits to State Route 91, including an improved Chino Valley Freeway/SR-91 interchange.

Policy 2-3 Construction of Tonner Canyon Road, while included in the Roadway Plan, is considered by the City of Chino Hills to be a regional project, and to the extent that this roadway serves regional needs, should be funded and developed by a regional agency, the state, or some combination of these agencies. The City views full construction of Tonner Canyon Road to the 57 Freeway as achievable within the timeframe of the General Plan, and will focus its efforts on completing this roadway.

Policy 2-4 The city supports the construction of an interchange on the Chino Valley Freeway at a location roughly halfway between the Euclid Avenue/Butterfield Ranch interchange and the Rte 91 Freeway, in order to provide future access to the southern portion of Chino Hills.

Policy 2-5 All improvements to and maintenance of the portion of Chino Hills Parkway/Carbon Canyon Road which is part of State Route 142 shall be the responsibility of the State of California. The City of Chino Hills will oppose any improvements along this roadway which are inconsistent with the Roadway Plan. Policy 2-6 Work with local, regional, and state agencies to ensure that planned circulation improvements are compatible with and contribute to the effectiveness of the regional transportation system.

Policy 2-7 Ensure, through the use of Environmental Impact Reports and mitigation requirements, that discretionary development projects do not cause roadway congestion in excess of acceptable levels of service within Chino Hills, or on CMP roadway links or intersections within five miles of the projects.

Policy 2-8 The City will maintain close coordination with Caltrans and the regional agencies to ensure the timely design and construction of important regional roadways such as the Chino Valley Freeway, Soquel Canyon Parkway, and Tonner Canyon Road.

Policy 2-9 Require all development projects to meet mandatory standards with regard to vertical and horizontal alignments, access control, rights-of-way, cross-sections,

[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.

intersections, sidewalks, curbs and gutters, cui-de-sacs, driveway widths and grades, right-of-way dedication and improvements, and curb cuts for the disabled.

Policy 2-10 Prohibit direct driveway access from individual residences to major arterials, major high ways, and secondary highways.

Policy 2-11 Develop a scenic highway overlay which defines the physical boundaries of the scenic corridors for Carbon Canyon Road and Soquel Canyon Parkway.

Policy 2-12 Formulate development standards to control site design and building placement, setbacks, access roads, landscaping, roads, pedestrian walkways, parking and storage areas, above ground utilities, grading, and signs within scenic corridors.

Policy 2-13 Work closely with state officials to obtain legislation designating Carbon Canyon Road as a Scenic Highway, upgrading its current status as a candidate for official designation.

Policy 2-14 Work with Omnitrans and other bus providers to expand transit routes serving Chino Hills and the surrounding communities.

Policy 2-15 Establish one or more park-and-ride lots to be located near freeway interchanges, and require secure and easily accessible park-and ride facilities.

Policy 2-16 Require bus turn-outs and shelters in residential, commercial, and industrial public use areas.

Policy 2-17 Adopt a citywide trip reduction ordinance, consistent with San Bernardino County CMP requirements, to reduce traffic congestion and improve air quality.

Policy 2-18 Retain the "switchbacks" on Carbon Canyon Road between Feldstar Drive and the Western Hills Country Club. (GP, Res. No. 57)

Policy2-19 Canon Lane shall be a private, gated roadway with emergency vehicle access and built to a modified local street standard. (03GPA03, Res. No. 05R-22}

Policy 2-20 With regard to Tonner Canyon Road, the City of Chino Hills proposes no specific alignment, but supports the development of this roadway in a manner which minimizes environmental effects and visual impacts.

City of Chino Hills Intersection Analysis Criteria

Level of service (LOS) is a qualitative measure of traffic service along a roadway or along an intersection. This method calculates vehicle delay based on the capacity of the intersection, with the length of delay defining the LOS at the intersection. The LOS is a qualitative and quantitative measure that describes the operational conditions and a motorist's and/or passenger's perception of travel conditions. LOS is designated a letter from A to F, with LOS A representing the best traffic conditions and LOS F representing the worst-case scenario with forced flow low operating speeds. Roadway performance is controlled by the performance of intersections, and more specifically, by intersection performance during peak hours. This is because traffic control at intersections interrupts traffic flow that would otherwise be relatively unimpeded. Thus, LOS typically depends on the quantity of traffic at the intersection. City objectives and policies require that LOS D be achieved and maintained on all roadway links and at all roadway intersections, with the exception of intersections within 0.5 mile of the State Route 71 Expressway/ Freeway, where LOS E shall be maintained.

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
- 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 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 Hills General Plan policies related to mobility. The Circulation Element contains a number of policies that would provide an integrated and balanced multi-modal transportation network to meet the needs of all users. They provide a transportation system that

includes connected transit, bicycle, and pedestrian networks. Additionally, the General Plan requires coordination with local authorities and other jurisdictions on regional transportation issues. The General Plan Circulation Element policies such as Policies 2-14, 2-15, and 2-16 ensure VMT reduction through greater transit opportunities and ridership. The Regional Reduction Plan reduction measure Transportation-2 ("Smart Bus" Technologies) requires the City of Chino Hills to work with Omnitrans. 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). Transit and nonmotorized transportation infrastructure built on all roadways require review by City Traffic Division staff for approval to ensure that the improvements do not negatively impact the traffic flow.

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 Hills, the CMP and Caltrans. This impact would be ***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 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 CMP roadways. Transit and nonmotorized transportation infrastructure built on all roadways, including CMP-designated roadways, require review by City Traffic Division staff for approval to ensure that the improvements do not negatively impact the traffic flow on these major arterials.

The City of Chino Hills require that LOS D be achieved and maintained on all roadway links and at all roadway intersections, with the exception of intersections within one-half mile of the SR-71 Expressway/ Freeway, where LOS E shall be maintained. Existing regulations require that development and redevelopment projects are reviewed by the City and comply with the City's LOS standard. Additionally, compliance with the City's funding system will enable completion of arterial roadway improvements, which correlates with CMP's goal to develop and implement a development mitigation program that includes payment of fair share fees for the needed transportation system improvements. This impact would be ***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. Solar arrays on existing homes would be reviewed to ensure appropriate setbacks. Smart Bus technologies, wastewater plant equipment upgrades, and water efficiency measures would not change roadway design features. This impact would be ***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 solar installation on existing homes, wastewater plant equipment upgrades, and water efficiency measures. None of these reduction measures would alter emergency access or evacuation plans. Improvements to transit infrastructure associated with Smart Bus technologies along roadways that would serve as emergency access and evacuation within the City would be reviewed by the City Traffic Division 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 listed in the Circulation Element, meant to improve and integrate the bicycle and pedestrian circulation system; and furthers the goals of the San Bernardino County Non-Motorized Transportation Plan. In addition the Regional Reduction Plan implements the SCS in the SCAG RTP, and Chino Hills General Plan Policies 2-14, 2-15, and 2-16 meant to improve the public transit system in the City. Transit and nonmotorized transportation infrastructure built on all roadways require review by City Traffic Division 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***.

References

Chino Hills, City of. 1994, as amended through 2008. *City of Chino Hills General Plan*, September 13.

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

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4.4.17 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 Hills from implementation of the Regional Reduction Plan. Data for this section were taken from the Chino Hills General Plan (1994), associated environmental document, and the 2010 Urban Water Management Plan (2012). 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

Water Sources and Service Systems

The City of Chino Hills sits on the Chino Groundwater Basin and in the Santa Ana River Watershed. The City relies on a variety of sources of water supply to meet demands, and several agencies other than the City are involved. Sources of water include groundwater from the Chino Basin through City wells, imported water from the State Water Project, and recycled water for nonpotable uses. The City works cooperatively with other agencies to achieve water supply reliability for its customers. Agencies involved in supplying water to the City are Inland Empire Utilities Agency (IEUA), Monte Vista Water District (MVWD), the Chino Basin Desalter Authority (CDA), and the Water Facilities Authority (WFA). IEUA is a member agency of the Metropolitan Water District of Southern California (MWD). Figure 4.4.17-1 (Water Supply Sources) shows the relative locations of each supply source provided to the City, as well as the location of the Chino Basin.

Groundwater

An important source of water for the City of Chino Hills is the Chino Groundwater Basin, a major aquifer system in the Santa Ana River watershed which provides both local yield and seasonal carry-over storage for water purveyors in the region. The City obtains about half of its water supply from groundwater, including groundwater extracted by the other agencies in the City. The City extracts groundwater from the Chino Groundwater Basin using its own wells located within the City of Chino Hills. The Basin is one of the largest groundwater basins in Southern California, containing about 5,000,000 acre-feet of water in storage, with an additional unused storage capacity of about 1,000,000 acre-feet. Cities and other water supply entities extract Basin groundwater for all or part of their municipal and industrial supplies. In addition, remaining agricultural users also pump from the Chino Basin. The average safe yield of the Basin is approximately 145,000 acre feet/year (afy). Annual groundwater production in recent years from the City's wells ranges from 852 afy (2005/06) to more than 3,100 afy, currently contributing 16 percent of the City's total supply.

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; 2005).

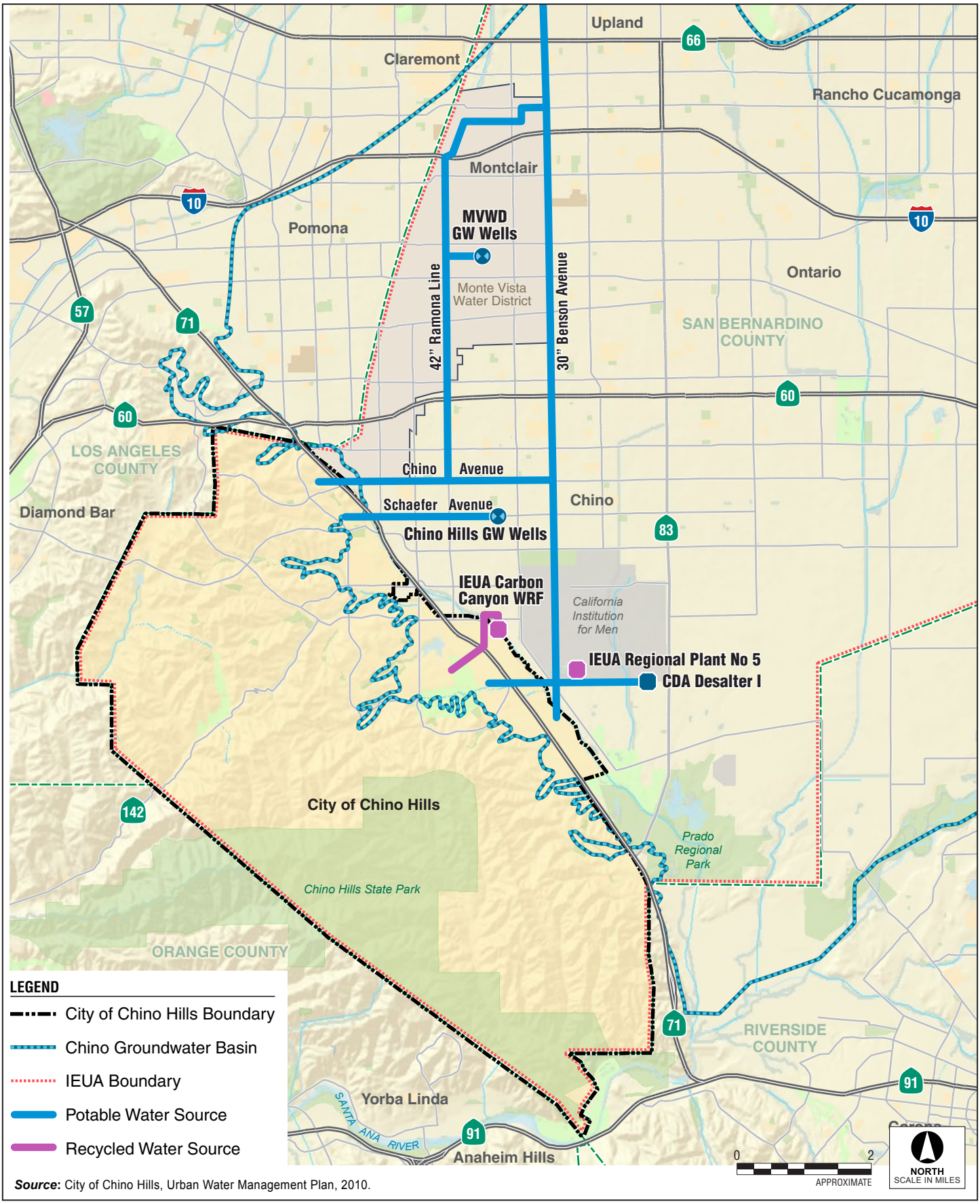
Inland Empire Utilities Agency

Chino Hills is a member agency of the IEUA. The IEUA is a member agency of MWD, which supplies imported water to its member agencies. IEUA also supplies recycled water to Chino Hills, as well as the cities of Chino, Fontana, Montclair, Ontario and Upland, and the Monte Vista Water District, the Jurupa Community Services District, and the Cucamonga Valley Water District. Although Chino Hills is a member of IEUA, it receives its imported water supplies through contract with MVWD and the Water Facilities Authority (Chino Hills 2012).

IEUA also serves recycled water to the City of Chino Hills. The City of Chino Hills uses recycled water provided by the IEUA primarily from the Carbon Canyon Wastewater Reclamation Facility (CCWRF) and Regional Plant 5 (RP-5). IEUA has grown into a major recycled water wholesaler for several water agencies in the region. In fiscal year 2010/11, IEUA provided over 1,600 afy to the City of Chino Hills. IEUA anticipates ultimate City recycled water deliveries of up to 2,500 afy (2.23 mgd average) (Chino Hills 2012).

The Water Facilities Authority

The City receives its imported water supply via WFA purchases and deliveries of SWP water. The SWP encompasses twenty-two 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. WFA is a joint powers agency formed for the specific purpose of funding the construction and operation of the Agua de Lejos Regional Water Treatment Facility, more commonly known as the WFA treatment plant. The facility is located in the City of Upland and treats the raw State Water Project water received through turnout IEUA #12 on MWD's Foothill Feeder Rialto Pipeline. WFA member agencies are the Cities of Upland, Ontario, Chino, and Chino Hills, and the Monte Vista Water District. The member agencies are joint owners of the treatment plant. WFA water enters Monte Vista Water District's potable water distribution system through two turnouts and provides WFA water to the City of Chino Hills through a turnout at Ramona Avenue south of Philadelphia Street. The plant has a current capacity of 81 million gallons per day (mgd), with flows averaging 60 to 70 mgd during peak summer months and as low as 12 mgd during the winter months. The City of Chino Hills owns 12.72 mgd of capacity (a 15.7 percent share) in the WFA treatment plant (Chino Hills 2012).



Source: City of Chino Hills, Urban Water Management Plan, 2010.

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Figure 4.4.17-1
Water Supply Sources

ATKINS

Monte Vista Water District

The MVWD provides retail and wholesale water supply services within its service area of 30-square miles. MVWD, along with the City, is a member agency of IEUA and the WFA. The City of Chino Hills purchased capacity rights from MVWD for a total of 20.22 mgd. Water delivered under the acquisition agreement is comprised of a combination of imported water through the WFA treatment plant and groundwater produced by MVWD wells. The MVWD water is conveyed through MVWD's transmission system as it combines with MVWD's local sources. It is estimated that the MVWD sources are roughly 50 percent imported water and 50 percent local sources. (Chino Hills 2012).

Chino Basin Desalter Authority

The City of Chino Hills 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 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. The City of Chino Hills is subscribed to 4.0 mgd in the Chino Desalter facilities, which provides more than 20 percent of its total water supplies. The current capacity of the desalter facilities is 27,600 afy and an expansion is currently underway to increase the capacity to 40,000 afy (Chino Hill 2012).

Wastewater Collection and Treatment

The City's wastewater collection system serves the higher-density land uses throughout the City, which represents the vast majority of the wastewater generated within the City of Chino Hills. The sewer infrastructure includes over 200 miles of sewer lines and seventeen pumps and motors. The collection system conveys all City-collected wastewater to Inland Empire Utilities Agency for treatment and reuse or disposal. In 2010/11, the City's wastewater was estimated at 7.90 mgd (Chino Hills 2012).

Solid Waste

The City of Chino Hills contracts with Chino Hills Disposal, a Republic Services Company, for all trash and recyclable collection services in the City. Residential areas are provided with three 110-gallon collection bins: one for trash, one for recyclables, and one for green waste materials. 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 fiscal year 2004, the City's Board-approved diversion rate was 61 percent (San Bernardino County 2007).

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 Hills. 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 Hills, 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.

For Internet service, transmission can be obtained through the phone lines for dial-up coverage or by broadband providers. 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 Hills 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 twenty-five 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 acre-feet 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. The City of Chino Hills 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.

Local

City of Chino Hills Municipal Code

Municipal Code Chapter 13.08 (Water Conservation) calls for the importance of minimizing the potential for water shortage through the practice of water conservation pursuant to California Water Code Sections 375 et seq., based upon the need to conserve water supplies and to avoid or minimize the effects of any future shortage. The Code finds it necessary to reduce the potential effect of a water shortage on the residents, businesses and visitors of Chino Hills and to adopt provisions that will significantly reduce the inefficient consumption of water, thereby extending the available water resources necessary for the domestic, sanitation, and fire protection of the community to the greatest extent possible.

Municipal Code Chapter 13.16 (Storm Drain System) prescribes regulations to effectively prohibit nonstormwater discharges into the City's stormwater drainage system. In addition, this section controls discharges from spills, dumping, or disposal of materials other than stormwater; reduces the discharge of pollutants in all stormwater discharges to the maximum extent practicable; and protects and enhances the water quality of local, state, and federal watercourses, water bodies, groundwater, and wetlands in a manner pursuant to and consistent with the Clean Water Act.

Municipal Code Chapter 13.20 (Integrated Waste Management) ensures that the City complies with state law regarding solid waste management by reduce waste generation, promoting reuse, and requiring solid waste collection for recycling and composting.

Municipal Code Chapter 13.32 (Reclaimed Water Regulations) pertains to reclaimed water service to lands and/or improvements lying within the legal boundaries of the city. The city shall provide reclaimed water service in accordance with this chapter to all areas identified in the City's Water Reclamation Master Plan including all subsequent revisions for the use of reclaimed water.

Municipal Code Chapter 16.44 (Wireless Communications Facilities) requires review of installation of antennas and wireless communication facilities.

Chino Hill General Plan

The Chino Hills Lake General Plan policies that are applicable to the development of infrastructure pertinent to utilities and service[15] systems include:

Land Use Element

Policy 1-7 For all future developments, require preservation of 80% of all native trees with trunks 4 or more inches in diameter.

Conservation Element, Water Usage and Conservation

Policy 3-1 Use reclaimed water for non-potable water supplies (e.g., landscaping) wherever economically feasible and not precluded by public health considerations.

Policy 4-2 Endorse regional and local air quality and transportation management plans in order to reduce air pollution emissions and vehicle trips.

Policy 4-9 Encourage the use of energy conservation devices in project design and construction to increase energy efficiency and decrease pollution from distant electrical power plants and onsite natural gas use.

Conservation Element, Energy Conservation

Policy 5-2 Encourage innovative site planning and building designs which minimize energy consumption by taking advantage of sun and shade patterns, prevailing winds, landscaping, and building materials.

Policy 5-3 Encourage new development and existing structures to install energy saving features beyond those required under State Title 24 energy regulations.

Conservation Element, Solid Waste

Policy 6-2 Publicize and educate the public about waste reduction techniques and facilities.

Policy 6-3 Require new developments to incorporate recycling locations into their sites.

Policy 6-4 Annually review waste collection performance to verify quality of service.

[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.

Parks, Recreation and Open Space Element

Policy 7-9	Design park facilities to minimize water use and maintenance demands.
Policy 7-10	Save water, control maintenance costs, reduce trash, and economize wherever possible through design, construction and management without sacrificing the quality of the landscape.
Policy 7-11	Follow water conservation principles in all aspects of landscape maintenance including plant selection and development of irrigation systems.
Policy 7-12	Consider using reclaimed water for irrigation of City landscapes when this source of water becomes available.
Policy 7-13	Develop a program for recycling green waste.
Objective 5-1	Evaluate the energy conservation potential of individual projects during the development review process. Monitor citywide energy use and trends.
Policy 7-3	Protect and carefully maintain the landscape to foster its value for air pollution mitigation, fire safety, wildlife habitat and recreation activities.

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. These water conservation strategies will reduce the amount of wastewater going to the 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. 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. Therefore, there would be ***no impact***.

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 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***.

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 any increase in impervious surfaces in the City. The Proposed Project includes installation of solar arrays for existing housing, implementation of smart bus technologies, and water efficiency strategies. The Proposed Project would not 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 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 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 water conservation strategies, such as low flow toilets, and more efficient water using appliances such as dishwashers to conserve water use. These reduction measures would not increase 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 water conservation strategies, such as low flow toilets, and more efficient water using appliances such as dishwashers to conserve water use. These reduction measures would not affect the City's solid waste recycling program. Therefore, the City would comply with all federal, state, and local statutes and regulations related to the recycling of solid waste. Consequently, 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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4.4.18 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 4.4-5 (Summary of Environmental Effects of Implementing Local Reduction Measures in Chino Hills), 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 4.4.1 through 4.4.17 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 4.4.4 (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 4.4.5 (Cultural Resources) of this EIR) 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 4.4.3, 4.4.6, 4.4.8, 4.4.9, 4.4.12, 4.4.13, 4.4.14, 4.4.16, and 4.4.17 of this EIR, respectively.

References

Kostka, Stephan L. and Michael H. Zischke. 2005. *Practice under the California Environmental Quality Act*.

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